

**BEFORE
THE NORTH CAROLINA UTILITIES COMMISSION**

DOCKET NO. E-2, SUB 1300

In the Matter of:)
)
Application of Duke Energy Progress, LLC)
For Adjustment of Rates and Charges)
Applicable to Electric Service in North)
Carolina and Performance-Based Regulation)

**SUPPLEMENTAL DIRECT
TESTIMONY OF
JULIE K. TURNER
FOR DUKE ENERGY
PROGRESS, LLC**

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Julie K. Turner. My business address is 411 Fayetteville Street,
3 Raleigh, North Carolina.

4 **Q. DID YOU PREVIOUSLY SUBMIT PRE-FILED DIRECT TESTIMONY**
5 **IN THIS PROCEEDING?**

6 A. Yes. I submitted pre-filed direct testimony that, in part, supported the
7 Traditional and Hydro projects that are a part of DEP's Multiyear Rate Plan
8 ("MYRP") included in DEP's Performance-Based Regulation Application
9 ("PBR Application" or the "Application") filed on October 6, 2022.

10 **Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL DIRECT**
11 **TESTIMONY?**

12 A. My supplemental direct testimony provides an update on the Traditional and
13 Hydro projects that are included in DEP's MYRP. First, I describe those
14 additional Traditional and Hydro MYRP projects that have been identified as
15 being placed in service during the MYRP period and those that have been
16 identified as no longer necessary. Second, I provide updated project cost
17 estimates for certain Traditional and Hydro MYRP projects, including
18 explanations for the basis for such updated cost estimates. Finally, I explain the
19 reasoning for the pro forma adjustment for operations and maintenance
20 ("O&M") expense for reliability assurance during the MYRP period presented
21 in the supplemental testimony of Company Witness LaWanda Jiggetts.

22

1 **Q. ARE YOU PROVIDING ANY EXHIBITS WITH YOUR**
2 **SUPPLEMENTAL DIRECT TESTIMONY?**

3 A. Yes. Turner Supplemental Exhibit 1 provides details regarding each of the
4 Traditional and Hydro MYRP projects supported by my testimony, including
5 projected cost, schedule, scope, and the reason for each project as required by
6 Commission Rule R1-17B(d)(2)j. Turner Supplemental Exhibit 2 compares the
7 list of Traditional and Hydro MYRP projects and their projected costs provided
8 in Turner Supplemental Exhibit 1 to the list of projects and associated projected
9 costs provided with my Direct Testimony. Turner Supplemental Exhibit 2 also
10 indicates at column N the reason for changes to these projects since the
11 Company filed its Application.

12 **Q. WERE THESE EXHIBITS PREPARED OR PROVIDED BY YOU OR**
13 **UNDER YOUR DIRECTION AND SUPERVISION?**

14 A. Yes.

15 **I. MYRP PROJECT UPDATES – TRADITIONAL/HYDRO**

16 **Q. IS DEP PROPOSING TO INCLUDE ANY NEW**
17 **TRADITIONAL/HYDRO PROJECTS AS PART OF ITS MYRP THAT**
18 **WERE NOT INCLUDED IN DEP'S PBR APPLICATION?**

19 A. Yes. The Company is proposing to include 15 new projects as part of this
20 supplemental update to the MYRP.

1 **Q. PLEASE DESCRIBE THE NEW TRADITIONAL/HYDRO PROJECTS**
2 **DEP IS PROPOSING TO INCLUDE IN ITS MYRP.**

3 A. DEP proposes to add a number of projects at its Roxboro Station that will help
4 ensure the reliability of these units. At Roxboro Unit 4, the IP turbine and HP
5 turbine packing replacement projects will replace the turbine packing at this
6 unit, which is the rings of metal strips that seal against the rotating shaft to
7 prevent steam leakage. Degraded packing can affect turbine efficiency and
8 packing failure can result in metal-to-metal contact with the rotor and create
9 high vibration due to hot spots. These projects are being proposed based on
10 original equipment manufacturer (“OEM”) recommendation to replace the
11 packing at the next outage to reduce the risk of packing failure.

12 Also at Roxboro Unit 4, based on the inspection of the air heater (“AH”)
13 hot end baskets and seals conducted during September 2022 the Company has
14 determined that the baskets and seals need to be replaced. Air preheater baskets
15 are metal baskets in a rotating element that transfer heat from the boiler exhaust
16 flue gas to inlet combustion air. Heating the inlet air increases boiler efficiency.
17 Inspection found hot end baskets with material loss due to erosion and
18 corrosion. The seals between the flue gas and inlet air were also found to be
19 worn. Replacing these components will restore unit efficiency and reduce risk
20 of derates due to failed baskets.

21 Knifegate sleeves and retaining rings are part of the flue gas
22 desulphurization or FGD system on the coal units and are exposed to the
23 extreme conditions of the scrubber, where heavy buildup of recycled ash affects

1 the reliability of the components. The knifegate sleeves and retaining rings on
2 Roxboro Units 2 and 4 have reached the point where they need replacement.

3 At Roxboro Unit 3, the selective catalytic reduction (“SCR”) mid-
4 catalyst layer is proposed to be replaced based on the recommendation resulting
5 from 2022 inspection results of Unit 3’s SCR layer. The purpose of the SCR is
6 to convert NOx in the flue gas into elemental nitrogen and water vapor, thereby
7 reducing NOx emissions for environmental protection and Title V compliance.
8 The catalyst helps to initiate the reduction of NOx and improve reactive
9 efficiency. Catalyst activity decreases with use and must be replaced
10 periodically to meet NOx removal limits. Based upon 2022 sampling, Unit 3’s
11 SCR needs replacement due to clogged catalyst openings and erosion of the
12 catalyst layer found during the inspection.

13 The Company has also added a sootblower project in each of the MYRP
14 Rate Years for Roxboro Station. The sootblowers remove accumulating ash
15 from the internal boiler tubes to prevent the plugging of hot gas flow through
16 the boiler. These projects will replace worn sootblower components to maintain
17 boiler efficiency and reliability.

18 The Company has also added a project to improve the reliability of the
19 FGD system components such as pumps, valves, and piping. FGD Absorber
20 Recycle (“AR”) pumps are used to control slurry levels to regulate emissions at
21 the coal units. The process water utilized in this process is abrasive and the
22 pumps require periodic rebuilds to maintain pump performance and reliability.
23 Equipment at both Mayo and Roxboro will be rebuilt.

1 For its gas fleet, the Company has added a combustion turbine
2 inspection project at Unit 4 at Asheville CC, which is a routine inspection that
3 is required based on the number of unit starts. In addition, the Company has
4 added a project at Richmond (Smith) CC to install a reverse osmosis process
5 water system, which will remove minerals and impurities from the process
6 water to improve quality and complement the demineralized water system
7 currently in use. Finally, a project to upgrade and update the existing controls
8 system at Sutton CC is needed to bring this system up to date and keep it
9 supported, functional, and reliable.

10 **Q. WHY WERE THESE PROJECTS NOT INCLUDED IN DEP'S PBR**
11 **APPLICATION?**

12 A. The Company identified the need for the projects based on condition
13 assessments conducted during fall 2022 inspections and ongoing evaluations of
14 efficiency and reliability.

15 **Q. HAS DUKE IDENTIFIED TRADITIONAL/HYDRO PROJECTS THAT**
16 **WERE INCLUDED IN DEP'S PBR APPLICATION THAT ARE NO**
17 **LONGER NECESSARY?**

18 A. Yes. The Company identified one project at Mayo Station and three projects at
19 Roxboro Station as no longer necessary.

20 **Q. WHY DID DEP CANCEL THE FOUR PROJECTS AT MAYO AND**
21 **ROXBORO STATIONS?**

22 A. The Company continually evaluates planned capital investments, including the
23 need for such projects. In the ordinary course of this planning process for Mayo

1 and Roxboro Stations, subsequent to the filing of my direct testimony, the
2 stations determined that the turbine blade replacement projects for Mayo Unit
3 1 and Roxboro Unit 4 were no longer needed. At the time the testimony was
4 filed, the Company believed that replacement of the blades for these units was
5 necessary. Subsequent to that time, based on analysis of a sample repaired blade
6 that returned from a vendor, the Company determined that repairing the blades
7 upon failure rather than replacing them at this time is a viable option (whereas
8 it had previously been through not to be viable) and will be more time- and cost-
9 effective.

10 In addition, the Company has determined that the right-angle gearbox
11 projects at Roxboro Units 3 and 4 are no longer needed. These projects were
12 intended to improve safety by modifying access to the gearboxes for
13 maintenance purposes. Subsequent to filing my direct testimony, the Company
14 has determined that with appropriate work planning, the safety concerns can be
15 mitigated without pursuing these projects.

