

INFORMATION SHEET

PRESIDING: Hearing Examiner Derrick Mertz

PLACE: Commission Hearing Room 2115, Dobbs Building, Raleigh, NC

DATE: Tuesday, November 9, 2022

TIME: 10:21 a.m. – 10:32 a.m.

DOCKET NOS.: E-22, Sub 645

COMPANY: Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina

DESCRIPTION: Application for Approval of Demand-Side Management and Energy Efficiency Cost Recovery Rider Pursuant to N.C.G.S. § 62-133.9 and Commission Rule R8-69

VOLUME NUMBER:

APPEARANCES

(See attached)

WITNESSES

(See attached)

EXHIBITS

(See attached)

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REPORTED BY: KM

DATE FILED: December 7, 2022

TRANSCRIPT PAGES: 27

PREFILED PAGES: 0

TOTAL PAGES: 27

1 PLACE: Dobbs Building, Raleigh, North Carolina
2 DATE: November 9, 2022
3 TIME: 10:21 a.m. - 10:32 a.m.
4 DOCKET NO.: E-22, Sub 645
5 BEFORE: Hearing Examiner Derrick Mertz
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12 IN THE MATTER OF:
13 Application by
14 Virginia Electric and Power
15 Company, d/b/a Dominion Energy North Carolina
16 for Approval of Demand-Side Management and Energy
17 Efficiency Cost Recovery Rider Pursuant to
18 G.S. § 62-133.9 and Commission Rule R8-69
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A P P E A R A N C E S:
FOR VIRGINIA ELECTRIC and POWER COMPANY, d/b/a
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Mary Lynne Grigg, Esq.
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William E.H. Creech, Esq.
Thomas Felling, Esq.
Public Staff - North Carolina Utilities Commission
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T A B L E O F C O N T E N T S

E X A M I N A T I O N S

PAGE

As a panel,
 BRIAN ENNIS, TIM CONWAY, and ANDREW WATERS
 Docket Number E-22, Sub 644,
 Transcript pages 6 through 17 8
 Direct Statements 20

E X H I B I T S

Identified / Admitted

Waters Exhibit 1 -- / 8

NORTH CAROLINA UTILITIES COMMISSION
APPEARANCE SLIP

DATE: 11/9/22 DOCKET NO.: E-22, Subs 043, 044 & 045
ATTORNEY NAME and TITLE: _____
Mary Lynne Grigg
FIRM NAME: McGuire Woods
ADDRESS: 501 Fayetteville St
CITY: Raleigh STATE: NC ZIP CODE: 27601

APPEARANCE ON BEHALF OF: _____
Dominion Energy North Carolina

APPLICANT: COMPLAINANT: INTERVENOR:
PROTESTANT: RESPONDENT: DEFENDANT:

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Yes, I have signed the Confidentiality Agreement.

Email: maria@mcguirewoods.com
SIGNATURE: [Handwritten Signature]

(Signature Required for distribution of **CONFIDENTIAL** information)

NORTH CAROLINA UTILITIES COMMISSION
PUBLIC STAFF - APPEARANCE SLIP

DATE November 9, 2022 DOCKET #: E-22, Sub 645

PUBLIC STAFF ATTORNEY: William Freeman

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/s/ William Freeman

NORTH CAROLINA UTILITIES COMMISSION
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DATE November 9, 2022 DOCKET #: E-22, Sub 645

PUBLIC STAFF ATTORNEY: William E.H. Creech

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/s/ William E.H. Creech

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DATE November 9, 2022 DOCKET #: E-22, Sub 645

PUBLIC STAFF ATTORNEY: Thomas Felling

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ENERGY _____
ECONOMICS _____
LEGAL thomas.felling@psncuc.nc.gov _____
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SIGN BELOW.

/s/ Thomas Felling

Waters Exhibit
1A

OFFICIAL COPY
Dec-07-2022

CARBON REDUCTION THROUGH ELECTRICITY CURTAILMENT

Andrew A. Waters awaters@energymarkllc.com
NOV 4, 2022

HISTORY- HOW MUCH CO2 IS CREATED IN THE US?

