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August 2, 2021

VIA ELECTRONIC FILING

Ms. A. Shonta Dunston
Interim Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

RE: Duke Energy Progress, LLC's DSDR-to-CVR Conversion Filing
Docket No. E-2, Sub 926 and E-100, Sub 165

Dear Ms. Dunston:

Pursuant to the *Order Accepting Stipulations, Granting Partial Rate Increase, and Requiring Customer Notice*, issued April 16, 2021 in Docket Nos. E-2, Sub 1219 and E-2, Sub 1193 (the "Order"), I enclose for filing in connection with this matter Duke Energy Progress, LLC's ("DEP" or the "Company") filing pertaining to the Company's proposed conversion of the Distribution System Demand Response ("DSDR") program to the Conservation Voltage Reduction ("CVR") program. The Order required that DEP determine the amount of peak reduction capacity that will be lost due to the conversion and propose a method of replacing the lost capacity; file a revised DSDR-to-CVR conversion cost-benefit analysis that incorporates the cost of replacing any lost peak reduction capacity; and file an updated report that estimates CVR's anticipated capital and O&M costs, peak reduction, and energy savings for the next 10 years.

If you have any questions, please do not hesitate to contact me. Thank you for your attention to this matter.

Sincerely,

Jack E. Jirak

Enclosures

cc: Parties of Record

Duke Energy Progress, LLC
DSDR-to-CVR Program Analysis
Docket No. E-100, Sub 165
Docket No. E-2, Sub 926
August 2021

Introduction

The North Carolina Utilities Commission's (the "Commission") April 26, 2021 *Order Accepting Stipulations, Granting Partial Rate Increase and Requiring Customer Notice*, in Docket No. E-2, Sub 1219 (the "Order"), requires Duke Energy Progress, LLC ("DEP" or the "Company") to provide the following information by August 1, 2021 regarding its proposed Distribution System Demand Response ("DSDR") conversion to Conservation Voltage Reduction ("CVR") project:

1. Determine the amount of peak reduction capacity that will be lost due to the conversion and propose a method of replacing that lost capacity in Docket No. E-100, Sub 165 (IRP docket);
2. File in the IRP docket and Docket No. E-2, Sub 926 (Sub 926) a revised DSDR-to-CVR conversion cost-benefit analysis that incorporates the cost of replacing any lost peak reduction capacity; and
3. File an updated report in the IRP docket and Sub 926 that estimates CVR's anticipated capital and O&M costs, peak reduction, and energy savings for the next 10 years.

The following DSDR-to-CVR conversion project information is being provided in accordance with the requirements of the Order.

Project Overview and Peak Reduction Capacity

This analysis provides an update to the original analysis for the DSDR-to-CVR project provided in the 2020 IRP and the 2019 DEP general rate case filings[1]. This project will move DEP from a predominant DSDR (peak shaving) operational strategy to a Conservation Voltage Reduction (CVR) operational strategy. The DSDR and CVR modes of operation would be implemented by software within a centralized Distribution Management System (DMS). CVR would be a DMS function that would support voltage reduction and energy conservation on a year-round basis, for approximately 90% of the hours in the year, as opposed to peak shaving conditions. The original analysis assumed that if the DMS system was operating in CVR mode, transitioning to DSDR mode when load has already been reduced would not provide the level of DSDR peak shaving benefit realized today.

Future enhancements to the DMS are needed to ensure the operability of a CVR mode. Once the DMS can support a CVR mode, this would allow cost effective decision-making for different modes of operation based on system conditions. Therefore, coming out of conservation voltage reduction for forecasted peak demand events would allow the system to return to a DSDR mode

[1] Docket No. E-2, Sub 1219

that enables peak shaving capabilities currently in place today. With further enhancements, the flexibility of the system should provide both capacity and energy saving capabilities while simultaneously preserving options for efficient management of the grid.

Based on updated assumptions, the Company does not expect that changing the predominant operational strategy in DEP from DSDR to CVR will reduce peak shaving capability available today under DSDR. The next section provides an updated cost-benefit-analysis that reflects no assumed reduction in DSDR peak shaving capability.