16 **II. MYRP PROJECT COST UPDATES – TRADITIONAL/HYDRO**

17 **Q. IS DEP PROPOSING TO UPDATE COSTS ASSOCIATED WITH THE**
18 **TRADITIONAL/HYDRO MYRP PROJECTS INCLUDED IN DEP'S**
19 **PBR APPLICATION?**

20 **A.** Yes. As summarized in Witness Taylor's supplemental testimony, the Company
21 and Public Staff reached a consensus approach regarding the criteria pursuant
22 to which all Traditional and Hydro MYRP projects and their cost estimates
23 would be updated in this supplemental filing. Pursuant to this consensus

1 approach, my supplemental direct testimony describes the cost updates to all of
2 the Traditional and Hydro projects.

3 **Q. PLEASE EXPLAIN WHY THE COST ESTIMATES ASSOCIATED**
4 **WITH THE ABOVE-REFERENCED PROJECTS HAVE CHANGED**
5 **SINCE DEP FILED ITS PBR APPLICATION.**

6 A. The differences are due to having updated quotes or estimates for materials and
7 labor, in addition to adjustments in overheads, loadings, and AFUDC.

8 **Q. HOW DID DEP DEVELOP THESE UPDATED PROJECT COSTS?**

9 A. The Company developed the updated MYRP project costs in the same manner
10 as it developed the original cost estimates. As discussed in my direct testimony,
11 the Company's Project Management Guidelines, which include guidance for
12 project scope development and cost estimating, were applied to the calculate
13 updated projected costs for these projects. Cost estimates can be based on a
14 combination of vendor quotes or budgetary estimates for labor and materials,
15 estimates for internal labor and warehouse materials, and previous experience
16 on similar projects. Estimates for direct costs were entered into the PowerPlan
17 project management tool where overheads, labor loadings, and AFUDC were
18 calculated, to produce an overall projected cost.

1 **III. ADDITIONAL RELIABILITY-RELATED O&M**

2 **Q. WHY IS THE COMPANY MAKING A PRO FORMA ADJUSTMENT TO**
3 **O&M FOR RELIABILITY ASSURANCE AS PRESENTED IN**
4 **WITNESS JIGGETTS' SUPPLEMENTAL TESTIMONY?**

5 A. This adjustment included in Witness Jiggetts testimony increases by \$7.8
6 million the test period O&M related to planned reliability assurance projects.
7 These additional projects have been identified as being necessary to contribute
8 to the reliability of Roxboro and Mayo plans and include winterization projects
9 (such as upgrading heat trace systems and installing additional wind breaks to
10 protect equipment). This work will increase O&M at the Roxboro and Mayo
11 plants over and above what was in the test period. The adjustment in Witness
12 Jiggetts testimony reflects the average of the identified incremental O&M over
13 a three year period.

14 **Q. DOES THIS CONCLUDE YOUR SUPPLEMENTAL DIRECT**
15 **TESTIMONY?**

16 A. Yes.

DUKE ENERGY PROGRESS, LLC
MYRP PROJECTS - SUPPLEMENTAL
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Line No.	MYRP Project Name	FERC Function	Project Forecasted In-Service Date	MYRP Project Description & Scope	Reason for the MYRP Project	Total Project Amount (System)			
						Projected In-Service Costs	Projected Annual Net O&M	Projected Installation O&M	
1	ACC Exhaust Gas Temperature Cooling	Other Production Plant In Service	Oct-25	MYRP Project Description & Scope Addition of an Overboard Bleed System (OBB) to improve Asheville CC Exhaust Gas Temperature Cooling Capability	Addition of an Overboard Bleed System (OBB) will reduce high exhaust gas temperatures at low load operation while maintaining emissions compliance. Extended low-load capability will in turn accommodate daytime solar generation without taking unit offline.	\$ 5,231,716	\$ -	\$ -	
2	ACC ST6 Generator Stator Rewind	Other Production Plant In Service	Apr-24	Rewind Asheville CC Steam Turbine 6 Generator Stator	The generator stator bar rewind with new insulation will prevent potential ground faults due to insulation cracking, thereby improving reliability of ST6.	\$ 2,466,917	\$ -	\$ -	
3	ACC ST8 Generator Stator Rewind	Other Production Plant In Service	Nov-24	Rewind Asheville CC Steam Turbine 8 Generator Stator	The generator stator bar rewind with new insulation will prevent potential ground faults due to insulation cracking, thereby improving reliability of ST8.	\$ 2,616,872	\$ -	\$ -	
4	AGP Peaker Upgrade	Other Production Plant In Service	Dec-23	GE Advance Gas Path (AGP) Peaker upgrade for Smith Combustion Turbine Unit 6.	The GE Advance Gas Path (AGP) Peaker upgrades, in which the Hot Gas Path hardware is upgraded to allow for increased flow through the turbine while maintaining current NOx and CO emissions limits, provide a 10 MW increase per unit. Upgraded parts life intervals are also extended from 900 to 1250 starts and unit ramp rate is doubled.	\$ 3,808,786	\$ -	\$ -	
5	AGP Peaker Upgrades	Other Production Plant In Service	Apr-23	GE Advance Gas Path (AGP) Peaker upgrade for Smith Combustion Turbine Unit 4.	The GE Advance Gas Path (AGP) Peaker upgrades, in which the Hot Gas Path hardware is upgraded to allow for increased flow through the turbine while maintaining current NOx and CO emissions limits, provide a 10 MW increase per unit. Upgraded parts life intervals are also extended from 900 to 1250 starts and unit ramp rate is doubled.	\$ 2,996,944	\$ -	\$ -	
6	Asheville CT HGPI Unit 5	Other Production Plant In Service	May-24	Asheville Unit 5 Combustion Turbine Hot Gas Path Inspection	Perform a standard hot gas path inspection in accordance with OEM and company engineering standards. GE 7F Gas Turbines require major maintenance at set intervals based on the number of run hours. It is projected that this unit will reach or exceed the number of run hours required to perform this maintenance in 2024.	\$ 20,291,263	\$ -	\$ -	
7	Asheville CT HGPI Unit 7	Other Production Plant In Service	Oct-24	Asheville Unit 7 Combustion Turbine Hot Gas Path Inspection	Perform a standard hot gas path inspection in accordance with OEM and company engineering standards. GE 7F Gas Turbines require major maintenance at set intervals based on the number of run hours. It is projected that this unit will reach or exceed the number of run hours required to perform this maintenance in 2024.	\$ 20,230,926	\$ -	\$ -	
8	Asheville ST Valves Unit 6	Other Production Plant In Service	Apr-24	Asheville CC Unit 6 Steam Turbine Valves Capital Maintenance	Replace capital valve components of the Asheville CC Steam Turbine 6 Valves based on Duke Turbine/Generator Services recommended maintenance interval.	\$ 2,580,421	\$ -	\$ -	
9	Asheville ST Valves Unit 8	Other Production Plant In Service	Oct-24	Asheville CC 8 Steam Turbine Valves Capital Maintenance	Replace capital valve components of the Asheville CC Steam Turbine 8 Valves based on Duke Turbine/Generator Services recommended maintenance interval.	\$ 2,533,645	\$ -	\$ -	
10	Asheville Unit 04 Generator Field Rewind	Other Production Plant In Service	Nov-24	Asheville Unit 4 Generator Field Rewind	Generator Rewind recommended by Duke Turbine/Generator Services based on inspections that show core shift/loosening.	\$ 2,263,203	\$ -	\$ -	
11	BLH - Fish Passage	Hydro Plant in Service	Oct-23	Addition of Fish Passage Protections at Blewett Falls Hydro Station pursuant to new FERC operating license	The new FERC operating license for Blewett Falls and Tillery hydroelectric plants requires the installation of fish passage structures to accommodate movement of American shad and American eel.	\$ 104,765,466	\$ -	\$ -	
12	BLH U4 Replace Turbine Runner	Hydro Plant in Service	Dec-25	Replace Turbine Runner at Blewett Falls Hydro Station, Unit 4	Original turbine runner is 100 years old, experiences cavitation during operation, and requires increasing maintenance. Replacement with a modern design turbine runner will increase output by 1.4 MW and reduce O&M maintenance costs.	\$ 10,576,026	\$ -	\$ -	
13	Combined Cycle Unit Flexibility Upgrade (Asheville)	Other Production Plant In Service	Nov-24	Asheville PB1 and PB 2 CC Unit Flexibility Upgrade	Install HRSG damage monitoring system to calculate real time creep and fatigue life of pressure parts (Asheville PB1 and PB2, Smith PB5)	\$ 925,000	\$ -	\$ -	
14	Combined Cycle Unit Flexibility Upgrade (Smith)	Other Production Plant In Service	Nov-24	Smith PB5 CC Unit Flexibility Upgrade	Install HRSG damage monitoring system to calculate real time creep and fatigue life of pressure parts (Asheville PB1 and PB2, Smith PB5)	\$ 925,000	\$ -	\$ -	
15	Combined Cycle Unit Flexibility Upgrade (Sutton)	Other Production Plant In Service	Sep-26	Sutton PB1 CC Unit Flexibility Upgrade	Install HRSG damage monitoring system to calculate real time creep and fatigue life of pressure parts (Sutton PB1)	\$ 950,000	\$ -	\$ -	
16	Darlington Unit 12 Combustion Inspection	Other Production Plant In Service	Mar-26	Darlington Unit 12 CT Combustion Inspection	Perform a standard combustion path inspection in accordance with OEM and company engineering standards. Recommended interval for a major combustion inspection is based upon a combination of operating hours and number of start/stop cycles.	\$ 3,535,426	\$ -	\$ -	
17	FERC BLH Raise Dam Crest	Hydro Plant in Service	Dec-24	Raise dam crest pursuant to FERC requirements at Blewett Hydro facility	FERC license requires prevention of overtopping due to wave run up during Probable Maximum Flood (PMF) event. Scope includes raising dam crest approximately 2 feet, widening dam crest, and hardening upstream face of Blewett Dam.	\$ 1,086,516	\$ -	\$ -	
18	HF Lee 01A LTSA HGPI	Other Production Plant In Service	Oct-25	HF Lee Unit 1A Combustion Turbine Hot Gas Path Inspection under Long Term Service Agreement (LTSA)	Perform a standard hot gas path inspection in accordance with OEM and company engineering standards. Siemens 501F Gas Turbines require major maintenance at set intervals based on run hours. It is projected that this unit will reach run hours required to perform this maintenance in 2025.	\$ 2,693,018	\$ -	\$ -	
19	HF Lee 01B LTSA HGPI	Other Production Plant In Service	Dec-25	HF Lee Unit 1B Combustion Turbine Hot Gas Path Inspection under Long Term Service Agreement (LTSA)	Perform a standard hot gas path inspection in accordance with OEM and company engineering standards. Siemens 501F Gas Turbines require major maintenance at set intervals based on run hours. It is projected that this unit will reach run hours required to perform this maintenance in 2025.	\$ 2,668,253	\$ -	\$ -	
20	HF Lee 01C LTSA HGPI	Other Production Plant In Service	Oct-25	HF Lee Unit 1C Combustion Turbine Hot Gas Path Inspection under Long Term Service Agreement (LTSA)	Perform a standard hot gas path inspection in accordance with OEM and company engineering standards. Siemens 501F Gas Turbines require major maintenance at set intervals based on run hours. It is projected that this unit will reach run hours required to perform this maintenance in 2025.	\$ 2,666,959	\$ -	\$ -	
21	HF Lee Emerson Ovation BOP Evergreen	Other Production Plant In Service	Jun-24	HF Lee CC Emerson Evergreen Balance of Plant (BOP) Controls Upgrade	Existing controls system is obsolete with parts increasingly difficult to locate. Scope is to upgrade to current version of Emerson Ovation Digital Control System to maintain unit reliability.	\$ 1,151,728	\$ -	\$ -	
22	HF Lee Unit 1 ST Valve	Other Production Plant In Service	Nov-25	HF Lee Unit 1 Steam Turbine Valves Capital Maintenance	HF Lee Unit 1 Steam Turbine Valve components will be replaced based on Original Equipment Manufacturer recommended maintenance interval to maintain unit reliability.	\$ 3,340,980	\$ -	\$ -	
23	Install RO process water system	Other Production Plant In Service	Dec-25	SEC is paying more for demineralized water because only demineralized trailer may be used onsite. Under the current NPDES permit, a RO cannot be used at SEC.	The cost to operate the demin trailers at SEC are around \$360k/year. The cost to operate the RO system is approx \$100k/year.	\$ 1,125,702	\$ -	\$ -	
24	Mayo 1- 1A AR Suction Piping Replacement (REL)	Steam Plant in Service	Dec-23	Replace suction piping at Mayo 1A	Mitigate failure mechanisms in pipe and valve that could cause unit to come offline for emergency repairs.	\$ 307,500	\$ -	\$ -	
25	Mayo 1 Soot blower maintenance	Steam Plant in Service	Dec-23	Replace portions of the soot blowers for Mayo 1	Replace failed and degraded soot blower components to maintain efficient heat transfer to the boiler	\$ 150,000	\$ -	\$ -	
26	Mayo 1 Soot blower maintenance	Steam Plant in Service	Dec-24	Replace portions of the soot blowers for Mayo 1	Replace failed and degraded soot blower components to maintain efficient heat transfer to the boiler	\$ 150,000	\$ -	\$ -	
27	Mayo Absorber Recycle piping lining degradation	Steam Plant in Service	Dec-24	Replace piping lining at Mayo Unit 1	Liner replacement to mitigate piping failure that would result in a 3-day unit forced outage. Mitigate pipe spool replacement costs due to failed liner.	\$ 312,500	\$ -	\$ -	
28	MLH Controls Upgrade & Automation	Hydro Plant in Service	Jul-25	Complete Marshall Hydro Controls Automation	The hydro plant has been upgraded to operate remotely from Hydro Central. This project is to incorporate remaining Programmable Logic Controllers (PLCs), control cabinets and relays that were not included in the original automation upgrade.	\$ 1,659,103	\$ -	\$ -	

