

Duke's Fracking Up the Climate!

Connecting Hydraulic Fracturing in North Carolina to Climate Change and Duke Energy

A Report Prepared
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A NOTE ON THIS REPORT

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ABSTRACT

This report arose out of inquiries NC WARN received from its members regarding NC WARN's stance on hydraulic fracturing, or "fracking." Many members wanted to see the climate justice organization take on a larger role in counteracting the industrial and legislative push for fracking in North Carolina. Though NC WARN, in partnership with many other North Carolinian activist organizations, helped found the group Frack-Free NC, NC WARN has stayed on the periphery of the fracking fight as it focuses most of its resources on combating Duke Energy's utility monopoly. This report intends to highlight the ways in which NC WARN can use its unique focus on climate change and environmental justice to lend its support to the anti-fracking effort in North Carolina.

INTRODUCTION

Hydraulic fracturing, commonly referred to as "fracking," is a process of extracting natural gas from underground shale deposits by blasting a high-pressure cocktail of water, sand, and chemicals into deep-injection wells.¹ The fracked natural gas then flows back up the wells, along with much of the fracking fluid—but a lot of the fluid remains in the ground.² The chemicals used in fracking fluid are highly toxic, and have been shown to cause cancer and other health impairments.³ As such, fracking presents an astronomical threat to drinking water supplies in North Carolina.

However, due to the momentum harnessed by groups such as Clean Water for North Carolina (CWFNC), the local chapter of Food and Water Watch (FWW), and Frack-Free NC regarding issues of groundwater contamination, NC WARN may choose to focus on another impact of hydraulic fracturing: climate change. It is the author's understanding that the impacts

¹ Taylor, Hope, Grant Mincy and Maribel Sierra. "Fracking Threatens North Carolina!" *Resources*. Clean Water for North Carolina, 12 June 2013. Web. Accessed 23 June 2013. <<http://www.cwfnc.org/documents/Fracking-Threatens-NC-updated-6-12-2013.pdf>>. Page 1.

² Steingraber, Sandra. "The Fracking of Rachel Carson : *Silent Spring*'s Lost Legacy, Told in Fifty Parts." *Orion Magazine*. Sep/Oct 2012. Web. Accessed 23 June 2013. <<http://www.orionmagazine.org/index.php/articles/article/7005>>.

³ Ibid.

of fracking upon climate change have been scarcely touched upon in the pushback against fracking in North Carolina. Fracking is so dire a threat, though, that it must be dismantled from all angles. NC WARN has the opportunity to make the portfolio against fracking even more robust by linking fracking to the continuous burning of fossil fuels that threatens the stability of the climate. Incorporating anti-fracking efforts into local and statewide climate justice efforts may allow more solidarity work with communities and establish connections between climate change and North Carolinians' daily lives.

NC WARN has long recognized that Duke Energy's utility monopoly threatens clean energy development in North Carolina and that Duke's replacement of coal with natural gas threatens to "lock in" climate destabilization.⁴ Solidifying the connection between the practice of fracking (not just the fuel source of natural gas) and Duke's monopoly over North Carolina, however, is much needed. Therein, this report also intends to demonstrate Duke Energy's reliance on hydraulic fracturing to supply its ever-increasing consumption of natural gas. Behind the scenes, Duke is a heavy proponent of fracking.

Finally, this report corresponds with NC WARN's mission to confront "the accelerating crisis posed by climate change" and promote a "transition to energy efficiency and clean power generation" by questioning the basis on which fracking is promoted in North Carolina.⁵ By exposing the falsehood that natural gas is a clean-burning fuel that will lessen climate change and demonstrating that fracking actually compounds the climate crisis, this report seeks to systematically establish that there is no basis for hydraulic fracturing in North Carolina.

FINDINGS

Fracking and climate change

Though natural gas is often touted as a "bridge fuel" (a supposedly necessary step between oil/coal and renewables), natural gas remains a fossil fuel that must be extracted from

⁴ Runkle, John, and Jim Warren. "A Responsible Energy Future for North Carolina : An Alternative to the Duke Energy-Progress Energy Plans for the Crucial Years 2013-2032." *Two Reports Published*. NC WARN: Waste Awareness and Reduction Network, 08 February 2013. Web. Accessed 23 July 2013. <<http://www.ncwarn.org/wp-content/uploads/2013/03/Responsible-Energy-Future.pdf>>. Page 3.

⁵ NC WARN. "Mission." *About Us*. NC WARN: Waste Awareness and Reduction Network, [date last modified]. Web. Accessed 24 July 2013. <<http://www.ncwarn.org/about-us/mission/>>.

A 2011 report by Cornell University scientists found that shale gas from hydraulic fracturing has a heavier impact on the climate than coal, largely due to the methane released during the fracking process.¹² Because methane escapes into the atmosphere through venting and leakages during the fracking process, a minimum of 30 and possibly upwards of 50 percent more methane is released through fracking than through conventional gas production.¹³ Because of methane's potency, this level of release causes huge impacts upon the climate. Over a twenty (20)-year timeframe, "the footprint of shale gas is at least 20% greater and perhaps more than twice as great" as coal.¹⁴ Fracking, therefore, carries the potential to cause massive global warming.

In North Carolina, climate change is expected to have severe impacts on landscapes, ecosystems, economies, and public health. The Natural Resources Defense Council (NRDC) estimates that global warming will cause "twice as many bad air days" in Asheville and Raleigh due to higher levels of ozone pollution and other air pollutants.¹⁵ Climate change is also expected to cause heat waves, surges of infectious diseases, drought, flooding, and other extreme weather.¹⁶ Along North Carolina's coast, the sea level has already risen one foot since the 1930s.¹⁷ Based on current research, the ocean could rise another 5.3 feet by 2100.¹⁸ In fact, North Carolina is at a sea level-rise "hotspot," where the sea is rising three times faster than the global average.¹⁹ Such a drastic rise would have a harsh impact upon North Carolina's coastal economy, and could spell evacuations and other such crises as oceans rise and storms worsen.