Cost-Benefit Analysis

The updated DSDR-to-CVR cost benefit analysis is included in Appendix A. The updated analysis reflects no additional costs for replacing lost peak reduction capacity, since there is no assumed reduction in DSDR peak shaving capability. Additionally, the updated analysis aligned its assumptions with the 2020 IRP's avoided costs decline compared to the 2018 IRP. These drivers have led to a reduction in the benefit-cost ratio for this project as shown Table 1 below. Importantly, the updated analysis continues to show this program is beneficial to customers.

Table 1: Benefit-to-Cost results

Original CBA from 2018 IRP	Updated CBA from 2020 IRP
31.5	23.9

Ongoing Program Costs

Table 2 below provides the 10-year forecast for the incremental capital and O&M costs to prepare the system to move to CVR as the predominant operational strategy. Once this four-year transition is complete we do not anticipate incremental cost in subsequent years beyond those already required to operate and maintain DSDR which are currently reported in the Distribution System Demand Response Program Implementation Status Report that is filed in Docket No. E-2, Sub 926.

Table 2: CVR Capital and O&M

($ in 000's)

Year:	2021	2022	2023	2024	2025	2026	2027	2028	2029	2029
Capital	$ 2,233	$ 2,287	$ 2,335	$ 2,387	0	0	0	0	0	0
O&M	$ 20	$ 20	$ 21	$ 21	0	0	0	0	0	0

Duke Energy Progress, LLC
DSDR-to-CVR Program Analysis
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Table 3: Load Reduction (MW) and Energy Reduction (MWH)

DEP (NC & SC) DSDR to CVR (Conservation Voltage Reduction) Conversion				
MW & MWH Reduction Forecast[1]				
			CVR[2]	**CVR[2]**
	Conservation Voltage Reduction [CVR] Deployment (%)		Demand Load Reduction **(MW)**	Energy Reduction **(MWH)**
2021	0%	*CVR Not Applicable*	Not Applicable	Not Applicable
2022	0%	*CVR Not Applicable*	Not Applicable	Not Applicable
2023	10%	*Ramp up CVR[3]*	9	38,777
2024	20%	*Ramp up CVR[3]*	17	78,252
2025	100%		88	394,782
2026	100%		89	398,335
2027	100%		90	401,920
2028	100%		91	405,537
2029	100%		91	409,187
2030	100%		92	412,870
2031	100%		93	416,586
2032	100%		94	420,335
2033	100%		95	424,118
2034	100%		96	427,935

[1] *Line Loss Savings are excluded. Line loss savings represent the reduction of distribution system electrical losses due to DSDR Feeder Conditioning improvements.*
[2] *CVR is anticipated to run 90% of the hours in the year*
[3] *Estimated project timeline subject to change as the project progresses.*

APPENDIX A

Duke Energy Progress (DEP) N.C. & S.C. DSDR to CVR Conversion CBA

This evaluation is the incremental cost and benefits to convert DSDR to CVR in DEP NC & SC.

( ) = savings

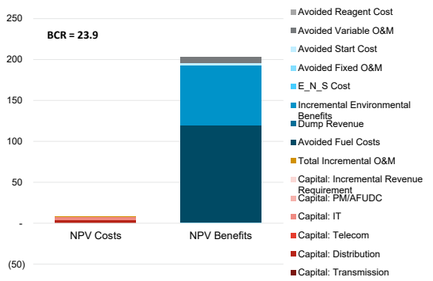
Hypothetical Years (for reference only)