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MYRP PROJECTS - SUPPLEMENTAL
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Line No.	MYRP Project Name	FERC Function	Service Date	Project Forecasted In-Service Date	MYRP Project Description & Scope	Reason for the MYRP Project	Total Project Amount (System)			
							Projected In-Service Costs	Projected Annual Net O&M	Projected Installation O&M	
29	MY A/R Pump Performance Degradation	Steam Plant in Service	Dec-23			Absorber pumps operate in an abrasive environment and need periodic rebuilds to maintain pump performance and unit reliability	\$ 281,250	\$ -	\$ -	-
30	MY00 Replace Plant Fire Header	Steam Plant in Service	Nov-25		Replace Mayo FGD absorber pump capital components Replace Mayo Plant Fire Water Header	Underground fire water header is in poor condition and experiences leaks. This project will replace the below ground fire piping system with above ground piping and valves to facilitate inspection and repair.	\$ 1,736,763	\$ -	\$ -	-
31	MY01 Dry Bottom Ash Piping Upgrade	Steam Plant in Service	Sep-24		Replace Mayo Unit 1 Dry Bottom Ash System Piping.	Existing piping and fittings are experiencing wear resulting in frequent patching to keep system in operation. Replacing Nuvalloy I and carbon steel piping with Nuvalloy II straight pipe sections and Duracore II ceramic tile elbows will address the issue.	\$ 1,456,116	\$ -	\$ -	-
32	MY01 SCR catalyst replacement	Steam Plant in Service	May-24		Mayo Unit 1 Selective Catalytic Reduction (SCR) catalyst layer replacement (NOx reduction)	SCR catalyst layer replacements maintain DEQ-required NOx removal rate based on analysis of samples of catalyst layers.	\$ 2,532,550	\$ -	\$ -	-
33	MY01-Replace Sandbed Filters	Steam Plant in Service	Dec-24		Replace Mayo Unit 1 sandbed filters	Replace the three (3) Mayo Plant Sandbed filters. Current sandbed filters are at end of life and are in need of replacement. All make-up and raw water is processed by these filters. Material condition is poor and in need of replacement.	\$ 947,745	\$ -	\$ -	-
34	OPTIM CT CI Unit 4	Other Production Plant In Service	May-26		Scheduled outage to perform a combustion inspection on Unit 4 in 2024.	starts based maintenance per OPTIM	\$ 4,505,881	\$ -	\$ -	-
35	Richmond Unit 7 High Pressure Superheater (HPSH) Lower Header Upgrade	Other Production Plant In Service	May-25		Upgrade Richmond Unit 7 HPSH Lower Header	Existing boiler high pressure superheater (HPSH) lower headers are experiencing tube-to-header leaks due to thermal fatigue. Scope is to replace headers with Grade 91 material.	\$ 1,878,008	\$ -	\$ -	-
36	Richmond Unit 8 High Pressure Superheater (HPSH) Lower Header Upgrade	Other Production Plant In Service	May-25		Upgrade Richmond Unit 8 HPSH Lower Header	Existing boiler high pressure superheater (HPSH) lower headers are experiencing tube-to-header leaks due to thermal fatigue. Scope is to replace headers with Grade 91 material.	\$ 1,869,030	\$ -	\$ -	-
37	ROX FGD AR Pumps-Rebuilds Required	Steam Plant in Service	Dec-23			Absorber pumps operate in an abrasive environment and need periodic rebuilds to maintain pump performance and unit reliability	\$ 312,500	\$ -	\$ -	-
38	ROX4 Degradation of Knifegate Sleeves & Ret. Rings	Steam Plant in Service	Dec-24		Replace Roxboro FGD absorber pump capital components	The knifegate valve sealing surfaces are subject to erosion and need to be replaced to maintain valve function to prevent leak-through	\$ 343,750	\$ -	\$ -	-
39	ROX4 FGD AR Pmp Piping Rubber Lining Failure	Steam Plant in Service	Dec-24		Replace Rox4 absorber knifegate valve capital components Piping lining replacement at Roxboro Unit 4	Liner replacement to mitigate piping failure that would result in a 3-day unit forced outage. Mitigate pipe spool replacement costs due to failed liner.	\$ 937,500	\$ -	\$ -	-
40	Roxboro 01- Generator flexible lead potential for failure	Steam Plant in Service	Dec-25		Replace Roxboro 01 generator lead with new design lead.	General Electric identified a problem with the flexible leads which was communicated to Duke and other customers. Duke plans to replace the flexible leads with leads of updated design to mitigate risk of failure.	\$ 218,750	\$ -	\$ -	-
41	Roxboro 02- Generator flexible lead potential for failure	Steam Plant in Service	Dec-23		Replace Roxboro 02 generator lead with new design lead.	General Electric identified a problem with the flexible leads which was communicated to Duke and other customers. Duke plans to replace the flexible leads with leads of updated design to mitigate risk of failure.	\$ 156,250	\$ -	\$ -	-
42	Roxboro 03- Generator flexible lead potential for failure	Steam Plant in Service	Dec-23		Replace Roxboro 03 generator lead with new design lead.	General Electric identified a problem with the flexible leads which was communicated to Duke and other customers. Duke plans to replace the flexible leads with leads of updated design to mitigate risk of failure.	\$ 156,250	\$ -	\$ -	-
43	Roxboro 04- Generator flexible lead failure potential	Steam Plant in Service	Dec-25		Replace Roxboro 04 generator lead with new design lead.	General Electric identified a problem with the flexible leads which was communicated to Duke and other customers. Duke plans to replace the flexible leads with leads of updated design to mitigate risk of failure.	\$ 218,750	\$ -	\$ -	-
44	Roxboro 1- RX1- SCR Inlet Damper Erosion	Steam Plant in Service	Dec-24		Replace Rox 1 SCR inlet dampers	Two inlet dampers which control air flow into the SCR are being replaced due to inspection findings indicating erosion.	\$ 1,250,000	\$ -	\$ -	-
45	Roxboro 2- RX02 Mill Components at End of Life	Steam Plant in Service	Dec-23		Rox 2 replace degraded components	Components degraded and need replacement	\$ 1,248,750	\$ -	\$ -	-
46	Roxboro 3- ROX 3 ID Booster Fan Motor Reconditioning	Steam Plant in Service	Dec-25		Recondition Rox 3 ID Booster Fan motor based on long run time	Overhaul the fan motor (motor rewind) to improve unit reliability. Motors have run 15-16 years since last overhaul, long lead times on materials require proactive intervention.	\$ 450,000	\$ -	\$ -	-
47	Roxboro 4- ROX 4 FD Fan Motor Reconditioning	Steam Plant in Service	Dec-24		Recondition Rox 4 FD Fan motor based on long run time	Overhaul the fan motor (motor rewind) to improve unit reliability. Motors have run 15-16 years since last overhaul, long lead times on materials require proactive intervention.	\$ 168,750	\$ -	\$ -	-
48	Roxboro 4- ROX 4 ID Booster Fan Motor Reconditioning	Steam Plant in Service	Dec-23		Recondition Rox 4 ID Booster Fan motor based on long run time	Overhaul the fan motor (motor rewind) to improve unit reliability. Motors have run 15-16 years since last overhaul, long lead times on materials require proactive intervention.	\$ 168,750	\$ -	\$ -	-
49	Roxboro 4- ROX 4 ID Fan Motor Reconditioning	Steam Plant in Service	Dec-24		Recondition Rox 4 ID Fan motor based on long run time	Overhaul the fan motor (motor rewind) to improve unit reliability. Motors have run 15-16 years since last overhaul, long lead times on materials require proactive intervention.	\$ 168,750	\$ -	\$ -	-
50	Roxboro Soot blower maintenance	Steam Plant in Service	Dec-23			Replace worn capital sootblower components to maintain boiler reliability and efficiency. Sootblowers remove accumulating ash from internal boiler tubes to prevent plugging of hot gas flow through the boiler	\$ 150,000	\$ -	\$ -	-
51	Roxboro Soot blower maintenance	Steam Plant in Service	Dec-24		2023 Roxboro Sootblower maintenance	Replace worn capital sootblower components to maintain boiler reliability and efficiency. Sootblowers remove accumulating ash from internal boiler tubes to prevent plugging of hot gas flow through the boiler	\$ 150,000	\$ -	\$ -	-
52	Roxboro Soot blower maintenance	Steam Plant in Service	Dec-25		2024 Roxboro Sootblower maintenance	Replace worn capital sootblower components to maintain boiler reliability and efficiency. Sootblowers remove accumulating ash from internal boiler tubes to prevent plugging of hot gas flow through the boiler	\$ 150,000	\$ -	\$ -	-
53	ROX-Com Oxidation Air Piping Failure/Scaling - T	Steam Plant in Service	Dec-24		2025 Roxboro Sootblower maintenance Rox common air piping needs replacement to avoid failure	Air piping material has corroded and will be replaced .	\$ 1,250,000	\$ -	\$ -	-
54	RX01- Replace Oily Waste Separator	Steam Plant in Service	Feb-25		Replace Oily Waste Separator at Roxboro Unit 1	Existing oily waste separator is 40 years old. Scope is to replace with modern equipment to maintain reliability and provide better monitoring capabilities.	\$ 946,057	\$ -	\$ -	-
55	RX01 Replace SCR Catalyst Layer	Steam Plant in Service	Nov-25		Roxboro Unit 1 Selective Catalytic Reduction (SCR) catalyst layer replacement (NOx reduction)	SCR catalyst layer replacements maintain DEQ-required NOx removal rate based on analysis of samples of catalyst layers.	\$ 2,063,911	\$ -	\$ -	-
56	RX02 2A 2B Boiler Feedpump Turbine	Steam Plant in Service	May-24		Roxboro Unit 2A-2B Boiler Feedpump Turbine modifications	Based on GE Technical Information Letter (TIL) 1206, scope is to replace 5th and 6th stage rotating and stationary turbine blades with updated design that will improve performance and reduce risk of failure.	\$ 1,823,206	\$ -	\$ -	-
57	RX02 Degradation of Knifegate Sleeves & Ret. Rings	Steam Plant in Service	Dec-23			The knifegate valve sealing surfaces are subject to erosion and need to be replaced to maintain valve function to prevent leak-through	\$ 343,750	\$ -	\$ -	-
58	RX03 AR Pmp Discharge Valve Rebuild	Steam Plant in Service	Dec-24		Replace Rox2 absorber knifegate valve capital components	The absorber pump discharge valves operate in an abrasive environment and need periodic rebuilds to maintain shutoff capability and unit reliability	\$ 312,500	\$ -	\$ -	-
59	RX03 Replace SCR Mid Catalyst Layer	Steam Plant in Service	Oct-23		Replace Rox3 absorber pump discharge valve capital components Roxboro 3A and 3B SCR top layer catalyst is plugged and has catalyst erosion taking place and replacement needs to be moved up to 2023 based on 2022 inspections.	Maintain unit NOx control and meet MATS rule NOx targets. Avoid unit derates due to excessive pressure drop.	\$ 2,137,035	\$ -	\$ -	-
60	RX04 4A & 4B Boiler Feedpump Turbine	Steam Plant in Service	May-24		Roxboro Unit 4A-4B Boiler Feedpump Turbine modifications	Based on GE Technical Information Letter (TIL) 1206 scope is to replace 5th and 6th stage rotating and stationary turbine blades with updated design that will improve performance and reduce risk of failure.	\$ 2,425,533	\$ -	\$ -	-

