

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1146

In the Matter of	)	TESTIMONY OF
Application of Duke Energy Carolinas,	)	JAY LUCAS
LLC, for Adjustment of Rates and	)	PUBLIC STAFF – NORTH
Charges Applicable to Electric Utility	)	CAROLINA UTILITIES
Service in North Carolina	)	COMMISSION
	)	

**BEFORE THE NORTH CAROLINA UTILITIES COMMISSION****DOCKET NO. E-7, SUB 1146****TESTIMONY OF JAY LUCAS  
ON BEHALF OF THE PUBLIC STAFF  
NORTH CAROLINA UTILITIES COMMISSION****January 23, 2018**

1   **Q.   PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND PRESENT**  
2       **POSITION.**

3   A.   My name is Jay Lucas. My business address is 430 North Salisbury Street,  
4       Dobbs Building, Raleigh, North Carolina. I am an engineer with the Electric  
5       Division of the Public Staff – North Carolina Utilities Commission.

6   **Q.   BRIEFLY STATE YOUR QUALIFICATIONS AND DUTIES.**

7   A.   My qualifications and duties are included in Appendix A.

8   **Q.   WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

9   A.   The purpose of my testimony is to present to the Commission the Public  
10       Staff's position on whether Duke Energy Carolinas, LLC (DEC or the  
11       Company) should be permitted to recover the costs of disposing coal ash  
12       from the Riverbend Plant at the Brickhaven facility through the fuel clause,  
13       G.S. 62-133.2(a1)(9), as presented in the general rate case filed by DEC in  
14       Docket No. E-7, Sub 1146 on August 25, 2017.

1     **Q.     WHAT IS THE STATUTE APPLICABLE TO THIS ISSUE?**

2     A.     Under G.S. 62-133.2(a1)(9), the “cost of fuel and fuel-related costs shall be  
3             adjusted for any net gains or losses resulting from any sales by the electric  
4             public utility of by-products produced in the generation process to the extent  
5             the costs of the inputs leading to that by-product are costs of fuel or fuel-  
6             related costs”002E

7     **Q.     PLEASE EXPLAIN THE COMPANY’S POSITION REGARDING THE**  
8             **RECOVERY OF CERTAIN COAL ASH COSTS THROUGH THE FUEL**  
9             **ADJUSTMENT CLAUSE, G.S. 62-133.2.**

10    A.     DEC seeks to recover through the fuel adjustment clause the costs of  
11             paying Charah, LLC (Charah), to excavate coal ash from the coal ash ponds  
12             at DEC’s Riverbend Plant, transport it to a former clay mine in Chatham  
13             County (Brickhaven), and deposit the coal ash at Brickhaven. According to  
14             Company witnesses McGee and Kerin, the “beneficial reuse” of the  
15             Riverbend coal ash at Brickhaven constitutes a “sale” of a by-product  
16             produced in the generation process and, therefore, associated gains or  
17             losses on the sale should be recoverable pursuant to G.S. 62-133.2(a1)(9).

18    **Q.     DOES THE PUBLIC STAFF AGREE THAT THE COSTS RELATING TO**  
19             **THE DISPOSAL OF COAL ASH AT BRICKHAVEN ARE RECOVERABLE**  
20             **THROUGH THE FUEL ADJUSTMENT CLAUSE?**

1 A. No. For the reasons described in more detail below, the Public Staff  
2 believes that any such costs, to the extent they are reasonable and prudent,  
3 should be recovered in base rates and not through the fuel adjustment  
4 clause because the costs did not result from the sale of coal ash.

5 **Q. WHAT IS BRICKHAVEN?**

6 A. Brickhaven is a former clay mine consisting of 334 acres located in  
7 Chatham County, North Carolina. By Special Warranty Deed recorded on  
8 November 13, 2014<sup>1</sup>, Green Meadow, LLC, a wholly owned subsidiary of  
9 Charah, purchased Brickhaven from General Shale Brick, Inc. On June 5,  
10 2015, Green Meadow, LLC and Charah received a permit from DEQ to  
11 construct and operate Brickhaven as a "Solid Waste Management Facility,  
12 Structural Fill, Mine Reclamation"<sup>2</sup>.

13 **Q. WHO IS CHARAH?**

14 A. Charah is a Kentucky-based company. According to its website, "Charah  
15 is the largest privately-held provider of coal combustion product (CCP)  
16 management for the coal-fired power generation industry in the U.S."<sup>3</sup>

---

<sup>1</sup> Deed Book 1770, Page 99, Chatham County Registry.