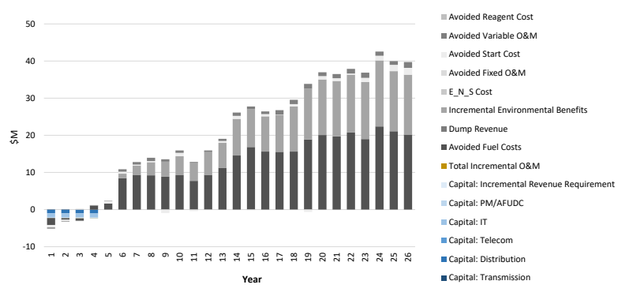
	Units	Thousands of Dollars NPV (calculated)	2020 0	2021 1	2022 2	2023 3	2024 4	2025 5	2026 6	2027 7	2028 8	2029 9	2030 10	2031 11	2032 12	2033 13	2034 14	2035 15	2036 16	2037 17	2038 18	2039 19	2040 20	2041 21	2042 22	2043 23	2044 24	2045 25	Total
Incremental Benefit	$	$ (203,307)	$ 2,874	$ 905	$ 390	$ (1,196)	$ (2,342)	$ (10,874)	$ (12,799)	$ (13,951)	$ (12,622)	$ (15,914)	$ (12,434)	$ (15,871)	$ (19,046)	$ (26,121)	$ (27,558)	$ (26,450)	$ (26,775)	$ (29,552)	$ (33,215)	$ (36,994)	$ (36,520)	$ (37,888)	$ (36,878)	$ (42,575)	$ (39,967)	$ (39,735)	$ (553,107)
Incremental Costs	$	$ 8,518	$ 2,253	$ 2,307	$ 2,356	$ 2,408	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,324
Net	**$**	$ (194,790)	**$ 5,127**	**$ 3,212**	**$ 2,746**	**$ 1,212**	**$ (2,342)**	**$ (10,874)**	**$ (12,799)**	**$ (13,951)**	**$ (12,622)**	**$ (15,914)**	**$ (12,434)**	**$ (15,871)**	**$ (19,046)**	**$ (26,121)**	**$ (27,558)**	**$ (26,450)**	**$ (26,775)**	**$ (29,552)**	**$ (33,215)**	**$ (36,994)**	**$ (36,520)**	**$ (37,888)**	**$ (36,878)**	**$ (42,575)**	**$ (39,967)**	**$ (39,735)**	**$ (543,783)**
BCR		**23.9**																										

COSTS		Thousands of Dollars																											
Total Incremental Capital - The substation, distribution, telecommunications, and IT infrastructure are already in place because DSDR already exists in DEP.																													
Total Incremental Capital																													
Transmission	$	$ 369	$ 98	$ 100	$ 102	$ 104	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 404
Distribution	$	$ 3,309	$ 879	$ 896	$ 914	$ 933	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,622
Telecom	$	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
IT	$	$ 3,822	$ 1,008	$ 1,033	$ 1,059	$ 1,085	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,185
PM/AFUDC	$	$ 942	$ 248	$ 258	$ 260	$ 265	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,031
Ongoing	$	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Incremental Revenue Requirement	$	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Incremental Capital	**$**	**$ 8,443**	**$ 2,233**	**$ 2,287**	**$ 2,335**	**$ 2,387**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 9,242**
Total Incremental O&M																													
Transmission	$	$ 4	$ 1	$ 1	$ 1	$ 1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4
Distribution	$	$ 33	$ 9	$ 9	$ 9	$ 9	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 36
Telecom	$	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
IT	$	$ 38	$ 10	$ 10	$ 11	$ 11	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 42
PM/AFUDC	$	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Ongoing	$	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Incremental O&M	**$**	**$ 75**	**$ 20**	**$ 20**	**$ 21**	**$ 21**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 82**
Total Costs																													
Total Capital	$	$ 8,443	$ 2,233	$ 2,287	$ 2,335	$ 2,387	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,242
Total O&M	$	$ 75	$ 20	$ 20	$ 21	$ 21	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 82
Total Incremental Capital & O&M	**$**	**$ 8,518**	**$ 2,253**	**$ 2,307**	**$ 2,356**	**$ 2,408**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 9,324**