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DUKE ENERGY PROGRESS, LLC
MYRP PROJECTS - SUPPLEMENTAL
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Line No.	MYRP Project Name	FERC Function	Service Date	MYRP Project Description & Scope	Reason for the MYRP Project	Total Project Amount (System)			
						Projected In-Service Costs	Projected Annual Net O&M	Projected Installation O&M	Projected
61	RX04 AH Hot End Basket & Seals	Steam Plant in Service	Nov-23	Replace ROX4A and 4B air heater hot end baskets and hot end seals.	Fall 2022 outage inspection found substantial material loss and embrittlement.	\$ 2,498,834	\$ -	\$ -	-
62	RX04 HP Packing Replacement	Steam Plant in Service	Oct-23	Replace the HP turbine packing	OEM has experience with this style of packing falling during service and causing forced outages. TIL-1909 recommends all the packing be replaced at the next major inspection	\$ 1,483,212	\$ -	\$ -	-
63	RX04 IP Turbine Packing Replacement	Steam Plant in Service	Oct-23	Replace the IP turbine packing and the N-gland packing in the LP	OEM has experience with this style of packing falling during service and causing forced outages. TIL-1909 recommends all the packing be replaced at the next major inspection	\$ 1,417,180	\$ -	\$ -	-
64	RX04-Catalyst Replacement	Steam Plant in Service	Dec-24	Roxboro Unit 4 Selective Catalytic Reduction (SCR) catalyst layer replacement (NOx reduction)	SCR catalyst layer replacements maintain DEQ-required NOx removal rate based on analysis of samples of catalyst layers.	\$ 1,989,506	\$ -	\$ -	-
65	Smith CC PB4 Emerson Evergreen	Other Production Plant In Service	Apr-25	Upgrade Smith CC Power Block 4 Emerson Evergreen Controls	Existing controls system is obsolete with parts increasingly difficult to locate. Scope is to upgrade to current version of Emerson Ovation Digital Control System to maintain unit reliability.	\$ 921,816	\$ -	\$ -	-
66	Smith CC PB4 Toshiba to Emerson Controls	Other Production Plant In Service	Jun-25	Upgrade controls from Toshiba to Emerson for Smith CC Power Block 4	Controls hardware/software upgrade will provide current version system that is fully supported by Emerson. Upgrading from Toshiba to Emerson will make the system compatible with other Duke Energy sites, resulting in O&M savings for support.	\$ 1,645,592	\$ -	\$ -	-
67	Smith CC PB5 Emerson Evergreen	Other Production Plant In Service	May-24	Upgrade Smith CC Power Block 5 Emerson Evergreen Controls	Existing controls system is obsolete with parts increasingly difficult to locate. Scope is to upgrade to current version of Emerson Ovation Digital Control System to maintain unit reliability.	\$ 1,095,006	\$ -	\$ -	-
68	Smith CC U10 SCR Dual Catalyst	Other Production Plant In Service	Nov-23	Smith Unit 10 Selective Catalytic Reduction (SCR) catalyst layer replacement (NOx and CO reduction)	SCR catalyst layer replacements maintain DEQ-required NOx removal rate based on analysis of samples of catalyst layers.	\$ 2,085,303	\$ -	\$ -	-
69	Smith CC U9 SCR Dual Catalyst	Other Production Plant In Service	Nov-23	Smith Unit 9 Selective Catalytic Reduction (SCR) catalyst layer replacement (NOx and CO reduction)	SCR catalyst layer replacements maintain DEQ-required NOx removal rate based on analysis of samples of catalyst layers.	\$ 2,085,303	\$ -	\$ -	-
70	Smith CT 4 HGPI Unit	Other Production Plant In Service	Apr-23	Smith Unit 4 Combustion Turbine Hot Gas Path Inspection	Perform a standard hot gas path inspection in accordance with OEM and company engineering standards. GE 7F Gas Turbines require major maintenance at set intervals based on the number of run hours. It is projected that this unit will reach or exceed the number of run hours required to perform this maintenance in 2024.	\$ 8,570,830	\$ -	\$ -	-
71	Smith CT 6 HGPI	Other Production Plant In Service	Dec-23	Smith Unit 6 Combustion Turbine Hot Gas Path Inspection	Perform a standard hot gas path inspection in accordance with OEM and company engineering standards. GE 7F Gas Turbines require major maintenance at set intervals based on the number of starts. It is projected that this unit will reach or exceed the number of starts required to perform this maintenance in 2024.	\$ 12,959,142	\$ -	\$ -	-
72	Smith CT exhaust frame replacement	Other Production Plant In Service	Apr-23	Replace the exhaust frame on Smith Combustion Turbine Unit 4	Existing exhaust frame has cracking issues affecting reliability. Replacement exhaust frame will also accommodate 10MW increase from GE Peaker Upgrades.	\$ 1,340,546	\$ -	\$ -	-
73	Smith CT Unit 10 LTSA HGPI	Other Production Plant In Service	Oct-23	Smith Unit 10 Combustion Turbine Hot Gas Path Inspection under Long Term Service Agreement (LTSA)	Perform a standard hot gas path inspection in accordance with OEM and company engineering standards. Siemens 501F Gas Turbines require major maintenance at set intervals based on run hours. It is projected that this unit will reach run hours required to perform this maintenance in 2023.	\$ 19,662,465	\$ -	\$ -	-
74	Smith CT Unit 7 HGPI and Compressor Replacement	Other Production Plant In Service	Dec-25	Smith Unit 7 Combustion Turbine Hot Gas Path Inspection & Compressor Rotor End-of-Life replacement.	Simple Cycle GE 7FA Heavy Frame Gas Turbines require major maintenance intervals based on starts. Smith Unit 7 is predicted to reach the required starts for a Hot Gas Path Inspection at the end of 2025. Compressor rotor will also be replaced due to rotor wheel dovetail cracking.	\$ 27,724,592	\$ -	\$ -	-
75	Smith CT Unit 8 HGPI and Compressor Replacement	Other Production Plant In Service	Dec-25	Smith Unit 8 Combustion Turbine Hot Gas Path Inspection & Compressor Rotor End-of-Life replacement.	Simple Cycle GE 7FA Heavy Frame Gas Turbines require major maintenance intervals based on run hours. Smith Unit 8 is predicted to reach the required run hours for a Hot Gas Path Inspection at the end of 2025.	\$ 21,212,211	\$ -	\$ -	-
76	Smith CT Unit 9 LTSA HGPI	Other Production Plant In Service	Oct-23	Smith Unit 9 Combustion Turbine Hot Gas Path Inspection under Long Term Service Agreement (LTSA)	Perform a standard hot gas path inspection in accordance with OEM and company engineering standards. Siemens 501F Gas Turbines require major maintenance at set intervals based on run hours. It is projected that this unit will reach run hours required to perform this maintenance in 2023.	\$ 19,672,825	\$ -	\$ -	-
77	Smith U10 Rotor Replacement LTSA Adder	Other Production Plant In Service	Nov-23	Smith Unit 10 Rotor Replacement	Based on industry failures of the air separator in similar units, scope is to install a new rotor with an upgraded air separator.	\$ 4,717,874	\$ -	\$ -	-
78	Smith U9 Rotor Replacement LTSA Adder	Other Production Plant In Service	Nov-23	Smith Unit 9 Rotor Replacement	Based on industry failures of the air separator in similar units, scope is to install a new rotor with an upgraded air separator.	\$ 4,693,662	\$ -	\$ -	-
79	Smith Unit 6 Exhaust Frame Replacement	Other Production Plant In Service	Dec-23	Replace the exhaust frame on Smith Combustion Turbine Unit 6	Existing exhaust frame has cracking issues affecting reliability. Replacement exhaust frame will also accommodate 10MW increase from GE Peaker Upgrades.	\$ 1,396,287	\$ -	\$ -	-
80	SNCC Lake Makeup System	Other Production Plant In Service	May-24	Sutton Combined Cycle Lake Makeup Pump Controls	Existing pump controls are obsolete with reliability issues. Scope is to remove existing lake makeup pump control system and install new motor control center, transformer, and enclosure.	\$ 1,352,600	\$ -	\$ -	-
81	SNS1 Emerson ST and AVR Controls	Other Production Plant In Service	May-24	Upgrading and updating of the existing Toshiba Tosmap-D5/ev controls system. All of the existing servers and HMI's will be replaced, as well as all of the operating software to the most current revisions.	Project is needed to keep the system up-to-date, functional, and reliable. Also, the current system end of support is scheduled for 2021.	\$ 1,378,883	\$ -	\$ -	-
82	Sutton CT Unit 01A LTSA HGPI Unit 01A	Other Production Plant In Service	May-26	Sutton Unit 1A Combustion Turbine Hot Gas Path Inspection under Long Term Service Agreement (LTSA)	Perform a standard hot gas path inspection in accordance with OEM and company engineering standards. Siemens 501F Gas Turbines require major maintenance at set intervals based on run hours. It is projected that this unit will reach run hours required to perform this maintenance in 2026.	\$ 16,951,469	\$ -	\$ -	-
83	Sutton CT Unit 01B LTSA HGPI	Other Production Plant In Service	May-26	Sutton Unit 1B Combustion Turbine Hot Gas Path Inspection under Long Term Service Agreement (LTSA)	Perform a standard hot gas path inspection in accordance with OEM and company engineering standards. Siemens 501F Gas Turbines require major maintenance at set intervals based on run hours. It is projected that this unit will reach run hours required to perform this maintenance in 2026.	\$ 16,951,499	\$ -	\$ -	-
84	TL U1 Life Extension	Hydro Plant in Service	Oct-24	Tillery Unit 1 Life Extension Project	Existing turbine runner is 90 years old and needs to be upgraded. New design turbine rotor will increase capacity by 2.1 MW and meet FERC required Dissolved Oxygen limits. Currently, the FERC Dissolved Oxygen limits are being met with an oxygen injection system at an approximate O&M cost of \$350K per year. This system will be eliminated with the new design rotor.	\$ 18,004,096	\$ (299,625)	\$ -	-
85	TL U1-4 Replace Controls	Hydro Plant in Service	Aug-25	Replace Tillery GE 9070 Controls on Units 1-4	Existing GE 9070 Controls hardware is obsolete and no longer manufactured by GE. Replace with modern GE control system to maintain reliability.	\$ 3,155,828	\$ (99,875)	\$ -	-
86	TL U3 Replace Turbine Runner	Hydro Plant in Service	Dec-25	Replace Tillery Unit 3 Turbine Runner	Existing turbine runner is 90 years old and needs to be upgraded. New design turbine rotor will increase capacity by 8.7 MW and meet FERC required Dissolved Oxygen limits. Currently, the FERC Dissolved Oxygen limits are being met with an oxygen injection system at an approximate O&M cost of \$300K per year. This system will be eliminated with the new design rotor.	\$ 18,654,492	\$ -	\$ -	-
87	Wayne CT Unit 11HGPI and Combustion Inspection	Other Production Plant In Service	Jun-24	Wayne County Unit 11 Combustion Turbine Hot Gas Path Inspection (HGPI) and Combustion Inspection	Perform a standard hot gas path inspection in accordance with OEM and company engineering standards. GE 7FA Simple Cycle Heavy Frame Gas Turbines require major maintenance at set intervals based on the number of starts. It is projected that this unit will reach or exceed the number of starts required to perform this maintenance in 2024.	\$ 18,717,529	\$ -	\$ -	-
88	WT Powerhouse Roof Replacement	Hydro Plant in Service	Dec-23	Walters Hydro Powerhouse Roof Replacement	Roof leaks currently must be diverted off critical generator equipment. Replacement will ensure no rain ends up on critical equipment as well as office spaces.	\$ 1,008,994	\$ -	\$ -	-