With shale gas so large a player in global climate destabilization, fracking in the Triassic Basin of North Carolina would only compound the problem of global warming (not to mention

¹² Horwath, Robert W., Renee Santoro, and Anthony Ingraffea. "Methane and the Greenhouse-Gas Footprint of Natural Gas from Shale Formations." *Letter*. Cornell University, 13 March 2011. Web. Accessed 05 August 2013. <<http://www.eeb.cornell.edu/howarth/Howarth%20et%20al%20%202011.pdf>>. Page 1.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Natural Resources Defense Council. "Climate Change Health Threats in North Carolina." *Climate Change Threatens Health*. Natural Resources Defense Council (NRDC), [date last modified]. Web. Accessed 05 August 2013. <<http://www.nrdc.org/health/climate/nc.asp>>.

¹⁶ Ibid.

¹⁷ State Climate Office of North Carolina. "Climate Change in North Carolina." *Aspects of NC Climate*. NC State University, 03 September 2009. Web. Accessed 05 August 2013. <http://www.nc-climate.ncsu.edu/climate/climate_change>.

¹⁸ Main, Douglas. "North Carolina Sea Level Rise Accelerating, Researchers Report." *The Huffington Post*. 08 November 2012. Web. Accessed 05 August 2013. <http://www.huffingtonpost.com/2012/11/08/north-carolina-sea-level-_n_2095100.html>.

¹⁹ Ibid.

pollution, water contamination, and issues of environmental injustice). Though shale gas deposits in North Carolina are relatively small, their impact on climate change must not be underestimated should fracking occur. Any victory against fracking in the Tar Heel State is not only a victory for public health, safe drinking water, and those local communities that would bear the brunt of fracking, but a victory for the climate as well.

Duke Energy: Fracking Pusher

Duke Energy currently stands as the largest publicly-traded energy utility in the world.²⁰ Not only that, but in North Carolina, Duke has a monopoly over energy production and uses its political muscle to strangle clean energy.²¹ Headquartered in Charlotte, Duke has a powerful local presence in the state—and so energy decisions Duke makes in North Carolina have a ripple effect across the globe. Therefore, any interest in fracking on the part of Duke Energy could have profound impacts on the natural gas drilling process across the United States. Moreover, Duke's commitment to burning fossil fuels threatens to entrench North Carolina in an economy of climate destruction. NC WARN's history of challenging Duke Energy promises to come in handy in the pushback against fracking in North Carolina and in ongoing efforts to mitigate climate change. Already, Duke's increasing consumption of natural gas exposes the company's keen interest in the fracking process. The research provided in this report suggests that Duke acts like a puppeteer in the global drive for hydraulic fracturing, staying backstage but all the while ensuring that enormous supplies of natural gas make it into its hands.

Duke's 2013 Integrated Resource Plan (IRP) shows that, in the 20-year period between 2013 and 2032, Duke plans on increasing its natural gas capacity from 18% to 29%.²² Because Duke also plans on increasing its total energy capacity during this timeframe, the energy giant's natural gas consumption leaps from 3,259 MW today to 7,512 MW in 2032.²³ In total capacity, this more than doubles Duke's intake of natural gas. Such a drastic increase demonstrates an

²⁰ Scanzoni, Dave. "Duke Energy Intends to be 'Agile and Innovative,' CEO Rogers Tells Shareholders." *Our Company*. Duke Energy, 02 May 2013. Web. Accessed 05 August 2013. <<http://www.duke-energy.com/news/releases/2013050202.asp>>.

²¹ Moorefield, Anna, and Jim Warren. "Combined Heat and Power in North Carolina : Replacing Large Power Plants by Putting Wasted Energy to Work." *Reports and Publications*. NC WARN, 04 February 2013. Web. Accessed 05 August 2013. <<http://www.ncwarn.org/wp-content/uploads/2013/02/CHP-Report-FINAL.pdf>>. Page 4.

²² Runkle and Warren. "A Responsible Energy Future," p. 18.

²³ Based on calculations from Runkle and Warren, "A Responsible Energy Future," pp. 17-18.

increased reliance on natural gas and, indeed, implies a dependency on hydraulic fracturing, without which such an increase in natural gas would be impossible.²⁴