Incremental BENEFITS		Thousands of Dollars																											
Incremental Operational Benefits																													
E_N_S Cost	$	$ 9	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9	$ -	$ -	$ -	$ -	$ -	$ 14	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (2)	$ 20
Dump Revenue	$	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Avoided Variable O&M	$	$ (7,107)	$ 308	$ 131	$ 81	$ (64)	$ (103)	$ (674)	$ (665)	$ (890)	$ (658)	$ (630)	$ (296)	$ (448)	$ (556)	$ (861)	$ (688)	$ (709)	$ (1,233)	$ (1,155)	$ (1,279)	$ (1,041)	$ (1,126)	$ (1,228)	$ (1,402)	$ (1,137)	$ (990)	$ (1,560)	$ (18,873)
Avoided Fixed O&M	$	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Avoided Reagent Cost	$	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Avoided Start Cost	$	$ (3,083)	$ 687	$ 338	$ (327)	$ (32)	$ (605)	$ (532)	$ (242)	$ (291)	$ 942	$ (934)	$ 390	$ 73	$ (515)	$ (816)	$ 206	$ (629)	$ (125)	$ 629	$ 629	$ (892)	$ (742)	$ (319)	$ (1,111)	$ (1,264)	$ (1,689)	$ (1,629)	$ (10,259)
SUBTOTAL:	**$**	**$ (10,180)**	**$ 995**	**$ 469**	**$ (246)**	**$ (96)**	**$ (708)**	**$ (1,206)**	**$ (907)**	**$ (1,181)**	**$ 284**	**$ (1,564)**	**$ 103**	**$ (375)**	**$ (1,071)**	**$ (1,677)**	**$ (481)**	**$ (1,338)**	**$ (1,358)**	**$ (1,770)**	**$ (650)**	**$ (1,933)**	**$ (1,868)**	**$ (1,547)**	**$ (2,514)**	**$ (2,401)**	**$ (2,681)**	**$ (3,389)**	**$ (29,112)**
Incremental Customer Benefits																													
Avoided Fuel Costs	$	$ (119,163)	$ 1,878	$ 436	$ 636	$ (1,100)	$ (1,633)	$ (8,479)	$ (9,359)	$ (9,221)	$ (8,851)	$ (9,267)	$ (7,727)	$ (9,368)	$ (11,259)	$ (14,566)	$ (16,860)	$ (15,629)	$ (15,566)	$ (15,634)	$ (18,879)	$ (20,092)	$ (19,735)	$ (20,755)	$ (18,993)	$ (22,382)	$ (21,086)	$ (20,232)	$ (313,721)
SUBTOTAL:	**$**	**$ (119,163)**	**$ 1,878**	**$ 436**	**$ 636**	**$ (1,100)**	**$ (1,633)**	**$ (8,479)**	**$ (9,359)**	**$ (9,221)**	**$ (8,851)**	**$ (9,267)**	**$ (7,727)**	**$ (9,368)**	**$ (11,259)**	**$ (14,566)**	**$ (16,860)**	**$ (15,629)**	**$ (15,566)**	**$ (15,634)**	**$ (18,879)**	**$ (20,092)**	**$ (19,735)**	**$ (20,755)**	**$ (18,993)**	**$ (22,382)**	**$ (21,086)**	**$ (20,232)**	**$ (313,721)**
Incremental Operational Benefits & Customer Benefits																													
SUBTOTAL:	**$**	**$ (129,343)**	**2,874**	**905**	**390**	**-1,196**	**-2,342**	**-9,685**	**-10,266**	**-10,402**	**-8,567**	**-10,831**	**-7,624**	**-9,743**	**-12,331**	**-16,242**	**-17,342**	**-16,967**	**-16,924**	**-17,404**	**-19,529**	**-22,024**	**-21,603**	**-22,302**	**-21,507**	**-24,784**	**-23,767**	**-23,621**	**-342,833**
Incremental Environmental Benefits																													
SO2	$	$ (0)	$ 1	$ 0	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ 0	$ 0	$ 0	$ 0	$ (0)	$ (0)	$ (0)	$ 0	$ (0)	$ (0)	$ (0)	$ (0)	$ 0	$ (0)	$ -	$ 0	$ 0	$ (1)
NOX	$	$ (2)	$ 0	$ 0	$ 0	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (0)	$ (6)
CO2	$	$ (73,962)	$ -	$ -	$ -	$ -	$ -	$ (1,188)	$ (2,532)	$ (3,549)	$ (4,055)	$ (5,083)	$ (4,811)	$ (6,127)	$ (6,715)	$ (9,878)	$ (10,216)	$ (9,483)	$ (9,850)	$ (12,147)	$ (13,686)	$ (14,969)	$ (14,917)	$ (15,585)	$ (15,371)	$ (17,791)	$ (16,199)	$ (16,114)	$ (210,268)
SUBTOTAL:	**$**	**$ (73,964)**	**$ 1**	**$ 0**	**$ (0)**	**$ (0)**	**$ (0)**	**$ (1,189)**	**$ (2,533)**	**$ (3,550)**	**$ (4,055)**	**$ (5,083)**	**$ (4,811)**	**$ (6,127)**	**$ (6,716)**	**$ (9,878)**	**$ (10,217)**	**$ (9,483)**	**$ (9,850)**	**$ (12,148)**	**$ (13,686)**	**$ (14,969)**	**$ (14,917)**	**$ (15,586)**	**$ (15,371)**	**$ (17,791)**	**$ (16,200)**	**$ (16,114)**	**$ (210,274)**
TOTAL (all incremental benefits)	**$**	**$ (203,307)**	**$ 2,874**	**$ 905**	**$ 390**	**$ (1,196)**	**$ (2,342)**	**$ (10,874)**	**$ (12,799)**	**$ (13,951)**	**$ (12,622)**	**$ (15,914)**	**$ (12,434)**	**$ (15,871)**	**$ (19,046)**	**$ (26,121)**	**$ (27,558)**	**$ (26,450)**	**$ (26,775)**	**$ (29,552)**	**$ (33,215)**	**$ (36,994)**	**$ (36,520)**	**$ (37,888)**	**$ (36,878)**	**$ (42,575)**	**$ (39,967)**	**$ (39,735)**	**$ (553,107)**