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					Total Project Amount (System)			
Line		Project Forecasted In-			Projected In-	Projected Annual Net	Projected	
No.	MYRP Project Name	FERC Function	Service Date	MYRP Project Description & Scope	Service Costs	O&M	Installation O&M	
89	WT Replace Intake Derrick	Hydro Plant in Service	Dec-25	Replace Intake Derrick Crane at Walters hydroelectric facility	Existing intake derrick crane has reached the end of its service life (worn gears) and needs to be replaced to maintain unit reliability.	\$ 2,642,034	\$ -	\$ -
90	WT Upgrade Intake Hoist System	Hydro Plant in Service	Dec-25	Upgrade Intake Hoist System at Walters hydroelectric facility	Current intake gate is cumbersome to operate manually and in an emergency it could pose a safety issue when lowering the head gate. Upgrades will address by allow backup manual lowering capability.	\$ 3,142,433	\$ -	\$ -
91	WT Water & Fire Protection Tanks	Hydro Plant in Service	Oct-23	Walters Hydro Potable Water & Fire Protection Tanks	Current holding tanks and associated piping need attention due to leakage. Project will install complete tank liners with addition of manways, and replace potable water feed line, potable water supply line, fire water supply and feed lines.	\$ 2,640,138	\$ -	\$ -
TOTALS						\$ 478,540,135	\$ (399,500)	\$ -

