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Reflections on the Successful Movement to Stop the Atlantic Coast Pipeline

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Article History:

Received: 6 July 2025; Accepted: 31 July 2025; Published: 16 August 2025

Abstract

The Atlantic Coast Pipeline (ACP) project was the plan of Duke and Dominion Energy to run a 600-mile fracked-gas pipeline through West Virginia, Virginia and allegedly ending in North Carolina. Although the ACP had state and federal government support plus the backing of two huge corporations, it was opposed by various Indigenous tribes, environmentalists, farmers, and a wide range of community organization agencies, statewide and regional environmental groups, and environmental law firms. The wisest commentators predicted that the pipeline would achieve a successful completion, but to the shock of many stakeholders, Duke and Dominion Energy cancelled the ACP project on July 5, 2020. Within our research, we assess the pipeline's defeat and explain multiple factors that terminated this multibillion dollar project. This study demonstrates the use of both quantitative and qualitative research and analysis. The information derived from our analysis can be generalized and employed in: (1) establishing effective and successful opposition against expanding the use of fossil fuels; and (2) promoting environmental, energy, and climate concerns and the rapid shift needed to clean, renewable energy sources.

Keywords

geosocialpolitical, Duke Energy, Dominion Energy, environmental justice, climate justice, community-based organizing

Volume 12, 2025

Publisher: The Brooklyn Research and Publishing Institute, 442 Lorimer St, Brooklyn, NY 11206, United States.

DOI: 10.15640/ppar.vol12p1

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Citation: Marson, S. M., & Legerton, M. (2025). Reflections on the Successful Movement to Stop the Atlantic Coast Pipeline. *Public Policy and Administration Review*, *12*, 1-15. https://doi.org/10.15640/ppar.vol12p1

1. Introduction

In September 2013, the Obama Administration's Department of Energy approved a request from Dominion Energy to build a liquid natural gas facility in Maryland for export purposes. In May and June 2014, Dominion Energy officials briefed local officials in West Virginia on plans to construct what was originally called the "Southeast Reliability Project" (Hamill, 2014, May 6).

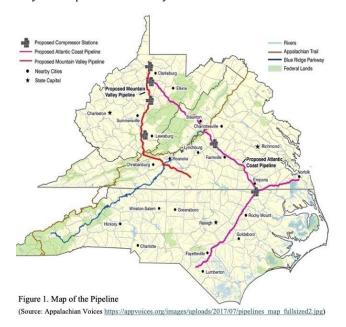
According to Marson and Legerton (2022), at the beginning of 2015, extraordinarily positive comments where disseminated by local and national mass media demonstrating the economic importance of this pipeline. Within this same analysis, the authors note that a small local newspaper¹ first identified the profound ecological damage that the pipeline would create.

As a consequence of the conflictual information generated by the national media versus local newspapers, individuals within the pipeline's pathway, combined with environmental groups, took interest in understanding the significance of the ACP. As the negative consequences of ACP surfaced, action against the existence the pipeline strengthened. Initially, those who opposed the pipeline thought that their efforts were futile. Nevertheless, widespread efforts across Virginia and North Carolina emerged to combat Duke and Dominion corporations. Many protesters and supporters experienced surprise and joy when the Atlantic Coast Pipeline was permanently halted in July 2020. The Atlantic Coast Pipeline is a David and Goliath story.

The question becomes, how was it possible for grassroots organizers and leaders from mostly poor rural, racially-diverse communities across three states to join with established state, regional, and national environmental and civil rights organizations and law firms to defeat two multi-billion dollar corporations? After years of collecting and analyzing data, the researchers have uncovered tipping points that identify how David was able to beat Goliath. Within this research, we unravel the various streams of diverse actions and offer a compelling framework that is applicable to other, major environmental protest movements.