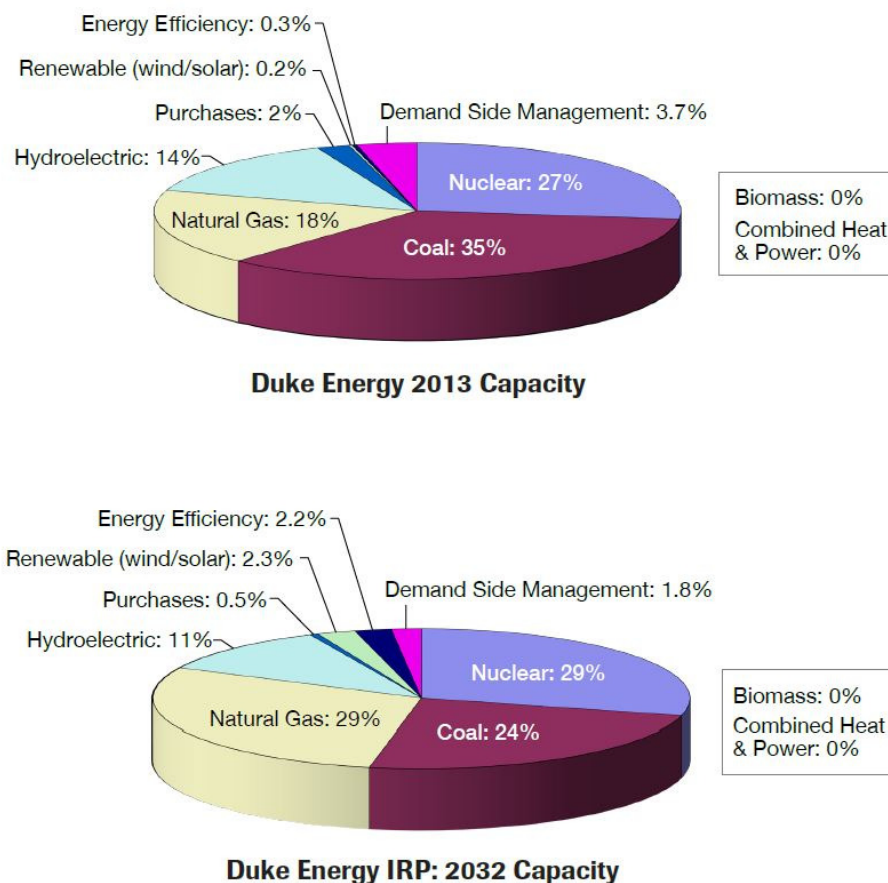


Figure 2. Duke's 20-year plan shows a leap from 18 to 29 percent natural gas capacity.²⁵

Duke has publicly stated that “[a]dding new natural gas generation is part of Duke Energy’s strategy to maintain a diverse fuel portfolio,” entrenching the company’s reliance on yet another fossil fuel.²⁶ Duke has installed five natural gas plants in North Carolina just within

²⁴ At a time when most traditional methods of extracting natural gas are stagnating or declining, shale gas production (through fracking) is drastically increasing. By 2032 (the end of Duke’s 20-year IRP), fracked gas is projected to make up approximately 50% of all gas produced in the United States (from about 35% today). For more information, see: U.S. Energy Information Administration, “U.S. Dry Natural Gas Production,” *Annual Energy Outlook 2013 Early Release*, 16 April 2013. Web. Accessed 24 July 2013. <http://www.eia.gov/energy_in_brief/article/about_shale_gas.cfm>.

²⁵ Runkle and Warren, “A Responsible Energy Future,” p. 18.

²⁶ Duke Energy. “New Natural Gas Generation.” *New Generation*. Duke Energy Corporation, [date last modified]. Web. Accessed 24 July 2013. <<http://www.duke-energy.com/about-us/natural-gas.asp>>.

the past two years (2011-2013), with zero plants running before 2011.²⁷ The leap from zero to five plants within two years shows the voraciousness with which Duke plans on consuming natural gas.

Duke's projected energy future for North Carolina, therefore, is shaped largely around fracking. Indeed, a 2012 study by the group North Carolina Voters for Clean Elections (NCVCE) identified Duke and Progress Energy as "two of the primary benefactors" of North Carolina's Energy Jobs Act (Senate Bill 709),²⁸ a 2011 bill designed to bring North Carolina closer to permitting fracking.²⁹ NCVCE estimates that Duke and Progress, the largest two Political Action Committees (PACs) spending money on energy issues in North Carolina, spent a total of \$463,350 in campaign contributions to the N.C. General Assembly between 2009 and 2011.³⁰ Based on their political contributions, Duke's interest in passing pro-fracking bills is readily apparent.

Duke's interest in the fracking process stems beyond burning natural gas for their power plants, however. According to a 2012 Forbes report, Duke "operates in purchase, transmission and sale of natural gas," implying that the corporation's involvement in gas production is much deeper and more nuanced than merely lighting up the gas in their power plants.³¹ Another report by corporate analysis company Trefis lists Duke as owning "natural gas distribution services in Ohio and Kentucky."³² In addition, Spectra Energy, a Duke Energy spin-off, operates in the

²⁷ These plants are the Buck Combined Cycle Plant, the Dan River Combined Cycle Plant, the H.F. Lee Combined Cycle Plant, the Smith Plant, and the Sutton Plant. For more information, see: Duke Energy. "Project Overview." *New Natural Gas Generation*. Duke Energy Corporation, [date last modified]. Web. Accessed 24 July 2013. <<http://www.duke-energy.com/about-us/natural-gas-overview.asp>>.

²⁸ Kromm, Melissa Price. "Power Politics : Fracking Debate Fuels Campaign Gifts to N.C. Lawmakers from Energy Interests." *Research & Publications*. North Carolina Voters for Clean Elections, 24 May 2012. Web. Accessed 24 July 2013. <http://www.ncvce.org/sites/ncvce.org/files/NCVCE%20Fracking%20Report%202012%20wo%20press%20release_0.pdf>. Page 1.

²⁹ Ryan, Shane. "UPDATED: N.C. Lawmakers to Tackle Redistricting, Veto Overrides in February. Maybe." *Carolina Public Press*, 12 December 2012. Web. Accessed 24 July 2013. <<http://www.carolinapublicpress.org/7890/n-c-lawmakers-to-tackle-redistricting-veto-overrides-in-february-maybe>>.

³⁰ Based on calculations from Kromm, "Power Politics," pp. 2, 4.

³¹ Trefis Team. "Duke's Renewable Energy Push : A Big Bet On Future Demand." *Forbes*, 12 April 2012. Web. Accessed 24 July 2013. <<http://www.forbes.com/sites/greatspeculations/2012/04/12/dukes-renewable-energy-push-a-big-bet-on-future-demand/>>.

