BEFORE THE NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-7, SUB 1104

In the Matter of:	**)**	
Application of Duke Energy Carolinas,	**)**	**NCSEA'S POST HEARING**
LLC Pursuant to G.S. 62-133.2 and	**)**	**BRIEF**
NCUC Rule R8-55 Relating to Fuel and	**)**	**[PUBLIC]**
Fuel-Related Charge Adjustments for	**)**	
Electric Utilities	**)**	

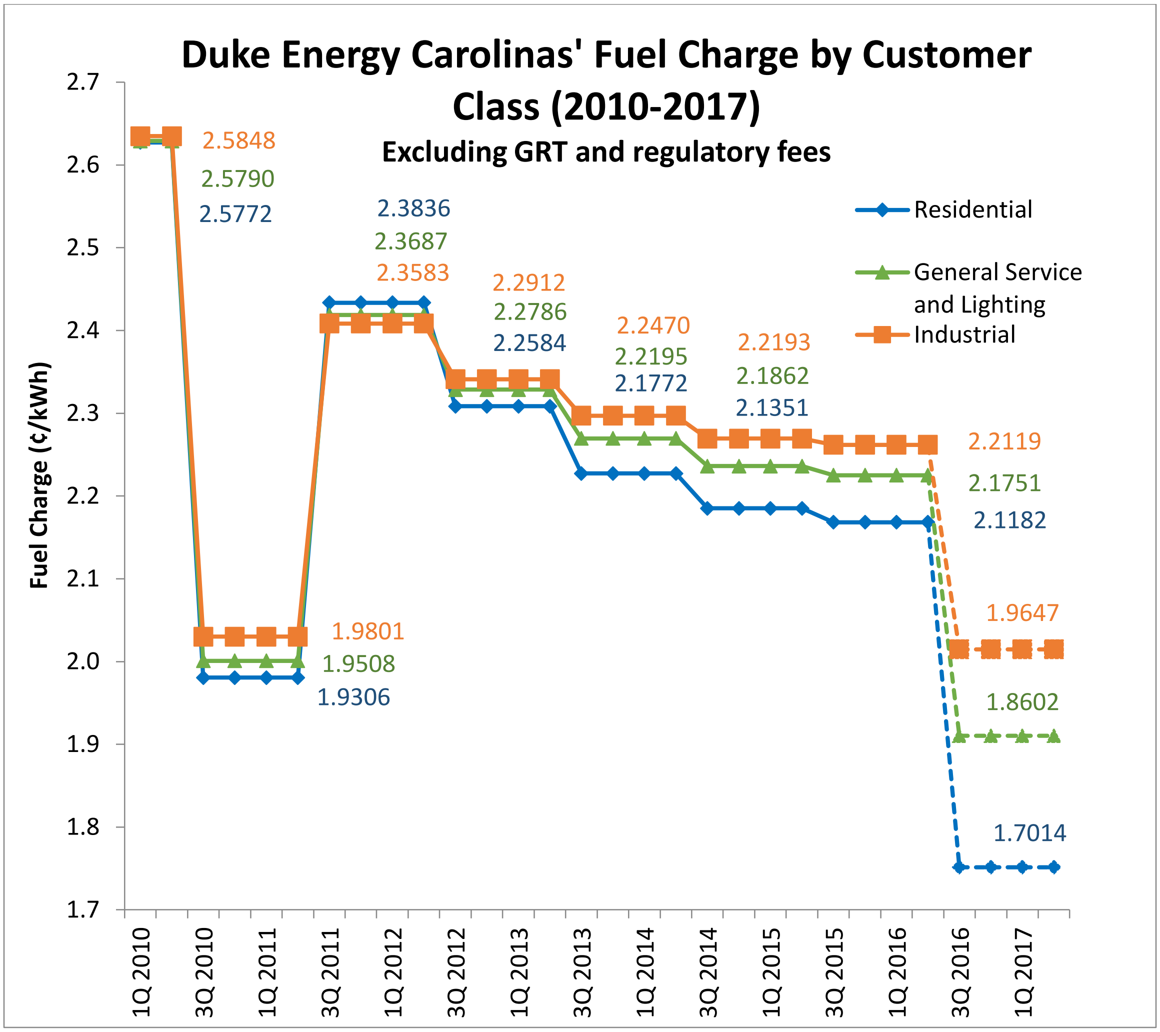
NCSEA'S POST HEARING BRIEF

The North Carolina Sustainable Energy Association ("NCSEA") submits this post-hearing brief in accordance with *Notice of Mailing of Due Date of Post-Hearing Filings* issued by the North Carolina Utilities Commission ("Commission") on June 14, 2016. NCSEA does not challenge any costs for which Duke Energy Carolinas, LLC ("DEC") seeks recovery in its fuel and fuel-related rider application as unreasonable or imprudent. NCSEA does, however, wish to focus the Commission's attention on DEC's natural gas hedging practices and how long-term hedging periods can help minimize the risk of future "rate shocks" to ratepayers.