2. What was the Atlantic Coast Pipeline?

The Atlantic Coast Pipeline (APC) was the brainchild of two multibillion dollar corporations – Dominion Energy and Duke Energy. The map of the 600-mile track of the pipeline is provided in Figure 1. The work of Board (2014, September 17) and NS Energy (2020) offers the most objective and comprehensive description of the Atlantic Coast Pipeline. Dominion Energy negotiated a 53% stake in the project with the remaining 47% held by Duke Energy. The primary purpose of the pipeline was to produce an abundance of "natural gas" for domestic and overseas sales. The route of the pipeline was surveyed and planned from May to December of 2014.



¹ The News Leader, a rural newspaper based in Staunton, Virgina.

The pipe was designed to be 42 inches in diameter and was projected to deliver 1.5 billion cubic of gas per day. The Federal Energy Regulatory Commission (FERC) approved the structure in the summer of 2016. In establishing the foundation and the rationale for this work, two prerequisites exist. First, the reader needs to have a basic understanding of "fracking" operations. Second, one needs to have a fundamental understanding of the geosocialpolitical² aspects of the Atlantic Coast Pipeline.

3.1. Literature Review, Part 1: Fracking

Smith (2014) reported that in the 1840s, a Reverend Clutterbuck opposed oil extraction on the basis of depleting the clean water supply. Clutterbuck's contemporary, an engineer, named Robert Stephenson scoffed at Clutterbuck's position that "water tables rise upward under hills." Decades later, 19th century geologist David Ansted demonstrated that Clutterbuck's position was correct. According to Denchak (2019), the methodology of fracking was accidently uncovered by Colonel Edward A. L. Roberts³ who observed an "exploding torpedo" which shattered surrounding rock. When water was pumped in, the oil volume increased. Within one of his experiments, oil flow increased by 1,200%. Soon after the war, Roberts received a patent on a fracking mechanism on April 25, 1865 (Nature America, Inc., 1866). The 10% increase of oil extraction was consistent.

Consumer Notice (2021, November 9) and Denchak (2019, April 19) provide a detailed explanation of contemporary fracking. Although highly polluting and controversial, fracking has significant support within the fossil fuel industry because it is the most cost-effective method of extracting oil and gas from the earth. It is a highly pressurized process by which a mixture of chemicals, sand and water are injected into shale deposits to force the release of both gas and oil. The wells can be drilled vertically or horizontally in order to release the gas. The term fracking refers to how the rock is fractured apart by the high-pressure mixture. As the result of the expanded use of hydraulic fracking, oil production increased by 75% between the years 2007 and 2016 in the United States.

3.2. Literature Review, Part 2: Geosocialpolitical

The heart of the geosocial political dimension of the Atlantic Coast Pipeline is founded in consequences involving the evidence of reversible and irreversible damage to individuals and the environment. Two undisputable consequences emerge from fracking. First, when natural resources are removed from below the sandstone strata (Figure 2), empty space is created. With time, the weight of the ground above will collapse. This is inevitable. Small empty space with create small sink holes while large empty spaces will create large sink holes. Fracking does not exist in Florida, but this state is routinely giving birth to sink holes. Are sink holes naturally occurring? Not really. In Florida, we see huge human population growth and an exponential need for water. Currently, municipalities are extracting water from the aquifer (Figure 2). This leaves huge empty spaces and huge sink holes. As demonstrated within our illustration, the aquifer is considerably closer to the earth's surface while the extraction of oil and gas is considerably farther from the earth's surface. The closer the empty cavity to the earth's surface, the quicker the consequences of a sink hole. The larger the empty cavity, the greater damage to the earth's surface.

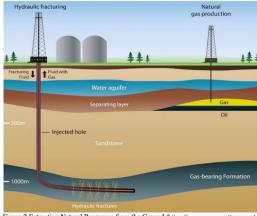


Figure 2 Extracting Natural Resources from the Ground (https://www.greenmatters.com)

² Authors' definition: Geosocialpolitical – individuals and/or groups from a wide-range geographic territory with diverse social and cultural differences who share a well-defined, common political outcome.