³² Trefis. "Analysis for Duke." *Duke Overview*. Trefis, 07 May 2013. Print. Accessed 24 July 2013. Available at <<http://www.trefis.com/company?hm=DUK.trefis#>>.

“transmission and storage, distribution, and gathering and processing” of natural gas.³³ Spectra is highly involved in fracking interests, and has come under fire for its infamous “Spectra Pipeline” in New York City.³⁴ Duke has interest (both literal and figurative) in a complicated web of natural gas infrastructure that lies at the core of the fracking process.

Duke’s venture into the “gathering and processing” of natural gas allegedly began in March 2000 through a partnership with multinational oil and energy giant ConocoPhillips.³⁵ By September of that year, Duke publicly stated that it had transformed its “pipeline system focus” around natural gas into “a concentrated ownership effort in high-growth Eastern markets.”³⁶ Demonstrating its zeal for building natural gas pipelines, Duke completed the nearly-500-mile Eastern Gas Pipeline in Australia by August 2000.³⁷ In addition to overseas markets, Duke planned and developed the 674-mile Buccaneer Gas Pipeline, which extends across the Gulf of Mexico and into Florida, with natural gas giant Williams Companies.³⁸ All around the turn of the century, Duke was expanding its natural gas holdings in the Gulf of Mexico, purchasing natural gas processing plants and gathering systems from Canadian energy giant TransCanada, and securing its place as “one of the nation’s largest natural gas gatherers.”³⁹ (At this time, Duke also claimed to be “the largest producer of natural gas liquids and one of the largest NGL marketers [in the United States].”)⁴⁰ Such an acute interest in “gathering” natural gas implies that Duke would bank on processes such as fracking to expand the extraction of natural gas in the United States and elsewhere.

Despite packaging much of its natural gas infrastructure projects into the spinoff of Spectra Energy, it is through Spectra that Duke maintains a heavy interest in the fracking process. “For close to a century,” reads one report, “Spectra and its corporate predecessor

³³ Krueger, Gretchen. “Duke Energy Gas Spin-Off To Be Named ‘Spectra Energy.’” *News Release*. Duke Energy, 30 October 2006. Web. Accessed 24 July 2013.

<http://investors.spectraenergy.com/phoenix.zhtml?c=204494&p=irol-newsArticle_pf&ID=932280&highlight=>.

³⁴ Stuart, Hunter. “Spectra Pipeline, Natural Gas Delivery System For New York City, Has Activists Up In Arms.” *The Huffington Post*, 03 May 2013. Web. Accessed 24 July 2013.

<http://www.huffingtonpost.com/2013/05/03/spectra-pipeline-fracking-new-york-city-activists_n_3209242.html>.

³⁵ DCP Midstream. “Our History.” *About Us*. DCP Midstream, [date last modified]. Web. Accessed 24 July 2013.

<<https://www.dcpmidstream.com/aboutus/pages/ourhistory.aspx>>.

³⁶ Priory, Rick. “Duke Energy’s Viewpoint on Gas Infrastructure.” *Our Company*. Duke Energy, 12 September 2000. Web. Accessed 29 July 2013. <<http://www.duke-energy.com/about-us/20000912-infrastructure-viewpoint.asp>>.

³⁷ *Ibid*.

³⁸ *Ibid*.

³⁹ *Ibid*.

⁴⁰ *Ibid*.

companies”—think Duke—“have developed critically important pipelines, storage and related energy infrastructure that connect natural gas sources to premium markets and customers.”⁴¹ By shoring up vast infrastructure projects, Duke—through Spectra—came to dominate crucial aspects of the natural gas market today. In addition, many of Spectra’s executives came directly from Duke.⁴² Spectra Energy’s domination of the natural gas market could not be possible without Duke.

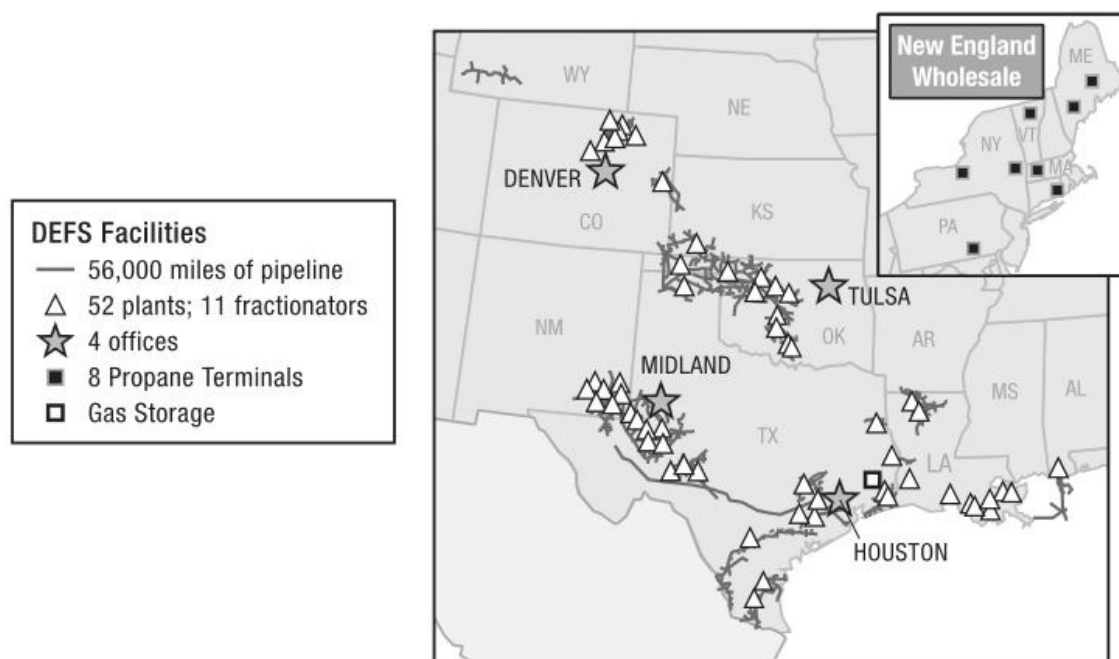


Figure 3. Duke Energy Field Service’s (DEFS’s) natural gas resources and pipelines in the Midwest and Gulf Coast regions.⁴³

Before packaging most of its natural gas services into the Spectra Energy spin-off, Duke spent millions on natural gas pipelines, service stations, and other infrastructure.