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Line No.	MYRP Project Name	FERC Function	Filed Oct 2022 - Total Project Amount (System)				Filed Feb 2023 - Total Project Amount (System)				Supplemental Update Criteria
			Project Forecasted In-Service Date	Projected In-Service Costs	Projected Annual Net O&M	Projected Installation O&M	Project Forecasted In-Service Date	Projected In-Service Costs	Projected Annual Net O&M	Projected Installation O&M	
1	ACC Exhaust Gas Temperature Cooling	Other Production Plant In Service	Oct-25	\$ 5,209,488	\$ -	\$ -	Oct-25	\$ 5,231,716	\$ -	\$ -	Overall Cost Estimate Change
2	ACC ST6 Generator Stator Rewind	Other Production Plant In Service	Apr-24	\$ 2,404,137	\$ -	\$ -	Apr-24	\$ 2,466,917	\$ -	\$ -	Overall Cost Estimate Change
3	ACC ST8 Generator Stator Rewind	Other Production Plant In Service	Nov-24	\$ 2,512,568	\$ -	\$ -	Nov-24	\$ 2,616,872	\$ -	\$ -	Overall Cost Estimate Change
4	AGP Peaker Upgrade	Other Production Plant In Service	Nov-24	\$ 5,872,616	\$ -	\$ -	Dec-23	\$ 3,808,786	\$ -	\$ -	Other Significant Developments
5	AGP Peaker Upgrades	Other Production Plant In Service	Apr-24	\$ 5,108,235	\$ -	\$ -	Apr-23	\$ 2,996,944	\$ -	\$ -	Other Significant Developments
6	Asheville CT HGPI Unit 5	Other Production Plant In Service	May-24	\$ 18,708,012	\$ -	\$ -	May-24	\$ 20,291,263	\$ -	\$ -	Overall Cost Estimate Change
7	Asheville CT HGPI Unit 7	Other Production Plant In Service	Oct-24	\$ 18,697,260	\$ -	\$ -	Oct-24	\$ 20,230,926	\$ -	\$ -	Overall Cost Estimate Change
8	Asheville ST Valves Unit 6	Other Production Plant In Service	Apr-24	\$ 2,485,545	\$ -	\$ -	Apr-24	\$ 2,580,421	\$ -	\$ -	Overall Cost Estimate Change
9	Asheville ST Valves Unit 8	Other Production Plant In Service	Oct-24	\$ 2,121,927	\$ -	\$ -	Oct-24	\$ 2,533,645	\$ -	\$ -	Overall Cost Estimate Change
10	Asheville Unit 04 Generator Field Rewind	Other Production Plant In Service	Nov-24	\$ 2,184,807	\$ -	\$ -	Nov-24	\$ 2,263,203	\$ -	\$ -	Overall Cost Estimate Change
11	BLH - Fish Passage	Hydro Plant in Service	Oct-23	\$ 104,765,466	\$ -	\$ -	Oct-23	\$ 104,765,466	\$ -	\$ -	Project > \$10M
12	BLH U4 Replace Turbine Runner	Hydro Plant in Service	Dec-25	\$ 10,357,941	\$ -	\$ -	Dec-25	\$ 10,576,026	\$ -	\$ -	Project > \$10M
13	Combined Cycle Unit Flexibility Upgrade (Asheville)	Other Production Plant In Service	Nov-24	\$ 925,000	\$ -	\$ -	Nov-24	\$ 925,000	\$ -	\$ -	No Change
14	Combined Cycle Unit Flexibility Upgrade (Smith)	Other Production Plant In Service	Nov-24	\$ 925,000	\$ -	\$ -	Nov-24	\$ 925,000	\$ -	\$ -	No Change
15	Combined Cycle Unit Flexibility Upgrade (Sutton)	Other Production Plant In Service	Sep-26	\$ 950,000	\$ -	\$ -	Sep-26	\$ 950,000	\$ -	\$ -	No Change
16	Darlington Unit 12 Combustion Inspection	Other Production Plant In Service	Mar-26	\$ 3,283,198	\$ -	\$ -	Mar-26	\$ 3,535,426	\$ -	\$ -	Overall Cost Estimate Change
17	FERC BLH Raise Dam Crest	Hydro Plant in Service	Dec-24	\$ 1,076,529	\$ -	\$ -	Dec-24	\$ 1,086,516	\$ -	\$ -	Overall Cost Estimate Change
18	HF Lee 01A LTSA HGPI	Other Production Plant In Service	Oct-25	\$ 2,645,134	\$ -	\$ -	Oct-25	\$ 2,693,018	\$ -	\$ -	Overall Cost Estimate Change
19	HF Lee 01B LTSA HGPI	Other Production Plant In Service	Dec-25	\$ 2,630,117	\$ -	\$ -	Dec-25	\$ 2,668,253	\$ -	\$ -	Overall Cost Estimate Change
20	HF Lee 01C LTSA HGPI	Other Production Plant In Service	Oct-25	\$ 2,629,330	\$ -	\$ -	Oct-25	\$ 2,666,959	\$ -	\$ -	Overall Cost Estimate Change
21	HF Lee Emerson Ovation BOP Evergreen	Other Production Plant In Service	Jun-24	\$ 1,143,997	\$ -	\$ -	Jun-24	\$ 1,151,728	\$ -	\$ -	Overall Cost Estimate Change
22	HF Lee Unit 1 ST Valve	Other Production Plant In Service	Nov-25	\$ 3,222,795	\$ -	\$ -	Nov-25	\$ 3,340,980	\$ -	\$ -	Overall Cost Estimate Change
23	Install RO process water system	Other Production Plant In Service		\$ -	\$ -	\$ -	Dec-25	\$ 1,125,702	\$ -	\$ -	Project Added
24	Mayo 1- 1A AR Suction Piping Replacement (REL)	Steam Plant in Service	Dec-23	\$ 307,500	\$ -	\$ -	Dec-23	\$ 307,500	\$ -	\$ -	No Change
25	Mayo 1 Soot blower maintenance	Steam Plant in Service	Dec-24	\$ 150,000	\$ -	\$ -	Dec-24	\$ 150,000	\$ -	\$ -	No Change
26	Mayo 1 Soot blower maintenance	Steam Plant in Service	Dec-23	\$ 150,000	\$ -	\$ -	Dec-23	\$ 150,000	\$ -	\$ -	No Change
27	Mayo Absorber Recycle piping lining degradation	Steam Plant in Service	Dec-24	\$ 312,500	\$ -	\$ -	Dec-24	\$ 312,500	\$ -	\$ -	No Change
28	MLH Controls Upgrade & Automation	Hydro Plant in Service	Jul-25	\$ 2,949,119	\$ -	\$ -	Jul-25	\$ 1,659,103	\$ -	\$ -	Overall Cost Estimate Change
29	MY A/R Pump Performance Degradation	Steam Plant in Service		\$ -	\$ -	\$ -	Dec-23	\$ 281,250	\$ -	\$ -	Project Added
30	MY00 Replace Plant Fire Header	Steam Plant in Service	Nov-25	\$ 2,630,365	\$ -	\$ -	Nov-25	\$ 1,736,763	\$ -	\$ -	Overall Cost Estimate Change
31	MY01 Dry Bottom Ash Piping Upgrade	Steam Plant in Service	Sep-24	\$ 1,419,606	\$ -	\$ -	Sep-24	\$ 1,456,116	\$ -	\$ -	Overall Cost Estimate Change
32	MY01 SCR catalyst replacement	Steam Plant in Service	May-24	\$ 2,513,214	\$ -	\$ -	May-24	\$ 2,532,550	\$ -	\$ -	Overall Cost Estimate Change
33	MY01-Replace Sandbed Filters	Steam Plant in Service	Dec-24	\$ 942,079	\$ -	\$ -	Dec-24	\$ 947,745	\$ -	\$ -	Overall Cost Estimate Change
34	MY01-Turbine LP Blade Replacement	Steam Plant in Service	May-24	\$ 3,628,521	\$ -	\$ -		\$ -	\$ -	\$ -	Project Canceled/Removed
35	OPTIM CT Ci Unit 4	Other Production Plant In Service		\$ -	\$ -	\$ -	May-26	\$ 4,505,881	\$ -	\$ -	Project Added