³ Evidence suggests that Colonel Roberts was discharged from the Union Army for cowardness.

The second consequence of fracking is pollution of the aquifer, and the deep ground water found in the shale (Figure 3). The chemical embedded water is pumped into deep regions of the earth to propel oil and gas to the surface. The pollution of the water is undisputed (Ferrer & Thurman, 2015; Hu, Mian, Hewage & Sadiq, 2019). The question becomes, how dangerous is the pollution and it is reversable or irreversible? Figure 3 illustrates two major points of leakage into the aquifer.

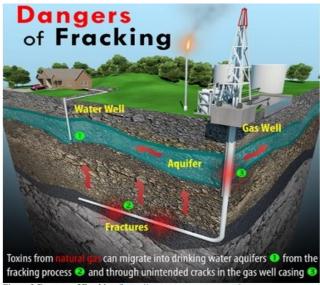


Figure 3 Dangers of Fracking (https://www.greenmatters.com)

First, the fractures are below the aquifer. The various explosions below the aquifer create a disturbance within the layers of shale above the area of gas and oil extraction. Pores are created within this chamber and the toxic contaminates are likely to be released into the pores then eventually but gradually escape into the aquifer. The natural mechanisms within the earth can filter some contamination (see point 2, Figure 3). However, constant, and unrelenting seepage defies the natural filtering process. Fracking on an industrial scale will eventually render the water to be undrinkable and in extreme cases unusable.

Second, the gas well pipe, as seen in point 3 (Figure 3), ascends through the aquifer to transport the oil or gas to the surface. A powerful pump is used to move gas and/or oil through the aquifer to the surface. Unlike the leakage from *under* the aquifer, the gas and oil at this location is highly concentrated and a tremendous amount of force is employed to move the products to the surface. If there is a leak or the pipe burst at point 3, the water in the aquifer has no or little chance of recovery.

3. Data Collection and Research Methodology

The assembly of this data began in September of 2013. From the data collection, a chronology of media presentations (technical and public newspapers, radio, YouTube videos, and TV news reports and documented litigation and court proceedings) was developed (Marson & Legerton, 2022). Although Google was employed as a data collection source, Google searches have serious limitations. As a result, our chronology employed databases found in academic and some public libraries. Many of these critical and recovered news items are accessible only in libraries and those who subscribe. Library sources employed included:

- NewspaperARCHIVE -- This resource provides an expansive collection of digitized North Carolina newspapers including rural newspapers such as the *Robesonian*. Every newspaper in the archive is fully searchable by keyword and date.
- Newspaper Source Plus -- A full-text digital collection of the world's major news content. It includes millions
 of articles from newspapers, newswires and news magazines. In addition, it offers television and radio
 transcripts and ongoing daily updates from popular news sources.
- ProQuest Central -- ProQuest Central is the largest single periodical resource available, bringing together
 complete databases across all major subject areas, and includes thousands of full-text newspapers from
 around the world, including peer-reviewed and scholarly works.

Library searches are far superior to online browser searches such as Google.

The nature of our research can best be described as qualitative. The systematic search for media items was limited to North Carolina. Between September 20, 2013 and July 8. 2022, 571 media items were discovered. Through the qualitative process of categorization, items were distributed among the following:

- Government Documents (includes court filings)
- Magazine Articles
- Manuscripts (unpublished)
- Newspaper
- Radio
- Scholarly Articles (mostly law journals)
- Television
- Trade Journals
- Undocumented
- Video (mostly YouTube)
- Web Page

Charts were designed to uncover patterns. When the variances were highly differentiated, z-score transformation was employed to place the data with a shared metric.