Today, Duke Energy Field Services (DEFS)—part of Duke’s former natural gas network—has become DCP Midstream,⁴⁴ a company that prides itself on being “the second-

⁴¹ King, Byron. “Energy Infrastructure : A Pipe Dream Come True : Spectra Energy Corp.” *Whiskey and Gunpowder : The Independent Investor’s Daily Guide to Gold, Commodities, Profits and Freedom*. Agora Financial, 26 October 2010. Web. Accessed 29 July 2013. <<http://whiskeyandgunpowder.com/free-reports/investing-in-energy-infrastructure/>>.

⁴² Ibid.

⁴³ Anderson, Paul M., James E. Rogers and Fred J. Fowler. “Information Statement : Distribution of Common Stock of Spectra Energy Corp by Duke Energy Corporation.” *Spectra Energy Information*. Duke Energy, 14 December 2006. Web. Accessed 29 July 2013. <http://www.duke-energy.com/pdfs/information_statement.pdf>. Page 161.

⁴⁴ Ibid., p. 1.

largest natural gas gatherer and producer” in North America.⁴⁵ “DCP” stands for “Duke-ConocoPhillips,” a reference to the original partnership that brought about the corporation’s foray into natural gas production and services.⁴⁶ DCP Midstream’s Tom O’Connor, who is the current CEO, chairman of the board, and president, came directly from Duke, where he was CEO of the Duke Energy Gas Transmission division.⁴⁷

Though DCP Midstream does not directly own or operate fracking rigs, its practice in the “midstream” of the natural gas sector—the gathering and processing of natural gas—allows it to capitalize on fracking operations.⁴⁸ Midstream operations become a fundamental step between the process of fracking and the distribution of natural gas. In fact, a DCP Midstream executive stated blatantly that “we do benefit from” hydraulic fracturing and horizontal drilling because of “the need to site and operate new infrastructure...to clean and process [natural gas] for [its] intended end use.”⁴⁹ DCP’s clear motives in the natural gas market stem directly from Duke, without which DCP would have never been conceived.

Because Duke’s existing natural gas infrastructure can be utilized for fracked natural gas, Duke’s heavy investments in natural gas come at the obvious benefit of the fracking industry. Duke will likely see increased profits from the expansion of fracking, as its increased demand for natural gas will bring with it the increased use of natural gas infrastructure. For Duke, fracking is seen as a means to ensure an increased supply of natural gas; fracking therefore helps Duke secure its foothold in the energy market. After all, Duke would not invest so heavily in the production and maintenance of natural gas plants in North Carolina if it did not expect to profit from them—or to have a steady supply of gas to burn.

⁴⁵ Beck, Emmadell. “Fast Facts About the DCP Midstream Enterprise.” *About Us*. DCP Midstream, 22 April 2013. Web. Accessed 29 July 2013. <<https://www.dcpmidstream.com/pdf/DCP%20Midstream%20Fact%20Sheet.pdf>>.

⁴⁶ Elliott, Roz. “Duke Energy Field Services Announces New Name: DCP Midstream.” *News Release*. Duke Energy, 06 October 2006. Web. Accessed 29 July 2013. <<http://www.duke-energy.com/news/releases/2006/oct/2006100601.asp>>.

⁴⁷ Lane, S. R. “Tom O’Connor.” *Executive Profile*. DCP Midstream, 22 January 2012. Web. Accessed 30 July 2013. <https://www.dcpmidstream.com/pdf/Bio_O%27Connor-jan12.pdf>.

⁴⁸ Tourangeau, Paul R. “Natural Gas Development, Including Hydraulic Fracturing (‘Fracking’) and Horizontal Drilling.” *Hot Topics in Energy and Environmental Law*. American Bar Association. 03 July 2013. Web. Accessed 30 July 2013. <http://www.americanbar.org/content/dam/aba/administrative/litigation/materials/aba-annual-2013/written_materials/10_1_natural_gas.authcheckdam.pdf>. Page 2.

⁴⁹ *Ibid.*



Figure 4. A map of Spectra Energy’s natural gas pipelines in the eastern United States; these pipelines formerly belonged to Duke. While the Texas Eastern distribution system is highlighted, Spectra also controls the Gulfstream, East Tennessee, Algonquin, and Maritimes & Northeast transmission systems—all formerly owned by Duke.⁵⁰

In North Carolina itself, Duke has an intimate relationship with Piedmont Natural Gas. In May 2013, Piedmont completed a 128-mile natural gas pipeline to Duke’s new Sutton plant near Wilmington.⁵¹ Piedmont also services Duke’s Dan River plant.⁵² In addition, Piedmont has contracts for Duke’s other natural gas plants and looks to be solidifying control over the natural gas market in North Carolina.⁵³ What’s more, though, is that Duke’s natural gas supplier is openly committed to fracking. “We support...the hydraulic fracturing process,” the company states on its website. Claiming that fracking is “sustainable and responsible,” Piedmont goes on

⁵⁰ Anderson et al., “Information Statement,” p. 152.