<sup>2</sup> The permit was issued pursuant to G.S. 130A-309.218 et. seq., relating to siting, design, construction, operation, and closure of projects that utilize coal combustion products for structural fill.

<sup>3</sup> <http://charah.com/>.

1    **Q.    WHAT IS THE RELATIONSHIP BETWEEN CHARAH AND DEC**  
2           **REGARDING THE RIVERBEND PLANT AND BRICKHAVEN?**

3    A.    Charah is under contract with Duke Energy Business Services, LLC  
4           (DEBS), as agent for DEC, to excavate coal ash from the Riverbend Plant  
5           and transport and deposit the coal ash at Brickhaven.

6    **Q.    WHAT WAS THE PROCESS DEBS USED TO CHOOSE CHARAH TO**  
7           **PERFORM THESE SERVICES?**

8    A.    In July of 2014, DEBS, on behalf of DEC and Duke Energy Progress, LLC  
9           (DEP), issued a bidding event for the excavation, transportation, and off-  
10          site storage of the full volume of ash at four sites: Riverbend, Dan River,  
11          and Sutton in North Carolina and W.S. Lee in South Carolina.

12          In August of 2014, DEBS requested pricing from a short list of bidders to  
13          install the infrastructure to remove, transport, and place off-site the  
14          Riverbend Plant ash stack (Riverbend Phase 1 request).<sup>4</sup> Charah was  
15          awarded the contract.

16    **Q.    PLEASE DESCRIBE THE CONTRACT BETWEEN DEBS AND CHARAH**  
17           **REGARDING THE REMOVAL OF COAL ASH FROM THE RIVERBEND**  
18           **PLANT.**

---

<sup>4</sup> See Docket No. E-2, Sub 1142, Kerin Public Staff Cross-Examination Exhibit 1.

1 A. DEBS (as agent for DEC and DEP) and Charah entered into Master  
2 Contract 8323 (Master Contract) dated November 12, 2014, for the Phase  
3 1 Excavation Work at the Riverbend and Sutton Plants<sup>5</sup>. Charah is referred  
4 to as the “Seller” or “Contractor” in the Master Contract. Charah is not  
5 referred to as a “Buyer”. The Master Contract defined the type and scope  
6 of work, terms and conditions, pricing, and invoicing. The Master Contract  
7 contemplated the issuance of subsequent Purchase Orders as written  
8 authorization to proceed with the scope of work identified in the Purchase  
9 Order.

10 **Q. WHAT IS THE SCOPE OF WORK AND PRICING SCHEDULE FOR**  
11 **RIVERBEND AS DEFINED IN THE MASTER CONTRACT?**

12 A. The Riverbend Phase 1 Work Scope was set forth in Exhibit D-1 of the  
13 Master Contract. It included the installation of haul roads, engineering the  
14 development of a rail loading system, erosion and sedimentation control,  
15 dewatering, ash pond excavation, transportation, unloading, and  
16 placement.

17 The Seller’s (i.e., Charah’s) Pricing Schedule for Riverbend was set forth as  
18 Exhibit E. The Pricing Schedule included both fixed pricing and per ton

---

<sup>5</sup> The Master Contract was entered into the record in the DEP rate case in Docket No. E-2, Sub 1142 (DEP Rate Case) as McGee Confidential Public Staff Cross-Examination Exhibit No. 6. The deed for Brickhaven was recorded the day after the Master Contract was executed. The timing of these two events (along with the fact that the Master Contract identifies Brickhaven as the site for placement of the Riverbend and Sutton ash) tends to show that Brickhaven was purchased for the purpose of providing a disposal site for DEC’s (and DEP’s) coal ash.

1 pricing. The fixed pricing was for mobilization, site preparation, erosion and  
2 sedimentation control work. The per ton pricing was for excavation, loading  
3 and transportation, unloading, development, placement, home and field  
4 office overhead, and profit.

5 **Q. DID THE SCOPE OF WORK IN EXHIBIT D-1 OR THE PRICING**  
6 **SCHEDULE IN EXHIBIT E FOR RIVERBEND AS YOU DESCRIBE**  
7 **INCLUDE ANY PRICING OR DISCOUNT TO ACCOUNT FOR A SALE OF**  
8 **COAL ASH TO CHARAH?**

9 A. No.

10 **Q. WERE PURCHASE ORDERS ISSUED PURSUANT TO THE MASTER**  
11 **CONTRACT FOR REMOVAL OF COAL ASH FROM THE RIVERBEND**  
12 **PLANT?**

13 A. Yes. DEBS and Charah entered into Purchase Orders authorizing Charah  
14 to transport ash from Riverbend by truck to Brickhaven and then to construct  
15 and transport ash by rail to Brickhaven. Purchase Orders 2278895 and  
16 5050808 constituted the vast majority of the excavation, transportation, and  
17 disposal work for Riverbend; change orders were executed for these  
18 Purchase Orders.