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Line No.	MYRP Project Name	FERC Function	Filed Oct 2022 - Total Project Amount (System)				Filed Feb 2023 - Total Project Amount (System)				Supplemental Update Criteria
			Project Forecasted In-Service Date	Projected In-Service Costs	Projected Annual Net O&M	Projected Installation O&M	Project Forecasted In-Service Date	Projected In-Service Costs	Projected Annual Net O&M	Projected Installation O&M	
36	Richmond Unit 7 High Pressure Superheater (HPSH) Lower Header Upgrade	Other Production Plant In Service	May-25	\$ 1,935,195	\$ -	\$ -	May-25	\$ 1,878,008	\$ -	\$ -	Overall Cost Estimate Change
37	Richmond Unit 8 High Pressure Superheater (HPSH) Lower Header Upgrade	Other Production Plant In Service	May-25	\$ 1,925,429	\$ -	\$ -	May-25	\$ 1,869,030	\$ -	\$ -	Overall Cost Estimate Change
38	ROX FGD AR Pumps-Rebuilds Required	Steam Plant in Service		\$ -	\$ -	\$ -	Dec-23	\$ 312,500	\$ -	\$ -	Project Added
39	ROX4 Degradation of Knifegate Sleeves & Ret. Rings	Steam Plant in Service		\$ -	\$ -	\$ -	Dec-24	\$ 343,750	\$ -	\$ -	Project Added
40	ROX4 FGD AR Pmp Piping Rubber Lining Failure	Steam Plant in Service	Dec-24	\$ 937,500	\$ -	\$ -	Dec-24	\$ 937,500	\$ -	\$ -	No Change
41	Roxboro 01- Generator flexible lead potential for failure	Steam Plant in Service	Dec-25	\$ 218,750	\$ -	\$ -	Dec-25	\$ 218,750	\$ -	\$ -	No Change
42	Roxboro 02- Generator flexible lead potential for failure	Steam Plant in Service	Dec-23	\$ 156,250	\$ -	\$ -	Dec-23	\$ 156,250	\$ -	\$ -	No Change
43	Roxboro 03- Generator flexible lead potential for failure	Steam Plant in Service	Dec-23	\$ 156,250	\$ -	\$ -	Dec-23	\$ 156,250	\$ -	\$ -	No Change
44	Roxboro 04- Generator flexible lead failure potential	Steam Plant in Service	Dec-25	\$ 218,750	\$ -	\$ -	Dec-25	\$ 218,750	\$ -	\$ -	No Change
45	Roxboro 1- RX1- SCR Inlet Damper Erosion	Steam Plant in Service	Dec-24	\$ 1,250,000	\$ -	\$ -	Dec-24	\$ 1,250,000	\$ -	\$ -	No Change
46	Roxboro 2- ROX2 Mill Components at End of Life	Steam Plant in Service	Dec-23	\$ 1,248,750	\$ -	\$ -	Dec-23	\$ 1,248,750	\$ -	\$ -	No Change
47	Roxboro 3- ROX 3 ID Booster Fan Motor Reconditioning	Steam Plant in Service	Dec-25	\$ 450,000	\$ -	\$ -	Dec-25	\$ 450,000	\$ -	\$ -	No Change
48	Roxboro 4- ROX 4 FD Fan Motor Reconditioning	Steam Plant in Service	Dec-24	\$ 168,750	\$ -	\$ -	Dec-24	\$ 168,750	\$ -	\$ -	No Change
49	Roxboro 4- ROX 4 ID Booster Fan Motor Reconditioning	Steam Plant in Service	Dec-23	\$ 168,750	\$ -	\$ -	Dec-23	\$ 168,750	\$ -	\$ -	No Change
50	Roxboro 4- ROX 4 ID Fan Motor Reconditioning	Steam Plant in Service	Dec-24	\$ 168,750	\$ -	\$ -	Dec-24	\$ 168,750	\$ -	\$ -	No Change
51	Roxboro Soot blower maintenance	Steam Plant in Service		\$ -	\$ -	\$ -	Dec-23	\$ 150,000	\$ -	\$ -	Project Added
52	Roxboro Soot blower maintenance	Steam Plant in Service		\$ -	\$ -	\$ -	Dec-25	\$ 150,000	\$ -	\$ -	Project Added
53	Roxboro Soot blower maintenance	Steam Plant in Service		\$ -	\$ -	\$ -	Dec-24	\$ 150,000	\$ -	\$ -	Project Added
54	ROX-Com Oxidation Air Piping Failure/Scaling - T	Steam Plant in Service	Dec-24	\$ 1,250,000	\$ -	\$ -	Dec-24	\$ 1,250,000	\$ -	\$ -	No Change
55	RX01- Replace Oily Waste Separator	Steam Plant in Service	Feb-25	\$ 945,412	\$ -	\$ -	Feb-25	\$ 946,057	\$ -	\$ -	Overall Cost Estimate Change
56	RX01 Replace SCR Catalyst Layer	Steam Plant in Service	Nov-25	\$ 1,918,341	\$ -	\$ -	Nov-25	\$ 2,063,911	\$ -	\$ -	Overall Cost Estimate Change
57	RX02 2A 2B Boiler Feedpump Turbine	Steam Plant in Service	May-24	\$ 1,832,875	\$ -	\$ -	May-24	\$ 1,823,206	\$ -	\$ -	Overall Cost Estimate Change
58	RX02 Degradation of Knifegate Sleeves & Ret. Rings	Steam Plant in Service		\$ -	\$ -	\$ -	Dec-23	\$ 343,750	\$ -	\$ -	Project Added
59	RX03 AR Pmp Discharge Valve Rebuild	Steam Plant in Service		\$ -	\$ -	\$ -	Dec-24	\$ 312,500	\$ -	\$ -	Project Added
60	RX03 CT Right Angle Gearbox Phase I	Steam Plant in Service	Dec-25	\$ 1,711,658	\$ -	\$ -		\$ -	\$ -	\$ -	Project Canceled/Removed
61	RX03 Replace SCR Mid Catalyst Layer	Steam Plant in Service		\$ -	\$ -	\$ -	Oct-23	\$ 2,137,035	\$ -	\$ -	Project Added
62	RX04 4A & 4B Boiler Feedpump Turbine	Steam Plant in Service	May-24	\$ 2,423,431	\$ -	\$ -	May-24	\$ 2,425,533	\$ -	\$ -	Overall Cost Estimate Change
63	RX04 AH Hot End Basket & Seals	Steam Plant in Service		\$ -	\$ -	\$ -	Nov-23	\$ 2,498,834	\$ -	\$ -	Project Added
64	RX04 CT Right Angle Gearbox Phase I	Steam Plant in Service	Dec-25	\$ 1,711,658	\$ -	\$ -		\$ -	\$ -	\$ -	Project Canceled/Removed
65	RX04 HP Packing Replacement	Steam Plant in Service		\$ -	\$ -	\$ -	Oct-23	\$ 1,483,212	\$ -	\$ -	Project Added
66	RX04 IP Turbine Packing Replacement	Steam Plant in Service		\$ -	\$ -	\$ -	Oct-23	\$ 1,417,180	\$ -	\$ -	Project Added
67	RX04 LP rotor L-Q blade replacement	Steam Plant in Service	May-24	\$ 3,585,387	\$ -	\$ -		\$ -	\$ -	\$ -	Project Canceled/Removed
68	RX04-Catalyst Replacement	Steam Plant in Service	Dec-24	\$ 1,987,922	\$ -	\$ -	Dec-24	\$ 1,989,506	\$ -	\$ -	Overall Cost Estimate Change
69	Smith CC PB4 Emerson Evergreen	Other Production Plant In Service	Apr-25	\$ 914,989	\$ -	\$ -	Apr-25	\$ 921,816	\$ -	\$ -	Overall Cost Estimate Change
70	Smith CC PB4 Toshiba to Emerson Controls	Other Production Plant In Service	Jun-25	\$ 1,634,850	\$ -	\$ -	Jun-25	\$ 1,645,592	\$ -	\$ -	Overall Cost Estimate Change
71	Smith CC PB5 Emerson Evergreen	Other Production Plant In Service	May-24	\$ 1,086,424	\$ -	\$ -	May-24	\$ 1,095,006	\$ -	\$ -	Overall Cost Estimate Change
72	Smith CC U10 SCR Dual Catalyst	Other Production Plant In Service	Nov-23	\$ 2,073,239	\$ -	\$ -	Nov-23	\$ 2,085,303	\$ -	\$ -	Overall Cost Estimate Change
73	Smith CC U9 SCR Dual Catalyst	Other Production Plant In Service	Nov-23	\$ 2,070,456	\$ -	\$ -	Nov-23	\$ 2,085,303	\$ -	\$ -	Overall Cost Estimate Change
74	Smith CT 4 HGPI Unit	Other Production Plant In Service	Apr-24	\$ 10,851,222	\$ -	\$ -	Apr-23	\$ 8,570,830	\$ -	\$ -	Project > \$10M
75	Smith CT 6 HGPI	Other Production Plant In Service	Oct-24	\$ 10,397,662	\$ -	\$ -	Dec-23	\$ 12,959,142	\$ -	\$ -	Project > \$10M