4. Analysis

From our analysis, five themes emerged which dominate our understanding of why opposition to the Atlantic Coast Pipeline was successful. These are: (1) wide-ranging, relentless, and proactive. community-based organizing and effective strategies. (2) media as a platform for litigation, (3) extensive litigation, (4) media coverage; and (5) media linked to litigation.

4.1. Wide-Ranging, Relentless, and Pro-active Community-based Organizing and Effective Strategies

The number one cause of the cancellation of the Atlantic Coast Pipeline was the extensive and sustained grassroots organizing efforts along the pipeline route. Two extensive research reports published in Virginia (Freeman, 2022) and in North Carolina (Marson & Legerton, 2022) provide 240 pages of events, actions, articles, reports, and decisions related to the ACP campaign. They are the first reports that begin to document the scope and scale of the ACP campaign and offer a foundation for further archival work. The "Commentary Section" in this paper highlights five major organizing lessons learned through the ACP campaign. These lessons are also drawn by Legerton (2022) that identifies eight lessons from the ACP Campaign and highlights the effective work of Indigenous, Black, and White organizers, leaders, and researchers who live in the communities directly impacted by the ACP. Additional publications relevant to the success of the ACP campaign include an analysis of 12 steps to effective and successful campaigns (Legerton, 2023) and Mingle (2024). In an opinion piece in the New York Times, Mingle (2024, May 13) also confirmed the significance and impact of grassroots organizing in the ACP Campaign by stating "faced with relentless grassroots opposition, Dominion and Duke finally abandoned it,"

4.2. Media as a Platform for Litigation

Perhaps the first profound and intriguing research finding related to the media is the work of Campa (2018). She demonstrates that there is a correlation between the number of influential newspapers and the proximity of pollution producing enterprises. The most profound aspect of her work is the scatter plot that she provides illustrating the amount of pollution and the distance from powerful newspapers. She unambiguously illustrates that human-made environmental hazards are highly *unlikely* to exist in proximity to powerful and influential newspapers. The concept of newspaper coverage and advocacy is an area in which greater investigation is required. We see a relationship between media coverage, newspapers in particular, and litigation opposing that proliferation of fracking and pipelines.

The two simultaneous and serendipitous actions of both media and litigation, fueled by and tied with community action are primarily responsible for the failure of the Atlantic Coast Pipeline. These three forms of public expression and influence are so intensely intertwined, it is difficult to conceptually separate them. Yet, in order to understand the dynamics of social change and to capitalize on this knowledge to assist other environmental and social causes, it is essential to analyze both community actions separately. These actions include a) litigation and b) media coverage.

4.3. Litigation

The first documented litigation opposing Atlantic Coast Pipeline occurred in 2015. Research from the North Carolina Justice Center estimates that there was a total of 82 cases litigated before the various courts. Several observations can be made that provide insight on exploiting court proceedings for the advancement of social change. Two critical court filings are notable. First, litigation progressed vertically through the court system. That is, litigations were in lower courts and appeals to higher courts were common. Many of the appeals were made by Dominion/Duke Energy. Some of the litigation moved upward to the United States Supreme Court.

Second, ligation also occurred horizontally. That is, simultaneously court cases were filed in different jurisdictions in at least two different state courts (Virginia and North Carolina) and within county courts within both states. Diverse litigation is expensive for protesters, but also expensive for Dominion and Duke Energy. Because protestors and advocates were litigating in their communities, they had greater insight into the temperament, case histories, and the legal traditions of the various courts. In some cases, the protestors and attorneys were knowledgeable about the history of a particular judge's and court's rulings.

The obvious inhibiting element of litigation is cost. Neither the defendants nor the plaintiffs have the funding for extensive court battles. However, between the defendants and the plaintiffs there is a notable and critical difference. The costs for Dominion/Duke (defendant) were centralized and funded by a *single* budget specifically set up for the anticipation of litigation. The cost for the plaintiffs were diversified and spread between Virginia and North Carolina. The expense is not only the cost of multiple litigations. The slow pace of the legal system means that more litigation means more time to hear an appeal all the various lawsuits. Amidst all the lawsuits against the ACP, Duke and Dominion Energy had to keep postponing the projected construction and completion dates while watching the cost of the pipeline double over six years.