⁵¹ Downey, John. “Piedmont Natural Gas Completes \$200M Gas Pipeline.” *Charlotte Business Journal : Power City*. American City Business Journals, 31 May 2013. Web. Accessed 30 July 2013. <http://www.bizjournals.com/charlotte/blog/power_city/2013/05/piedmont-natural-gas-completes-200m.html>.

⁵² Piedmont Natural Gas. “Pipeline Project Serving Duke Energy’s Dan River Power Plant.” *Pipeline Projects*. Piedmont Natural Gas, [date last modified]. Web. Accessed 30 July 2013. <<http://www.piedmontng.com/about/pipelineprojects/danriver.aspx>>.

⁵³ Downey, John. “Piedmont Natural Gas Eyes Payoff from Pipelines, Shale.” *Charlotte Business Journal*. American City Business Journals, 11 January 2013. Web. Accessed 30 July 2013. <<http://www.bizjournals.com/charlotte/print-edition/2013/01/11/piedmont-eyes-payoff-from-pipelines.html?page=all>>.

to assert that “hydraulic fracturing offers tremendous benefits to our customers and to the economy in general.”⁵⁴ Consummating its marriage to fracking, Piedmont has signed a fifteen (15)-year contract to obtain a “meaningful portion” of its natural gas supplies from Pennsylvania’s Marcellus Shale, one of the most heavily-fracked regions in the country.⁵⁵ Piedmont is also investing heavily in shale gas: the company recently poured \$180 million into the Constitution Pipeline, which would move fracked gas from Pennsylvania to New England and New York.⁵⁶ With Duke’s natural gas supplier openly endorsing fracking, Duke’s own interests become clear: its new natural gas plants will demand an enormous amount of gas, and fracking is the best way to supply that gas.⁵⁷

Several of Duke’s Board members have come out in support of fracking, or are involved with companies heavily invested in the fracking industry.⁵⁸ Daniel E. DiMicco, CEO of Nucor Steel Corporation and director at Duke, told the Wall Street Journal that the United States should “embrace what’s happening in natural gas.”⁵⁹ His company, Nucor, also signed a partnership with fracking company Encana Corporation so as to drill for its own gas.⁶⁰ Ann Maynard Gray, recently elected as Chair of the Board at Duke,⁶¹ has also served on the board of Panhandle Energy, which styles itself “America’s natural gas transportation company” and “operates one of

⁵⁴ Piedmont Natural Gas. “Hydraulic Fracturing: A Natural Gas Distributor’s Perspective.” *Public Awareness and Safety*. Piedmont Natural Gas, [date last modified]. Web. Accessed 30 July 2013.

<<http://www.piedmontng.com/about/awarenessandsafety/hydraulicfracturing/home.aspx>>.

⁵⁵ Downey, “Piedmont Natural Gas Eyes Payoff.”

⁵⁶ *Ibid.*

⁵⁷ However, it should be noted that long-term agreements to import natural gas from the Marcellus Shale likely depress the demand for fracking locally in North Carolina. For more information, see: Murawski, John. “Pipeline Expansions Could Leave NC Awash in Shale Gas.” *News & Observer* [Raleigh, NC], 16 March 2013. Web. Accessed 30 July 2013. <<http://www.newsobserver.com/2013/03/16/2752876/pipeline-expansions-could-leave.html>>.

⁵⁸ Information on Duke’s Board of Directors can be seen here: Rogers, James E. et al. “2012 Annual Report and Form 10-K.” *Annual Reports & Proxies*. Duke Energy, 21 March 2013. Web. Accessed 29 July 2013. <<http://www.duke-energy.com/pdfs/Annual-Report-2012.pdf>>. Page 12.

⁵⁹ Examiner Editorial. “Will ‘Fracking’ Enemies Stop Industrial Resistance?” *San Francisco Examiner*, 19 June 2011. Web. Accessed 31 July 2013. <<http://www.sfexaminer.com/sanfrancisco/will-fracking-enemies-stop-industrial-renaissance/Content?oid=2176822>>.

⁶⁰ Cramer, Jim. “Nucor’s DiMicco on Fracking and Nat Gas Exports.” *Crossroads: the Future of Energy*. CNBC, 29 May 2013. Web video. Accessed 01 August 2013. <<http://www.cnbc.com/id/100774472>>.

⁶¹ Williams, Tom. “Duke Energy Board Elects Gray as Chair, Good as Vice Chair.” *WMBB.com*. PR Newswire, 27 June 2013. Web. Accessed 01 August 2013. <<http://www.wmbb.com/story/22706994/duke-energy-board-elects-gray-as-chair-good-as-vice-chair>>.

the nation's largest interstate natural gas pipeline systems.”⁶² Philip R. Sharp, another board member at Duke, is president of Resources for the Future. The company, an “environmental economics” think-tank, is currently conducting a report “to improve the management of shale gas development.”⁶³

Duke is also a member of the American Legislative Exchange Council (ALEC), a corporate conglomerate and lobbying powerhouse that is a staunch supporter of fracking and has deep ties to the fossil fuel industry.⁶⁴ In a report called “How ALEC and Exxon Secretly Fracked North Carolina,” Greenpeace parses out ALEC’s connections to fracking bills in North Carolina and notes the corporate beneficiaries. According to the report, ALEC works to “allow Exxon, Shell, Duke Energy and other ALEC member companies to more quickly extract, pipe and burn gas.”⁶⁵ Many state legislators who sponsored fracking bills are members of ALEC.⁶⁶ ALEC, it should be noted, has a long record of denying climate change and rolling back environmental regulations—which plays well into the hands of Duke.⁶⁷ Because of ALEC’s less-than-discreet push for fracking, the money that Duke pays to the organization in membership fees often goes directly towards passing pro-fracking legislation. Member corporations set ALEC’s agenda—and so ALEC’s priorities could be seen as a reflection of Duke’s. It is through these types of corporate backroom deals that Duke sets its pro-fracking mindset into action.