DEC'S PROPOSED RIDER CHARGES IN CONTEXT

As illustrated in **Figure 1**, the charges in DEC's fuel rider have fluctuated in recent years, but seem generally to be declining over time. In this proceeding, DEC has proposed fuel riders, inclusive of the experience modification factors but excluding the regulatory fee, in the amount of 1.7014 ¢/kWh for the residential rate class, 1.8602 ¢/kWh for the general service/commercial rate class, and 1.9647 ¢/kWh for the industrial rate class. DEC's proposed riders, if approved, represent a decrease from the last approved fuel rider of 0.4168 ¢/kWh, 0.3149 ¢/kWh, and 0.2472 ¢/kWh in the charges for the residential, general service/commercial, and industrial rate classes respectively.

Figure 1[1]



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[1] *Duke Energy's Revised Compliance Tariffs, Fuel Cost Adjustment Rider (NC)*, Docket No. E-7, Sub 909 (Dec. 21, 2009); *Duke's Rate Schedule/Riders/Summary of Rider Adjustments Effective July 1, 2011 (OC in E-7 Sub 982), Summary of Rider Adjustments*, Docket No. E-7, Sub 909 (July 11, 2011); *Order Approving Customer Notice with Edits, Appendix A*, p. 1, Docket No. E-7, Sub 982 (Aug. 26, 2011); *Duke's Rate Schedules, Fuel Cost Adjustment Rider (NC)*, Docket No. E-7, Sub 989 (Feb. 1, 2012); *Order Approving Fuel Charge Adjustment*, pp. 19-20, Docket No. E-7, Sub 1002 (Aug. 16, 2012); *Order Approving Fuel Charge Adjustment*, pp. 33-34, Docket No. E-7, Sub 1033 (Aug. 20, 2013); *Order Approving Fuel Charge Adjustment*, pp. 27-28, Docket No. E-7, Sub 1051 (Aug. 14, 2014); *Order Approving Fuel Charge Adjustment*, p. 23, Docket No. E-7, Sub 1072 (July 24, 2015); *DEC's Application and Testimony of Kim H. Smith, Swati V. Daji, Joseph A. Miller, Jr., T. Preston Gillespie, Jr., and David C. Culp*, p. 3, Docket No. E-7, Sub 1104 (March 9, 2016).

NCSEA does not challenge any costs for which DEC seeks recovery in its fuel and fuel-related rider application as unreasonable or imprudent, but NCSEA does wish to focus the Commission's attention on DEC's natural gas hedging practices, the costs of these practices, and how these costs may be mitigated to an extent.

DEC's Hedging Practices

DEC's consumption of natural gas is steadily increasing and this trend is expected to continue during the billing period. *Direct Testimony of Swati V. Daji,* p. 7 (March 9, 2016) ("DEC's current natural gas burn projection for the billing period is approximately 84 Bcf, which is an increase from the 76.8 Bcf consumed during the test period."). As DEC's consumption of natural gas increases, it becomes increasingly prudent and reasonable to try to protect customers from the price volatility that has historically been associated with natural gas. Natural gas hedges are one means of providing DEC's customers with insulation from or insurance against price volatility. Another means of providing such protection is diversification of the generation fleet that serves DEC's customers so that the fleet includes more generating facilities that do not consume fuel (or that consume only renewable fuels) and the implementation of energy efficiency measures.