NPV	**Millions of Dollars**	NPV Costs	NPV Benefits	BCR	NPV Costs	NPV Benefits	BCR
Capital: Transmission	*$M*	0		-23.9	0		-23.9
Capital: Distribution	*$M*	3			3		
Capital: Telecom	*$M*	0			0		
Capital: IT	*$M*	4			4		
Capital: PM/AFUDC	*$M*	1			1		
Capital: Incremental Revenue Requirement	*$M*	0			0		
Total Incremental O&M	*$M*	0			0		
Avoided Fuel Costs	*$M*		119			119	
Dump Revenue	*$M*		0			0	
Incremental Environmental Benefits	*$M*		74			74	
E_N_S Cost	*$M*		-0			-0	
Avoided Fixed O&M	*$M*		0			0	
Avoided Start Cost	*$M*		3			3	
Avoided Reagent Cost	*$M*		0			0	
Avoided Variable O&M	*$M*		7			7	
	$M	9	203		9	203	





CAPITAL	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*	*18*	*19*	*20*	*21*	*22*	*23*	*24*	*25*	*26*
Capital: Transmission	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital: Distribution	-0.9	-0.9	-0.9	-0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital: Telecom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital: IT	-1.0	-1.0	-1.1	-1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital: PM/AFUDC	-0.2	-0.3	-0.3	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital: Incremental Revenue Requirement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
O&M																										
O&M: Transmission	-0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
O&M: Distribution	-0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
O&M: Telecom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
O&M: IT	-0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
O&M: PM/AFUDC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Incremental O&M	-0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BENEFITS																										
E_N_S Cost	0	0	0	0	0	0	0	0	0	0	-0.00867	0	0	0	0	0	0	-0.01402	0	0	0	0	0	0	0.0022	0
Dump Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avoided Variable O&M	-0.30808	-0.13089	-0.08114	0.06366	0.10311	0.67413	0.66488	0.88965	0.6583	0.63037	0.29572	0.448	0.55623	0.86081	0.68755	0.70922	1.23334	1.15536	1.2789	1.04068	1.12589	1.22807	1.40217	1.13703	0.99024	1.56018
Avoided Fixed O&M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avoided Reagent Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avoided Start Cost	-0.68735	-0.33772	0.32716	0.03214	0.6051	0.53194	0.2422	0.29104	-0.94194	0.93387	-0.39008	-0.07272	0.51515	0.81602	-0.20626	0.6286	0.12484	0.62891	-0.62907	0.89199	0.7421	0.3194	1.11138	1.26429	1.68896	1.82926
Avoided Fuel Costs	-1.8783	-0.43626	-0.63612	1.10001	1.63332	8.47866	9.3591	9.22088	8.85057	9.26679	7.72677	9.36821	11.2592	14.56557	16.86023	15.62937	15.56621	15.63389	18.87931	20.09176	19.7346	20.75454	18.99323	22.38221	21.08571	20.23163
Incremental Environmental Benefits	-0.00063	-0.00017	1E-05	0.00034	0.00012	1.18897	2.5329	3.54966	4.05521	5.08298	4.81072	6.12735	6.71561	9.87845	10.21674	9.48311	9.85018	12.14785	13.68593	14.96923	14.91745	15.58564	15.37141	17.79139	16.19953	16.11387