⁶² Barnett, John P. “Panhandle Eastern Corporation Names Ann Maynard Gray to Board of Directors.” *The Free Library*. PR Newswire, 27 April 1994. Web. Accessed 01 August 2013. <<http://www.thefreelibrary.com/PANHANDLE+EASTERN+CORPORATION+NAMES+ANN+MAYNARD+GRAY+TO+BOARD+OF...-a015176999>>.

⁶³ Krupnick, Alan, and Kristin Hayes. “Managing the Risks of Shale Gas : Identifying a Pathway toward Responsible Development.” *Center for Energy Economics and Policy (CEEP)*. Resources for the Future, 17 October 2012. Web. Accessed 01 August 2013. <http://www.rff.org/centers/energy_economics_and_policy/Documents/managing_the_risks_of_shale_gas.pdf>.

⁶⁴ Gibson, Connor. “Duke Energy Flip-Flop: ALEC Leads Attack on North Carolina Clean Energy with Duke Funding.” *Nation of Change*, 15 January 2013. Web. Accessed 05 August 2013. <<http://www.nationofchange.org/duke-energy-flip-flop-alec-leads-attack-north-carolina-clean-energy-duke-funding-1358266116>>.

⁶⁵ Gibson, Connor. “How ALEC and Exxon Secretly Fracked North Carolina.” *PolluterWatch*. Greenpeace, 17 July 2013. Web. Accessed 05 August 2013. <<http://www.polluterwatch.com/blog/how-alec-and-exxon-secretly-fracked-north-carolina>>.

⁶⁶ Ibid.

⁶⁷ Gibson, “Duke Energy Flip-Flop.”

Other connections between Duke Energy and natural gas operations and/or fracking processes include the following:

- Through a wholly-owned subsidiary known as International Energy, Duke “engages in sales and marketing of...natural gas” outside of the United States. Natural gas is one of the primary concerns of International Energy.⁶⁸
- Five (5) lawsuits, currently pending, have been filed against Duke Energy alleging “manipulation of the natural gas markets by various means, including providing false information to natural gas trade publications and entering into unlawful arrangements and agreements in violation of the antitrust laws of the respective states.”⁶⁹
- A 2013 Bloomberg report claims that Duke Energy stands to benefit from legislation in sixteen (16) states, including North Carolina, that would “reduce the need for wind and solar power” because such legislation would inherently promote the use of natural gas and hydraulic fracturing.⁷⁰
- Duke’s safety record has also been tarnished by an explosion at an underground natural gas facility in Texas that led to the evacuation of hundreds of nearby residents.⁷¹ The explosion, which occurred in 2004, happened before Duke transferred this natural gas facility to Spectra Energy.

Though hidden from mainstream view, Duke’s prevailing attitude towards energy development supports the procurement of natural gas in any form. The intricacies of Duke’s monetary insatiability and its desire to control energy markets betrays a heavy interest in hydraulic fracturing. In North Carolina, state legislators’ push for fracking is likely to benefit Duke through an increased supply in natural gas and an increased reliance on gas infrastructure. Duke’s new natural gas power plants are its commitment to fracking made manifest; the facilities are like empty stomachs waiting to be filled. These facilities promise the consumption of any natural gas produced in North Carolina.

⁶⁸ Rogers et al. “2012 Annual Report,” p. 124.

⁶⁹ Ibid., p. 146.

⁷⁰ Martin, Christopher. “U.S. States Turn Against Renewable Energy as Gas Plunges.” *Bloomberg*, 23 April 2013. Web. Accessed 29 July 2013. <<http://www.bloomberg.com/news/2013-04-23/u-s-states-turn-against-renewable-energy-as-gas-plunges.html>>.

⁷¹ Stuart, “Spectra Pipeline.”

Behind the scenes, Duke maintains fierce control over many aspects of the fracking process. It holds a heavy grip on the North Carolina General Assembly and on the Governor's Office.⁷² Through its monopoly power over the North Carolina energy market, it forces a transition to natural gas—and therefore an increased supply of gas through fracking. Consumers' voices are robbed from them. Duke Energy has been, and remains, a major player in the international push for fracking—and the monolithic energy company stands to benefit from fracking in North Carolina. If fracking is approved in North Carolina, not only will Duke benefit from an increased supply of natural gas (as the people of North Carolina suffer), but Duke will have grasped even more control over North Carolinian politics and, indeed, the land itself. Stopping fracking, then, is key to curbing Duke Energy's monopoly over North Carolina.

The State of Fracking in North Carolina

Thankfully, a series of bills that would have opened the gateway for fracking failed to pass in the North Carolina General Assembly's 2013 session.⁷³ However, state legislators look to keep pushing for fracking. Governor McCrory himself has stated that “[w]e’re going to keep fighting for energy.”⁷⁴ In the state of such a monumental push for fracking within the past few years, fracking legislation is unlikely to disappear any time soon.

Already, legislation passed in July 2012 (Senate Bill 820) has legalized fracking in North Carolina.⁷⁵ This legislation also set up a Mining and Energy Commission, allegedly for the purpose of regulating fracking; and it “allows ‘forced pooling’ of land.”⁷⁶ At the moment, however, fracking permits are not being issued and regulations have not been finalized.