Although expensive for the plaintiffs, the litigation costs were spent over a huge geographical area *and*, most importantly, funding was distributed throughout a wide variety of agencies and organizational budgets. The clear fact is that Dominion and Duke Energy's litigation budget could not handle the variety and diversity of various independent private nonprofit budgets. Essentially, we see one huge litigation budget against a series of smaller litigation budgets over a large geographical area, combining local, state, and national financial resources. Clearly, we see a geosocial political strategy. In addition, Dominion and Duke Energy had to answer to their stockholders, while the opposing protestors, advocates, and private nonprofit agencies had to answer to enthusiastic volunteers.

In a landmark legal case in North Carolina, Marvin Winstead, a farmer in Nash County, challenged the ACP's freedom to lay the pipeline across his farmland. The Atlantic Coast Pipeline was slated to come through a vital area of his farm. Winstead joined early in the campaign to halt the ACP. He was a founder and leader in "Nash County Against the Pipeline," a chapter of the Blue Ridge Environmental Defense League. As the ACP did with every landowner, they had planned to gain access to Winstead's farmland by using eminent domain to seize the right to cross his land and pay him what the court deemed was an acceptable price. Winstead sued the ACP, claiming that they should not be allowed to come on his land and construct the pipeline through his farm. Winstead refused to allow surveyors on his land. He had not agreed to a price and rejected the settlement to lease his land to the ACP. At the same time, Dominion and Duke were running out of time to cut down trees before the Spring and Summer when they were not allowed to cut due to the risk to bird migration. They had not filed for an extension with FERC. The court ruled in Winstead's favor. Winstead fought the threat of eminent domain and won. His "delay" tactics outlasted the pipeline.

4.4. Media Coverage

In terms of the Atlantic Coast Pipeline protests, two critical features emerge that involve media coverage. First, it is clear that newspapers are not the predominant outlet for obtaining news for the public. Small and local newspapers are rapidly disappearing. However, it is also clear that other media outlets follow the lead of these slowly disappearing newspapers and obtain news content from these same newspapers. For example, in a personal communication from Jamie Liddy, Chair of the Mass Communications Department with the University of North Carolina at Pembroke, she noted that while she was a news reporter at a public broadcasting radio station, newspapers were used as a source to obtain news stories for radio production. The literature also supports Liddy's observation (Harder, Sevenans & Aelst, 2017; Langer & Gruber, 2021).

Our observation of the patterns (Figure 4) found within media confirms the current literature and Liddy's observations. As expressed in Figure 4, it is clear that newspapers were the first to report on the Atlantic Coast Pipeline

(ACP). Based on our research of the media coverage of the ACP in North Carolina, between the years 2014 and 2016, individuals and organizations questioned the importance of the Atlantic Coast Pipeline and studied the value of it. During these years, the realization of the problematic nature of the ACP was crystallized. The knowledge acquired during this time period was used as a catalyst for generating news reports of local public actions which in turn were disseminated to newspapers. From 2016-2018, the rise of media reporting on the ACP corresponds to the rise of both legal action and community-based action and protests on the ground.

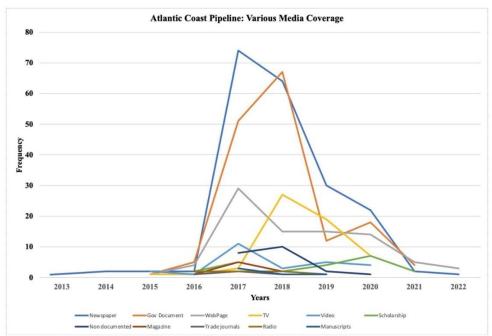


Figure 4 Media Patterns that Influence Political Action

The second most critical observation emerges from the seeming connection between newspaper reporting and governmental action. These governmental actions included court cases, departmental permit hearings and decisions, legislative committee reports, tribal decisions and reports, the minutes and reports of local governments and committees, etc. Governmental activity also reached its height between 2016-2018. It was during this period that other media outlets, including national media sources, began to disseminate positive and negative information regarding the Atlantic Coast Pipeline.