I. The Changes to DEC's Hedging Plan

During the test year, DEC has changed their hedging activities from covering a rolling 24-month time period to covering a rolling 36-month time period. *Compare Direct Testimony of Swati V. Daji*, p. 9, Docket No. E-7, Sub 1074 (March 4, 2015) ("The Company's current hedging activities cover a rolling 24-month time period…"), *with Direct Testimony of Swati V. Daji,* p. 9, Docket No. E-7, Sub 1104 (March 9, 2016) ("The Company's current hedging activities cover a rolling 36-month time period…"). DEC initially proposed to extend its hedging program to include [BEGIN CONFIDENTIAL] [redacted] [END CONFIDENTIAL]. *NCSEA Confidential Exhibit 1*, p. 11. After interacting with the Public Staff, DEC appears to have revised its proposal to only extend its hedging program to include 36-month hedges.

While DEC previously targeted to hedge 50% of forecasted natural gas burns for months 1 to 12 and 30% of forecasted natural gas burns for months 13 to 24, the Company now targets to hedge 50% of forecasted natural gas burns for months 1 to 12, 30% of forecasted natural gas burns for months 13 to 24, and 15% of forecasted natural gas burns for months 25 to 36. *See*, **Figure 2**.

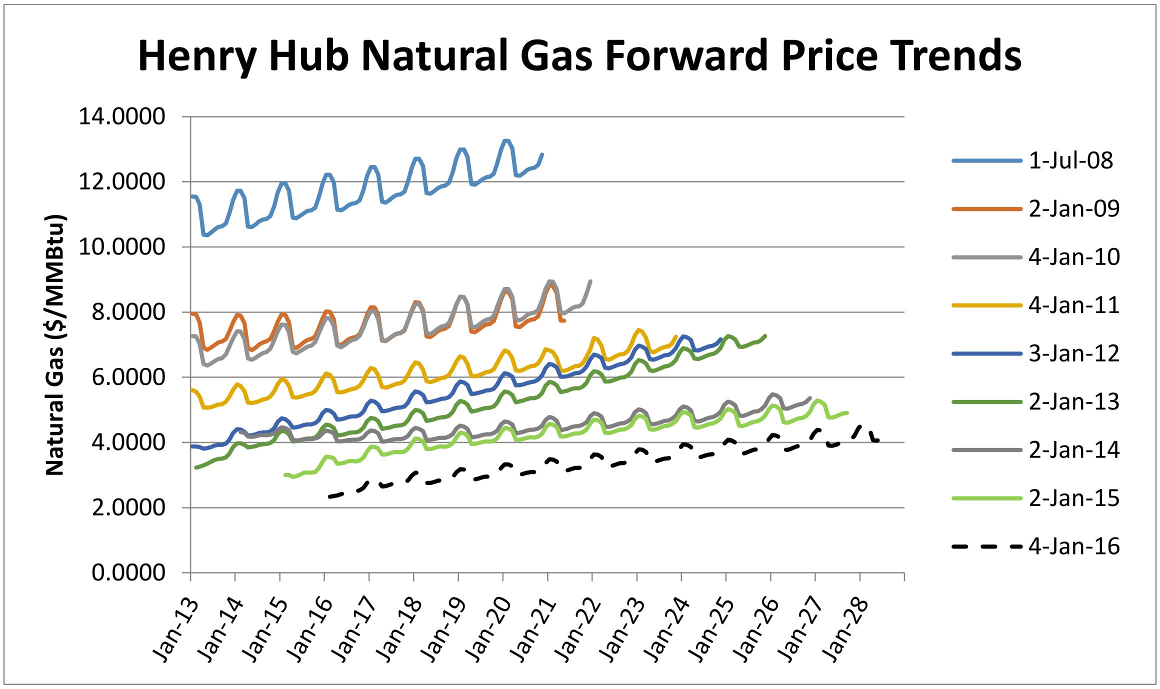
Figure 2			
	Year 1	Year 2	Year 3
2015 Hedging Plan (Docket No. E-7, Sub 1074)	50% of Natural Gas Burns Hedged	30% of Natural Gas Burns Hedged	
2016 Hedging Plan (Docket No. E-7, Sub 1104)	50% of Natural Gas Burns Hedged	30% of Natural Gas Burns Hedged	15% of Natural Gas Burns Hedged

II. THE PURPOSE OF HEDGING

Hedging is not a tool designed to "lock-in" low prices. Rather, hedging is designed to mitigate volatility in fuel prices, and the "rate shock" to customers that volatility can cause. "[A]bsent hedging, the price paid for all of the natural gas procured by the Utilities is at risk and will fluctuate based on market movements until physical delivery occurs." *Direct Testimony of Swati V. Daji*, p. 9 (March 9, 2016). DEC's hedging plan is designed "to manage fuel cost price risk and dampen price volatility for customers[.]" *Natural Gas Hedging Report for Duke Energy Carolinas, LLC and Duke Energy Progress, Inc.*, p. 1, Docket No. E-100 Sub 47A (Jan. 31, 2014).