U.S. electricity generation in 2020 was 4.01 trillion kilowatt hours (kWh) from all energy sources resulting in **1.55 billion metric tons—1.71 billion short tons—of carbon dioxide (CO2)**. Equivalent to 0.85 pounds of CO2 emissions per kWh.

In 2020 power plants burning coal, natural gas, or petroleum fuels were sources of about 62% of total U.S. electricity generation and accounted for **99% of U.S. electricity-related CO2 emissions**.

MOST EFFECTIVE METHOD TO REDUCE CARBON EMISSION?

USE LESS ENERGY, Energy Curtailment.

“GREEN IMPACT” SIGNIFICANCE OF DEMAND RESPONSE PROGRAMS

- DR is the fastest utility, energy reduction method to reduce Carbon, CO2 emissions.
- Are Zero Cost programs to implement reducing CO2 footprints.
- Reduce Utility brown outs, emergencies, and create lower power costs.
- Improves Utility, Grid sustainability.
- Great for environment, provide healthier communities.



U.S. electric utility and independent power electricity generation and resulting CO₂ emissions by fuel in 2020

	Electricity generation	CO ₂ emissions		
	million kWh	million metric tons	million short tons	pounds per kWh
Coal	757.763	767	845	2.23
Natural gas	1,402,438	576	635	0.91
Petroleum	13,665	13	15	2.13

Electricity generation is net electricity generation. Includes electricity-only power plants. Combined heat and power plants are excluded because some of their CO₂ emissions are from fuel consumption for heating purposes.

DEMAND RESPONSE CO2 REDUCTION EXAMPLE

BALTIMORE – April 22, 2022

In celebration of Earth Day CPower Energy (U.S. LARGEST DR/ CSP) announced their customers avoided more than 286,000 metric tons of CO2 in 2021, equivalent to not burning 317,000,000 pounds of coal, through demand response (9,052 metric tons enabled) and energy efficiency (277,488 metric tons measured).

CUSTOMERS AVOIDED CO2 EMISSIONS IN TWO WAYS:

- *Power curtailment- Demand Response events reducing their electricity loads.*
- *Energy-efficiency projects that permanently reduce electricity demand.*

TOTAL CO2 AVOIDANCE 2021= 405 metric tons CO2

Equivalent to 448,096 pounds of coal not burned or 87.3 gas vehicles taken off the road for one year.

TOTAL CO2 AVOIDANCE (projected 2023)= 959 metric tons CO2

Equivalent to 1,061,046 pounds of coal not burned or 207 gas vehicles taken off the road for one year.

CONCLUSION AND SUMMARY:

Electricity curtailment and utility Demand Response programs are essential in reducing CO2 footprints. These not only benefit the community, but the utility and private business sectors. Providing a GREEN environment and easy paths to increased sustainability, directly improving air quality and saving lives.

It is essential to understand the total volume nature of our carbon footprints and importance of electricity load reduction. The more conscious we are of carbon dioxide emissions from electricity the better the air quality will be moving forward.

CO2 INFORMATION/ DR DOCUMENTS PROVIDED BY:


EIA: https://www.eia.gov/environment/emissions/co2_vol_mass.php

ENERGYMARK LLC: <https://energymarkllc.com/>

CPOWER ENERGY: <https://cpowerenergymanagement.com/>

2021¹ Net Demand Response Event Avoided Emissions² (Metric tons CO₂)
 Dighost International, Inc.

Thank You: From all of us at CPower, we appreciate your demand response participation along with all your efforts toward achieving key carbon reduction and sustainability goals. Together, we achieved 228.83 metric tons of carbon avoidance in 2021 associated with your demand response actions. We value our partnership and look forward to continuing to work together toward delivering a cleaner, more sustainable energy future.