Acknowledgement of the Atlantic Coast Pipeline became a noteworthy discussion within the public sector. One may assume that stakeholders and decision-makers read the newspapers, but the general public did not. Community organizers and advocacy agencies/groups *must never* underestimate the influential power of the online and printed newspapers in generating information and advocacy for a political agenda. Thus, the material published in the newspapers is the prerequisite to getting information disseminated to the broader news media – both virtual and in print - from which the public receives information and focuses their attention.

Change agents must recognize the critical important nature of newspaper reports. For efforts of advocacy and social change, it becomes incumbent for the change agent to saturate newspapers with articles, editorials, letters, interviews and possibly advertisements. Few people will read newspapers articles. However, those who influence decision makers and those managing other media outlets will read the material published in newspapers. The key element is, decision-makers and those managing other media outlets will focus on repetitive articles focusing on different dimensions of a common social problem. Most importantly, other media outlets are most likely to exploit newspaper coverage.

The key elements of publication in newspapers are the quantity and singularity. In terms of quantity, the greater the quantity of material published in newspapers, the more likely decision-makers and governmental officials are to take the issue seriously. In terms of singularity, newspaper items should focus on the single issue. Newspaper articles that fail to focus on a single issue generate less influence than those that do (Vonbun, Königslöw & Schönbach, 2016). The partnership between quantity and singularity is a blessing. Newspapers are *more likely* to publish a wide variety of

articles addressing a variety of different issues rather than a long article addressing many issues. If a long article is published addressing many issues, it is unlikely that a newspaper will entertain repetition. Newspapers are not going to be a venue to rehash the same news event. Thus, shorter articles that address different dimensions of the same social problem comply with the standard of saturation.

Short articles focusing on different dimensions of the same problem produce an increase quantity of newspaper articles. In addition, the singularity of these articles is more likely to be well-thought-out and precise. The large quantity of well-thought-out short newspaper articles is more likely to have a greater impact on other media outlets and the deliberations of stakeholders and decision makers.

4.5. The Media and Litigation

For the analysis of advocacy, a critical question must be asked. Do media outlets have an impact on litigation within the various jurisdictional courts? The line charts in Figure 5 produce unremarkable data from our research.

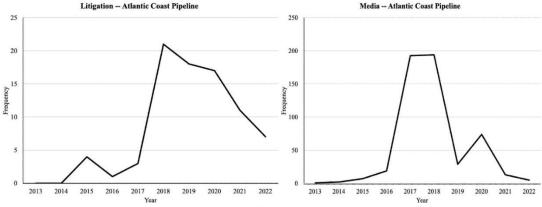


Figure 5 Contrasting Litigation and Media Coverage with Raw Numbers

This type of raw data analysis is counterproductive. The first chart illustrates the frequency of ACP court litigation overtime. The second line chart illustrates the frequency of media presentations regarding ACP. Clearly, these charts must be combined. However, combining these two different raw datasets produces an incoherent line chart. A statistical problem emerges because of the incongruent variances between the two datasets. This problem is resolved by transferring the two distributions into z-scores. This produces a single metric for the two datasets. When a change agent fails to employ a standardizing methodology, insight is lost.

Marson and Dovyak (2020) explain the math and practical applicability of z-score transformation into illuminating complex causal relationships. When distributions are transferred to z-scores, the mean is calculated to be 0. Thus, in our case, the mean for litigation and media is 0. In this way, the two distributions can be easily compared as illustrated in Figure 6.