Multiple grassroots groups have been working for several years to stop fracking in North Carolina. Before developing natural gas was even on the agenda of the state government, Clean Water for North Carolina (CWFNC) took to the road and began showing the movie *Gasland*—Josh Fox's film chronicling fracking's effects on water quality and human life—at venues across

⁷² Governor Pat McCrory (R), elected in 2012, is a former employee of Duke Energy, and owns an estimated \$10,000 in Duke Energy stock. For more information, see: Sprinkle, Jeremy. “Pat McCrory, Governor (R-Duke Energy)?” *News*. NC State AFL-CIO, 22 February 2013. Web. Accessed 30 July 2013. <<http://aflcionc.org/pat-mccrory-governor-r-duke-energy/>>.

⁷³ Sturgis, Sue. “NC Legislature Slows Fracking Rush, Renews Push for Offshore Drilling.” *Facing South*. The Institute for Southern Studies, 29 July 2013. Web. Accessed 05 August 2013. <<http://www.southernstudies.org/2013/07/nc-legislature-slows-fracking-rush-renews-push-for.html>>.

⁷⁴ *Ibid.*

⁷⁵ Taylor et al., “Fracking Threatens North Carolina!”, p. 1.

⁷⁶ *Ibid.*

the state.^{77, 78} As the state government introduced fracking legislation, CWFNC already had a head-start on raising awareness among North Carolinians.

Today, a broad coalition of anti-fracking groups have come together under the umbrella organization “Frack Free NC.” Some of the more prominent partners include CWFNC, the Catawba Riverkeeper, Environment North Carolina, Food and Water Watch (FWW), and No Fracking in Stokes.⁷⁹ The group holds weekly calls, delivers petitions, lobbies elected representatives, and performs outreach to inform North Carolinians about the dangers of fracking.⁸⁰

Frack Free NC, along with thousands of concerned citizens across the state, played a very active role in the recent defeat of fracking bills in the legislature. Harnessing grassroots organizing power continues to be key in North Carolinians’ pushback against fracking.

CONCLUSIONS

Fracking, should it occur, is bound to have profound impacts upon the people of North Carolina. Duke’s role in promoting fracking and compounding the already-apparent effects of global warming cannot be understated. As climate change is already raising North Carolina’s coastlines, causing drought and severe storms, and imperiling the state’s diverse ecosystems, the need to live with the land—instead of dominate it—could not be more urgent. Sadly, both the process of fracking and Duke Energy itself promote a philosophy of extraction that is antithetical to the needs of the people of North Carolina.

In entwining fracking into the larger narrative of climate change and Duke Energy’s utility operations, it is readily apparent that all three factors are intimately interwoven. North Carolina, Duke’s home state, also happens to be facing a massive fracking push. That Duke’s merger with Progress Energy and the General Assembly’s fracking fervor coincided seem hardly coincidence: in fact, these developments present North Carolinians unparalleled opportunities to expose that shackles of dirty energy that constrain their state. Challenging Duke Energy will also challenge fracking, and likewise banning fracking would present a serious blow to Duke’s

⁷⁷ Taylor, Hope. Personal interview. 27 June 2013.

⁷⁸ Lasseter, Jodi. Personal interview. 19 June 2013.

⁷⁹ Frack Free NC. “Partners.” *Frackfreenc.org*. Frack Free NC, [date last modified]. Web. Accessed 05 August 2013. <<http://frackfreenc.org/partners/>>.

⁸⁰ Lasseter and Taylor, personal interviews.

ambitions. When working to realize the true potential of clean energy, upending the fossil fuel industry's extractive mindset is a must.

Thankfully, North Carolinians are already forming communities that provide alternatives to Duke's extractive model.

As the fight against fracking continues, NC WARN has many opportunities for solidarity work with allied groups such as Clean Water for North Carolina (CWFNC), Food and Water Watch (FWW), Frack-Free NC, and others. Partnering with Frack-Free NC would allow NC WARN's expertise in confronting Duke to come to the fore of the anti-fracking fight. NC WARN would also benefit from a clear and developed stance against fracking.

One immediate solidarity opportunity could be found in challenging Piedmont Natural Gas, Duke's partner, in its attempt to raise natural gas rates in 2013.⁸¹ The rate-raising symbolizes Piedmont's determination to charge citizens with the costs of building natural gas pipelines and transporting fracked gas.

The fight against Duke and fracking in North Carolina is really a campaign for human dignity and a commitment to promote more life.

⁸¹ Henderson, Bruce. "Piedmont Natural Gas Seeks 10.5 Percent Rate Hike." *The Charlotte Observer*, 31 May 2013. Web. Accessed 05 August 2013. <<http://www.charlotteobserver.com/2013/05/31/4077786/piedmont-natural-gas-finishes.html>>.

FRACKING RESOURCES

- **Clean Water for North Carolina (CWFNC)** maintains an excellent catalogue of fracking petitions, news, and resources here: <http://www.cwfnc.org/what-we-do/hydraulic-fracturing/>
- CWFNC also sends out “FrackUpdates” via email: <http://www.cwfnc.org/what-we-do/hydraulic-fracturing/frack-updates/>
- **Frack-Free NC** is an umbrella group of local organizations fighting fracking: <http://frackfreenc.org/>
- **Food and Water Watch (FWW)** is one of the most prominent national groups to be pushing for a full fracking ban: <http://www.foodandwaterwatch.org/water/fracking/>
- **Greenpeace** also works to oppose fracking: <http://www.greenpeace.org/usa/en/campaigns/global-warming-and-energy/The-Problem/fracking/>
- **Gasland** and **Gasland 2** are Josh Fox’s films documenting people’s personal stories of fracking’s impacts on their health and water: <http://www.gaslandthemovie.com/>

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