Carbon Avoidance Summary²


Market	# Sites	Marginal Carbon Avoided (Metric tons CO ₂)
NYISO	1	228.83
TOTAL	1	228.83

This carbon emission avoidance value is equivalent to:
 Avoiding burning 253,180 lbs of coal / year
 OR
 Taking over 49.3 gas-powered passenger vehicles off the road / year

Carbon Avoidance Details


Region	Zone	Site	Address	NYISO SCE TEST		NGrid CSR EVENT(s)		TOTAL								
				Date(s)	CO ₂ Avoided	Date(s)	CO ₂ Avoided									
NYISO	Zone A	Dighost International, Inc.	1001 E Delaware Ave. Buffalo, NY 14215	9/1/2021 1pm - 2pm	5.83	6/28/2021 3pm - 7pm	223.00	228.83								
						6/29/2021 3pm - 7pm										
						8/9/2021 3pm - 7pm										
						8/10/2021 3pm - 7pm										
						8/11/2021 3pm - 7pm										
						8/12/2021 3pm - 7pm										
						8/25/2021 3pm - 7pm										
						8/26/2021 3pm - 7pm										
						Zone A SUBTOTAL				1 Hr	5.83	32 Hrs	223.00	228.83		
						NYISO TOTAL				1 Hr	5.83	32 Hrs	223.00	228.83		
GRAND TOTAL								228.83								

¹ Demand Response event measurement period covers the 12-month span including November 2020 through October 2021.
² Net Demand Response event avoided emissions represent the marginal carbon emissions avoided as a direct outcome of actual DR participation at the individual site location at the time/day of the noted test or event. Please see your CPower performance report to view actual load performance. Marginal emissions data and avoided carbon calculations sourced through CPower partner WattTime.
³ Metrics provided in this report should not be used for Scope 1, 2, or 3 GHG emissions protocol reporting. To translate the value of the metric tons of carbon avoided to something more tangible, enter the total value into the equivalency calculator available at the below link.
[Online EPA Equivalency Calculator](#)

Data & Calculations by: 

2021¹ Net Demand Response Event Avoided Emissions² (Metric tons CO₂)
 Northeast Data, LLC

Thank You: From all of us at CPower, we appreciate your demand response participation along with all your efforts toward achieving key carbon reduction and sustainability goals. Together, we achieved 24.22 metric tons of carbon avoidance in 2021 associated with your demand response actions. We value our partnership and look forward to continuing to work together toward delivering a cleaner, more sustainable energy future.



Carbon Avoidance Summary²

Market	# Sites	Marginal Carbon Avoided (Metric tons CO ₂)
NYISO	1	24.22
TOTAL	1	24.22

This carbon emission avoidance value is equivalent to:
 Avoiding burning 26,797 lbs of coal / year
 OR
 Taking over 5.2 gas-powered passenger vehicles off the road / year

Carbon Avoidance Details

Region	Zone	Site	Address	NYISO SCE TEST		NGrid CSR EVENT(s)		TOTAL							
				Date(s)	CO ₂ Avoided	Date(s)	CO ₂ Avoided								
NYISO	Zone A	Northeast Data, LLC	5380 Frontier Ave. Niagara Falls, NY 14304	9/1/2021 1pm - 2pm	0.00	6/28/2021 3pm - 7pm	24.22	24.22							
						6/29/2021 3pm - 7pm									
						8/9/2021 3pm - 7pm									
						8/10/2021 3pm - 7pm									
						8/11/2021 3pm - 7pm									
						8/12/2021 3pm - 7pm									
						8/25/2021 3pm - 7pm									
						8/26/2021 3pm - 7pm									
						Zone A SUBTOTAL				0.00	0.00	24.22	24.22		
						NYISO TOTAL				0.00	0.00	24.22	24.22		
GRAND TOTAL							24.22								

¹ Demand Response event measurement period covers the 12-month span including November 2020 through October 2021.
² Net Demand Response event avoided emissions represent the marginal carbon emissions avoided as a direct outcome of actual DR participation at the individual site location at the time/day of the noted test or event. Please see your CPower performance report to view actual load performance. Marginal emissions data and avoided carbon calculations sourced through CPower partner WattTime.
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Data & Calculations by: 