Base Case DSDR

Thousands of Dollars	PVRR	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Total cost	**66,194,777**	2,572,013	2,772,947	2,970,743	3,127,019	3,153,283	3,331,461	3,444,878	3,664,605	3,915,130	4,134,745	4,417,529	4,794,766	5,302,466	5,808,824	6,342,312	6,761,610	7,217,043	7,658,440	8,057,913	8,566,683	8,951,954	9,349,000	9,440,173	9,901,427	10,142,483	10,636,758
E_N_S_ cost	**1,551**	0	0	0	0	0	0	4	0	0	0	837	0	0	0	7	0	64	757	0	0	0	0	0	0	3,413	0
Dump revenue	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOM	**3,495,044**	342,007	286,067	259,455	258,945	261,471	239,261	239,409	240,729	225,789	216,415	226,489	222,969	227,401	231,036	239,310	255,147	271,047	279,363	286,610	265,583	275,150	280,828	276,931	281,195	276,614	284,518
Fuel Cost	**31,528,755**	1,682,715	1,931,206	1,929,227	1,869,641	1,889,020	1,882,528	1,785,401	1,797,417	1,747,946	1,685,043	1,748,333	1,948,095	2,246,930	2,546,274	2,857,825	2,985,607	3,074,547	3,277,041	3,438,176	3,695,220	3,831,476	3,935,249	3,846,994	4,034,517	4,113,026	4,358,952
Reagent Cost	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Cost	**1,226,408**	46,467	46,696	55,054	60,282	59,526	70,357	85,221	87,976	90,896	91,149	96,210	92,297	97,100	107,254	110,587	106,487	112,386	117,678	123,612	143,354	150,130	161,850	164,651	173,075	170,846	185,809
SO2 Cost	**420**	95	80	53	50	49	39	32	29	24	10	9	9	9	10	11	5	4	5	5	1	1	1	1	1	1	1
NOx Cost	**522**	53	52	45	45	45	40	39	38	34	31	31	31	33	35	35	32	31	33	34	32	33	34	32	34	31	32
Total FOM	**6,328,109**	241,398	249,776	269,851	283,722	288,217	300,633	307,682	327,613	352,601	382,033	413,042	439,578	464,534	499,578	534,999	591,650	640,244	681,470	726,099	781,936	833,756	912,546	1,094,498	1,176,170	1,375,871	1,446,805
Fuel Demand	**11,582,387**	259,280	259,069	457,058	654,333	654,954	653,818	659,942	674,656	821,963	975,875	986,069	994,209	989,622	971,730	988,006	1,182,715	1,356,154	1,368,602	1,385,710	1,447,754	1,476,848	1,528,293	1,543,577	1,571,217	1,584,752	1,584,752
CO2 Cost	**12,031,580**	0	0	0	0	0	184,785	367,149	536,147	675,878	784,188	946,508	1,097,579	1,276,837	1,452,907	1,611,532	1,639,968	1,762,565	1,933,492	2,097,667	2,232,801	2,384,561	2,530,199	2,513,489	2,665,217	2,617,928	2,775,890