Hedging can, however, provide the ancillary benefit of locking in low fuel prices, and it is worth noting that natural gas prices are currently near historic lows, as is shown in **Figure 3**. *Direct Testimony of Swati V. Daji*, p. 9 (March 9, 2016).

Figure 3[2]



III. <u>LONGER TERM HEDGES</u>

Given these historically low natural gas prices in the current market, and the low prices being offered as far out as five years in the future, it seems prudent for DEC and the Public Staff to explore extending DEC's hedging practices to include longer-term hedges of up to 60-months. Over the past two years, DEC has considered hedging periods of up to 60-months. *NCSEA Exhibit 1*, p. 14. Furthermore, DEC recognizes that hedging periods of more than 36-months provide certain benefits, stating that "The benefit to hedging periods longer than 36 months is that it provides a measure of stability and certainty to customers'

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[2] *NCSEA Exhibit 1*, pp 4-9.

fuel costs related to natural gas usage, while not hedging increases the customers' exposure to changes in natural gas price over time." *NCSEA Exhibit 1*, p. 13.

It is NCSEA's position that the Commission, DEC, and the Public Staff should perennially be exploring longer-term hedging opportunities that will minimize the risk of future "rate shocks" for ratepayers.[3] Exploring hedging periods of 48 to 60-months seems particularly reasonable, as it appears there is sufficient liquidity in the market during those periods to ensure that transactions occur at arm's length and are based on the best presently available information. *See*, *Initial Statement of the Public Staff*, pp. 29-30, Docket No. E-100, Sub 140 (June 22, 2015) ("The use of five years is appropriate, because the market for ten year futures is relatively illiquid, meaning that the number of natural gas price investors willing to make buy and sell decisions on prices ten years out in the future is much smaller than with the number of investors in the futures market for five years into the future[.]"). While 48 to 60-month hedging periods may be reasonable based on market liquidity during those periods, terms longer than that do not appear reasonable at this time.[4]

[3] NCSEA believes that one beneficial form of hedging fuel costs is integrating fixed price contracts with qualifying facilities into DEC's generation portfolio. *See*, *NCSEA's Post-Hearing Brief*, pp. 7-8, Docket No. E-7, Sub 1072 (July 2, 2015). The Commission has recognized the benefit of renewable energy generation as a form of hedging as well. *Order Setting Avoided Cost Input Parameters*, p. 42, Docket No. E-100, Sub 140 (Dec. 31, 2014).

[4] For this very reason, NCSEA opposes integration of 10 years of market prices into DEC's fuel forecast for avoided cost calculations. The Commission has given DEC the opportunity to propose changes to its fuel forecast methodology in its upcoming integrated resource plan, which is due to be filed in September. *Order Establishing Standard Rates and Contract Terms for Qualifying Facilities*, p. 7, Docket No. E-100, Sub 140 (Dec. 17, 2015). But, as put by the Public Staff, "the market for ten year futures is relatively illiquid, meaning that the number of natural gas price investors willing to make buy and sell decisions on prices ten years out in the future is much smaller than with the number of investors in the futures market for five years into the future[.]" *Initial Statement of the Public Staff*, pp. 29-30, Docket No. E-100, Sub 140 (June 22, 2015).

CONCLUSION

NCSEA does not challenge any costs for which DEC seeks recovery in its fuel and fuel-related rider application as unreasonable or imprudent. NCSEA does, however, wish to focus the Commission's attention on DEC's natural gas hedging practices, the costs of these practices, and how these costs may be mitigated to an extent. Accordingly, NCSEA prays the Commission direct DEC and the Public Staff to explore 48 to 60-month hedging opportunities that can minimize the risk of future "rate shocks" for ratepayers.

Respectfully submitted, this the 7th day of July, 2016.

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CERTIFICATE OF SERVICE

I hereby certify that all persons on the docket service list have been served true and accurate copies of the foregoing Post-Hearing Brief by hand delivery, first class mail deposited in the U.S. mail, postage pre-paid, or by email transmission with the party's consent.

This the 7th day of July, 2016.

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