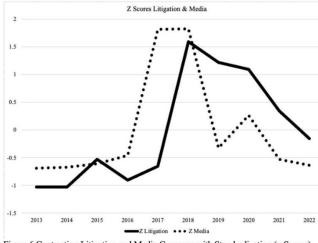


Figure 6 Contrasting Litigation and Media Coverage with Standardization (z-Scores)

The transformation of these two distributions provides the basis for calculating a moderate correlation for the raw data (r = .407; p < .06). If we hypothesize that there was an association between the frequency of media reports and litigation, we expect the two distributions to appear as we see within our z score chart.

The rate of recurrence of media reports and litigation indicates a symbiotic relationship. Each may influence each other in a nonlinear manner or an interactive effect: As media provides attention, litigation increases. As litigation increases, more exposure is provided by the media. The extensive amount of litigation and its success in the federal courts created more media and public recognition of the ACP controversy. Also, the frequency of media reports validated and largely supported the opposition's legal positions and advocacy. Within Figure 6 for the years 2016 to 2018, note that the frequency pattern of media reports is followed by a similar frequency pattern for litigation. The patterns of these two distributions are remarkably similar. Noting this frequency between the rise of media coverage and litigation, we will now turn to the third, triangular cause of the ACP defeat and its relationship to both media coverage and litigation: The extensive and massive rise of opposition to the Atlantic Coast Pipeline that occurred in both North Carolina and Virginia.

5. Commentary

The first major break in national media coverage in the ACP campaign came when the Fourth Circuit Court of Appeals quoted Dr. Seuss's *Lorax* in a ruling castigating the U.S. Forest Service and the Atlantic Coast Pipeline for not acting in the interest of the trees. Some headlines read: "Who Speaks for the Trees?" (Burch, 2018, December 13; Sullivan, 2018, December 17). A federal appeals court has called in the *Lorax*, the grumpy little creature famous in Dr. Seuss's book for acting as a guardian for the trees. In a recent decision filed by the Fourth U.S. Circuit Court of Appeals in Richmond, Virginia, a three-judge panel stripped Dominion Energy's permit to construct the Atlantic Coast Pipeline across two national forests and the Appalachian Trail. The permit was originally granted by the U.S. Forest Service. The appeals court declared that in issuing the permit for the pipeline's construction, the U.S. Forest Service "abdicated its responsibility to preserve national forest resources." The panel further commented that "We trust the United States Forest Service to speak for the trees, for the trees have no tongues. This decision on the part of the forest service did not act in the interest of the trees." This litigation and consequential media coverage demonstrates the opportunity for a symbiotic relationship between the courts and the media to influence the trajectory and spirit of a social action campaign.

5.1. ACP - The DAPL of the East

The Atlantic Coast Pipeline was dubbed the "DAPL of the East" (Dakota Access Pipeline). The extensive and lengthy land occupation against DAPL at Standing Rock, North Dakota was an inspiration and motivation to many opponents of the ACP. Many ACP opponents traveled to Standing Rock to experience the massive land occupation firsthand. Arrestable, civil disobedience was also a strategy utilized by the ACP opposition, more so in Virginia and once in North Carolina. One major difference in the two campaigns is that the ACP was halted and DAPL was not.

The significance of the ACP defeat cannot be understated. The Atlantic Coast Pipeline was the only oil or gas pipeline on President Trump's National Security Priority List from his first term in office. The protest at Standing Rock in North Dakota against the Dakota Access Pipeline garnered massive national and international recognition. At the same time, the opposition against the ACP became the largest and most extensive oppositional pipeline campaign of first twenty years of the 21st century in the Eastern United States.