19 **Q. DID THE SCOPE OF WORK OR PRICING SET FORTH IN THE**  
20 **PURCHASE ORDERS (OR CHANGE ORDERS) INCLUDE ANY PRICING**  
21 **OR DISCOUNT TO ACCOUNT FOR A SALE OF COAL ASH TO**

1           **CHARAH?**

2     A.     No.

3     **Q.     WHAT IS THE BASIS, THEN, OF THE COMPANY'S POSITION THAT**  
4           **THE CONTRACTUAL ARRANGEMENT REPRESENTS A "SALE"**  
5           **UNDER THE FUEL ADJUSTMENT CLAUSE?**

6     A.     In response to a data request, the Company stated the following:

7           A sale has occurred since there is a transfer of ownership to a third party  
8           and the by-product has an intrinsic value to the purchaser, based on its  
9           ability to be re-used for beneficial purposes. The coal ash by-product was  
10          produced during the generation process where the cost of the inputs, coal,  
11          were included in the fuel filing as burned.

12          The Company further stated, in another part of its response:

13          The nature of the sale of coal ash to Charah where the cost of the services  
14          provided by Charah, net the value of the coal ash provided by the Company  
15          (DEC) for beneficial reuse results in a net loss to DEC.

16          The Public Staff asked the Company in a follow-up question to explain in  
17          detail and provide all documents supporting the statement that the "by-  
18          product [coal ash] has an intrinsic value to the purchaser. The Company  
19          responded:



1 The coal ash has value in that it can be used in a process as a substitute  
2 for an alternative material. The end user will forego the purchase of another  
3 material by purchasing the coal ash. The compensation to DEC may be  
4 reflected in the terms of the contract with Charah either by specified sales  
5 proceeds per ton or may be expressed indirectly through the values agreed  
6 to on other terms and conditions in the contract. The overall economics of  
7 the sales agreement reflect the intrinsic value of the coal ash.

8 The Public Staff also asked the Company to identify the specific language  
9 in the contracts and amendments between DEC and Charah that support  
10 the Company's assertion that the transaction represents a "sale." In  
11 response, DEC referred to Sections 3 (regarding Title) and 4 (regarding  
12 Payment; Audit; Financial Assurance) of the Master Contract.

13 **Q. HOW DO YOU RESPOND TO THE COMPANY'S POSITION?**

14 A. First, with respect to the arrangement between the Company and Charah  
15 (the third party referenced in DEC's data response), nothing in the bid  
16 documents, contracts, purchase orders, or change orders for the Riverbend  
17 Plant produced in discovery assign any value to the coal ash to "net" against  
18 the cost of the services provided by Charah. When asked to provide all  
19 documents that show how the Company or Charah calculated the "net  
20 value" of or discount value of coal ash when setting the cost of services  
21 provided by Charah, the Company responded that it had no responsive  
22 documents. In addition, when asked how much Charah paid the Company

1 for the Riverbend coal ash, the Company responded that “there is not a  
2 defined monetary price in the operative documents for the Riverbend ash  
3 but rather Charah compensated the Company for the ash through the  
4 provision of certain services at Riverbend.”

5 Certainly, DEC and Charah knew how to assign a value to coal ash in a  
6 sale: pursuant to a Master By Product Marketing, Sales, and Storage  
7 Agreement (Agreement) entered into by DEC, DEP, and Charah in  
8 December of 2013, and associated Work Orders, Charah was obligated to  
9 purchase coal ash from DEP or DEC, as applicable, at a price as set forth  
10 in the Work Orders. This Agreement formed the basis for the sale of coal  
11 ash at the Belews Creek and Marshall plants via Work Orders entered into  
12 by DEC and Charah on January 1, 2014.

13 The specific provisions relating to the services and pricing in the Master  
14 Contract, Purchase Orders, and change orders for Riverbend all support  
15 the conclusion that the arrangement was one for Charah to provide ash  
16 disposal services to DEC, not for a sale of DEC’s coal ash to Charah. In its  
17 data responses, DEC referenced Sections 3 and 4 of the Master Contracts  
18 in support of its assertion that a sale occurred. The Company produced  
19 several master contracts<sup>6</sup> for ash excavation and landfill disposal with the  
20 same or similar provisions, so clearly the language is boilerplate and does

---

<sup>6</sup> These contracts were admitted into evidence in the DEP Rate Case as Public Staff McGee Confidential Exhibits 7, 8, 9, and 10.