Change Case with CVR

Thousands of Dollars	PVRR	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Total cost	**65,991,470**	2,574,888	2,773,852	2,971,133	3,125,823	3,150,941	3,320,587	3,432,079	3,650,654	3,902,508	4,118,831	4,405,095	4,778,895	5,283,420	5,782,703	6,314,754	6,735,160	7,190,268	7,628,888	8,024,698	8,529,689	8,915,434	9,311,113	9,403,295	9,858,852	10,102,517	10,597,023
E_N_S_ cost	**1,560**	0	0	0	0	0	0	4	0	0	0	846	0	0	0	7	0	64	771	0	0	0	0	0	0	3,411	0
Dump revenue	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOM	**3,487,937**	342,315	286,198	259,536	258,882	261,368	238,587	238,744	239,840	225,130	215,785	226,193	222,521	226,845	230,175	238,622	254,438	269,814	278,208	285,331	264,543	274,024	279,600	275,529	280,058	275,624	282,957
Fuel Cost	**31,409,593**	1,684,593	1,931,642	1,929,863	1,868,541	1,887,387	1,874,049	1,776,041	1,788,196	1,739,096	1,675,777	1,740,606	1,938,727	2,235,671	2,531,708	2,840,965	2,969,978	3,058,981	3,261,407	3,419,297	3,675,128	3,811,741	3,914,494	3,828,001	4,012,135	4,091,940	4,338,720
Reagent Cost	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Cost	**1,223,325**	47,154	47,034	54,727	60,250	58,921	69,825	84,979	87,685	91,838	90,215	96,600	92,369	96,585	106,438	110,794	105,858	112,261	117,049	124,241	142,462	149,388	161,531	163,540	171,811	169,157	183,980
SO2 Cost	**420**	96	80	53	50	49	38	32	29	23	10	9	9	9	10	11	5	4	5	5	1	1	1	1	1	1	1
NOx Cost	**519**	53	52	45	45	45	39	39	38	34	31	31	31	32	34	35	32	31	33	33	32	33	33	32	34	31	31
Total FOM	**6,328,109**	241,398	249,776	269,851	283,722	288,217	300,633	307,682	327,613	352,601	382,033	413,042	439,578	464,534	499,578	534,999	591,650	640,244	681,470	726,099	781,936	833,756	912,546	1,094,498	1,176,170	1,375,871	1,446,805
Fuel Demand	**11,582,387**	259,280	259,069	457,058	654,333	654,954	653,818	659,942	674,656	821,963	975,875	986,069	994,209	989,622	971,730	988,006	1,182,715	1,356,154	1,368,602	1,385,710	1,447,754	1,476,848	1,528,293	1,543,577	1,571,217	1,584,752	1,584,752
CO2 Cost	**11,957,618**	0	0	0	0	0	183,597	364,616	532,598	671,823	779,105	941,697	1,091,451	1,270,122	1,443,029	1,601,316	1,630,485	1,752,715	1,921,344	2,083,982	2,217,832	2,369,643	2,514,613	2,498,118	2,647,426	2,601,729	2,759,776

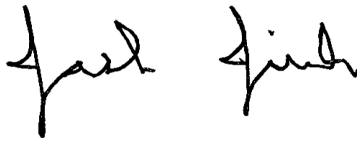
DELTA

Thousands of Dollars	PVRR	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Total cost	**-203,307**	2,874	905	390	-1,196	-2,342	-10,874	-12,799	-13,951	-12,622	-15,914	-12,434	-15,871	-19,046	-26,121	-27,558	-26,450	-26,775	-29,552	-33,215	-36,994	-36,520	-37,888	-36,878	-42,575	-39,967	-39,735
E_N_S_ cost	**9**	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	14	0	0	0	0	0	0	-2	0
Dump revenue	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOM	**-7,107**	308	131	81	-64	-103	-674	-665	-890	-658	-630	-296	-448	-556	-861	-688	-709	-1,233	-1,155	-1,279	-1,041	-1,126	-1,228	-1,402	-1,137	-990	-1,560
Fuel Cost	**-119,163**	1,878	436	636	-1,100	-1,633	-8,479	-9,359	-9,221	-8,851	-9,267	-7,727	-9,368	-11,259	-14,566	-16,860	-15,629	-15,566	-15,634	-18,879	-20,092	-19,735	-20,755	-18,993	-22,382	-21,086	-20,232
Reagent Cost	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Cost	**-3,083**	687	338	-327	-32	-605	-532	-242	-291	942	-934	390	73	-515	-816	206	-629	-125	-629	629	-892	-742	-319	-1,111	-1,264	-1,689	-1,829
SO2 Cost	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOx Cost	**-2**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total FOM	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fuel Demand	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CO2 Cost	**-73,962**	0	0	0	0	0	-1,188	-2,532	-3,549	-4,055	-5,083	-4,811	-6,127	-6,715	-9,878	-10,216	-9,483	-9,850	-12,147	-13,686	-14,969	-14,917	-15,585	-15,371	-17,791	-16,199	-16,114

CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Progress, LLC's DSDR-to-CVR Conversion Filing, in Docket Nos. E-2, Sub 926 and E-100, Sub 165, has been served by electronic mail, hand delivery or by depositing a copy in the United States mail, postage prepaid to parties of record.

This the 2nd day of August, 2021.



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