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DUKE ENERGY PROGRESS, LLC
MYRP PROJECTS - ORIGINAL FILING VS SUPPLEMENTAL FILING COMPARISON
DOCKET NO. E-2 Sub 1300

Line No.	MYRP Project Name	FERC Function	Filed Oct 2022 - Total Project Amount (System)				Filed Feb 2023 - Total Project Amount (System)				Supplemental Update Criteria
			Project Forecasted In-Service Date	Projected In-Service Costs	Projected Annual Net O&M	Projected Installation O&M	Project Forecasted In-Service Date	Projected In-Service Costs	Projected Annual Net O&M	Projected Installation O&M	
76	Smith CT exhaust frame replacement	Other Production Plant In Service	Apr-24	\$ 1,369,534	\$ -	\$ -	Apr-23	\$ 1,340,546	\$ -	\$ -	Other Significant Developments
77	Smith CT Unit 10 LTSA HGPI	Other Production Plant In Service	Oct-23	\$ 17,564,146	\$ -	\$ -	Oct-23	\$ 19,662,465	\$ -	\$ -	Project > \$10M
78	Smith CT Unit 7 HGPI and Compressor Replacement	Other Production Plant In Service	Dec-25	\$ 26,022,465	\$ -	\$ -	Dec-25	\$ 27,724,592	\$ -	\$ -	Project > \$10M
79	Smith CT Unit 8 HGPI and Compressor Replacement	Other Production Plant In Service	Dec-25	\$ 19,589,774	\$ -	\$ -	Dec-25	\$ 21,212,211	\$ -	\$ -	Project > \$10M
80	Smith CT Unit 9 LTSA HGPI	Other Production Plant In Service	Oct-23	\$ 17,494,604	\$ -	\$ -	Oct-23	\$ 19,672,825	\$ -	\$ -	Project > \$10M
81	Smith U10 Rotor Replacement LTSA Adder	Other Production Plant In Service	Nov-23	\$ 5,940,671	\$ -	\$ -	Nov-23	\$ 4,717,874	\$ -	\$ -	Overall Cost Estimate Change
82	Smith U9 Rotor Replacement LTSA Adder	Other Production Plant In Service	Nov-23	\$ 5,940,671	\$ -	\$ -	Nov-23	\$ 4,693,662	\$ -	\$ -	Overall Cost Estimate Change
83	Smith Unit 6 Exhaust Frame Replacement	Other Production Plant In Service	Nov-24	\$ 1,245,435	\$ -	\$ -	Dec-23	\$ 1,396,287	\$ -	\$ -	Other Significant Developments
84	SNCC Lake Makeup System	Other Production Plant In Service	May-24	\$ 1,174,046	\$ -	\$ -	May-24	\$ 1,352,600	\$ -	\$ -	Overall Cost Estimate Change
85	SNS1 Emerson ST and AVR Controls	Other Production Plant In Service		\$ -	\$ -	\$ -	May-24	\$ 1,378,883	\$ -	\$ -	Project Added
86	Sutton CT Unit 01A LTSA HGPI Unit 01A	Other Production Plant In Service	May-26	\$ 16,937,409	\$ -	\$ -	May-26	\$ 16,951,469	\$ -	\$ -	Project > \$10M
87	Sutton CT Unit 01B LTSA HGPI	Other Production Plant In Service	May-26	\$ 16,937,439	\$ -	\$ -	May-26	\$ 16,951,499	\$ -	\$ -	Project > \$10M
88	TL U1 Life Extension	Hydro Plant in Service	Sep-25	\$ 16,251,263	\$ -	\$ -	Oct-24	\$ 18,004,096	\$ (299,625)	\$ -	Project > \$10M
89	TL U1-4 Replace Controls	Hydro Plant in Service	Aug-25	\$ 1,758,392	\$ -	\$ -	Aug-25	\$ 3,155,828	\$ (99,875)	\$ -	Overall Cost Estimate Change
90	TL U3 Replace Turbine Runner	Hydro Plant in Service	Aug-24	\$ 17,651,473	\$ -	\$ -	Dec-25	\$ 18,654,492	\$ -	\$ -	Project > \$10M
91	Wayne CT Unit 11HGPI and Combustion Inspection	Other Production Plant In Service	Jun-24	\$ 18,068,486	\$ -	\$ -	Jun-24	\$ 18,717,529	\$ -	\$ -	Project > \$10M
92	WT Powerhouse Roof Replacement	Hydro Plant in Service	Dec-23	\$ 966,127	\$ -	\$ -	Dec-23	\$ 1,008,994	\$ -	\$ -	Overall Cost Estimate Change
93	WT Replace Intake Derrick	Hydro Plant in Service	Dec-25	\$ 2,516,165	\$ -	\$ -	Dec-25	\$ 2,642,034	\$ -	\$ -	Overall Cost Estimate Change
94	WT Upgrade Intake Hoist System	Hydro Plant in Service	Dec-25	\$ 2,964,976	\$ -	\$ -	Dec-25	\$ 3,142,433	\$ -	\$ -	Overall Cost Estimate Change
95	WT Water & Fire Protection Tanks	Hydro Plant in Service	Oct-23	\$ 2,818,958	\$ -	\$ -	Oct-23	\$ 2,640,138	\$ -	\$ -	Overall Cost Estimate Change
TOTALS				\$ 463,472,687	\$ -	\$ -		\$ 478,540,135	\$ (399,500)	\$ -	

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