1 not support a finding that a sale has occurred. Obviously, no one would  
2 purchase coal ash just to put it in a landfill.

3 Further, the language of Section 3 itself, relating to Title, does not support  
4 a conclusion that the contract is one for a sale of coal ash. The second  
5 sentence of that section states that “the Contractor [Charah] is not assuming  
6 any responsibility for any liabilities arising out of or are related to the  
7 creations, existence, storage, or handling of the Ash prior to the time title to  
8 the Ash passes to Contractor.” In the Public Staff’s opinion, this language  
9 supports a conclusion that the parties considered the ash to have no value  
10 and in fact was a liability, and the responsibility for its transport and ultimate  
11 disposition needed to be contractually determined.

12 Regarding Section 4, although the provisions states that the services to be  
13 performed by Charah constituted payment by Charah for the ash, as noted  
14 above, DEC has admitted that there was no defined price for the ash and  
15 no documentation showing that the parties assigned any value at all to the  
16 ash. There was no defined price because the ash had no value. The  
17 provisions of both the Master Contract and Purchase Orders, along with the  
18 circumstances surrounding them, overwhelmingly point to a contract for  
19 services, not a sale.

1 Q. WHAT ABOUT THE COMMISSION REPORT CITED BY WITNESS  
2 MCGEE IN HER TESTIMONY?

3 A. The findings in the “Commission Report”<sup>7</sup> do not support DEC’s conclusion  
4 that the costs of the beneficial reuse of coal ash are recoverable through  
5 the fuel clause. The General Assembly, in the legislation, directed the  
6 Commission to specifically address in its report “possible revisions to the  
7 current policy on allowed incremental cost recoupment that would promote  
8 reprocessing and other technologies that allow the re-use of coal  
9 combustion residuals stored in surface impoundments for concrete and  
10 other beneficial end uses.” The Commission’s Report examined the  
11 statutory framework for cost recovery and concluded that current policies  
12 and practices are adequate to encourage re-use of CCRs for concrete and  
13 other beneficial end uses. However, as recognized by the Commission in  
14 the report, recovery through the fuel clause presupposes that there is a sale.  
15 On page 13 of the report, the Commission states, “Customers’ rates are  
16 adjusted annually to include profits or losses associated with efforts to sell  
17 CCRs for beneficial re-use.” On page 14 of the report, the Commission  
18 recognized that “sales of CCRs typically result in immediate net costs to  
19 ratepayers. For the most part, the electric utilities, as stated in their

---

<sup>7</sup> *Report of the North Carolina Utilities Commission to the Joint Legislative Commission on Governmental Operations, the Joint Legislative Transportation Oversight Committee, and the Environmental Review Commission Regarding The Incremental Cost Incentives Related To Coal Combustion Residuals Surface Impoundments For Investor-Owned Public Utilities In North Carolina*, January 15, 2016.

1            comments, are reusing CCRs from recently burned coal and not CCRs  
2            currently stored in surface impoundments.” The Commission did not  
3            conclude in its report that the costs of processing coal ash for beneficial  
4            use, without a sale, are recoverable in the fuel clause and did not recognize  
5            the re-use of coal ash from surface impoundments as a common practice.

6            If there is an actual sale of coal ash, cost recovery through the fuel clause  
7            may be appropriate, if the costs are reasonably and prudently incurred.

8            Where, however, there is a contract for services not involving a sale of coal  
9            ash, costs arising from that contract should not be recoverable through the  
10          fuel clause. I conclude that the true purpose of moving coal ash from  
11          Riverbend to Brickhaven is for environmental remediation and the disposal  
12          of coal ash, not for the sale of a byproduct.

13    **Q.       DOES THIS CONCLUDE YOUR TESTIMONY?**

14    **A.       Yes, it does.**

## Appendix A

### Jay B. Lucas

I graduated from the Virginia Military Institute in 1985, earning a Bachelor of Science Degree in Civil Engineering. Afterwards, I served for four years as an engineer in the Air Force performing many civil and environmental engineering tasks. I left the Air Force in 1989 and attended the Virginia Polytechnic Institute and State University, earning a Master of Science degree in Environmental Engineering. After completing my graduate degree, I worked for an engineering consulting firm and worked for the North Carolina Department of Environmental Quality in its water quality programs. Since joining the Public Staff in January 2000, I have worked on utility cost recovery, renewable energy program management, customer complaints, and other aspects of utility regulation. I am a licensed Professional Engineer in North Carolina.