The ACP campaign never reached the level of public recognition and media attention that occurred as a result of the Standing Rock occupation. What did occur in North Carolina were major organized protests along the ACP route in North Carolina and Virginia. In North Carolina, this included a proactive, 15-day protest walk along the entire 205-mile route organized by the *Alliance to Protect Our People and the Places We Live* (APPPL) in March 2017. Previously, APPPL coordinated three local protests walks on Saturday, November 19, 2016 (Marson & Legerton, 2022). Held in Pembroke, Fayetteville, and Rocky Mount NC, these protest actions joined hundreds of indigenous, black, and white residents in Eastern North Carolina in united opposition to the controversial pipeline. The activities of APPPL is an accurate portrayal of our concept *geosocialpolitical*.

The surprise announcement of the ACP's approval of the 401 Water Quality Certification on January 26 by the NC Department of Environmental Quality (NCDEQ) caused consternation among the protesters. The recognition garnered by the opposition in local communities caused increased media coverage. The credibility of the NCDEQ was brought to the forefront. Based on all the evidence, the opposition leaders assumed that the water quality permit would be denied.

Their assumptions proved to be wrong. Along with the permit approval announcement by NCDEQ, Governor Cooper announced a \$57.8 million settlement with Duke and Dominion Energy. Oppositional leaders interpreted the permit issuance as a *quid pro quo*. Republican Party leadership initiated an investigation into the inexplicable agreement. With the cancellation of the ACP, the controversial settlement money was never provided to the State.

In celebrating and reflecting on the ACP victory, the constant refrain among organizers, advocates, researchers, journalists, and politicians that were opposed to the pipeline project was:

We wouldn't have won without broad-based, community organizing on the ground in the communities most impacted by the pipeline.

In major social action campaigns, there was *never* one major reason why a campaign was successful. But there is one strategy that, if neglected, can singlehandedly cause campaign defeat:

The lack of a well-planned and implemented, broad-based, resourced, respected, community base of organization and advocacy that is inclusive of the community's diverse populations and communities.

From Northampton County (VA) to Robeson County (NC), residents organized through both existing and new groups within the eight counties along the pipeline trail in North Carolina. Along with the pipeline infrastructure, a major compressor station was proposed in Northampton County along the Virginia border and a metering and regulating station in Robeson County. The presence of these additional components intensified the opposition in these two counties, both of which had histories of environmental justice organizing and action.

Network organizing cannot replace the power and strength of local, geographically-based, horizontal units of organization, particularly in low-income communities. It is the local units of organization that provide the cornerstone for base-building and organized influence when aligned and engaged with statewide and national coalitions and campaigns. Once organized and co-laboring on the local level, units of influence can bring their power to impact statewide, regional, and national campaigns and coalitions. Absent of organized influence on the local level, the power is severely limited (Legerton, 2024).

Major opposition to the ACP grew along the pipeline's route which in turn drew extensive media attention and local litigation in Robeson and Nash Counties (NC). Statewide environmental organizations, located mostly in the larger cities, advocated against the ACP and joined many of the lawsuits opposing it. In North Carolina and Virginia, the Southern Environmental Law Center was a leading litigant opposing the pipeline.

In reality, the triangular strategies of grassroots organization and advocacy, litigation, and media recognition worked to create a broad-base of popular opposition to the Atlantic Coast Pipeline. In further and deeper analysis, we see valid, reliable, culturally responsive and competent research contributing to the termination of the ACP.

5.2. Valid, Reliable, Culturally Responsive and Competent Research

A powerful key to victory was the collection and widespread dissemination of valid, reliable, and culturally responsive and competent research. The research was wisely employed in the campaign in concert with the unseen power of committed and able people. These campaign efforts were also facilitated by the academic community in concert with professional community organizers.

Ryan Emanuel, Lumbee Tribe scholar, completed extensive research on the Atlantic Coast Pipeline (Caretta, Haeffner, Emanuel, Hood & Seydel, 2024; Emanuel, 2024; Emanuel, 2017; O'Donnell, Bernhardt, Yang, Emanuel, Ardón, Lerdau, Manda, Braswell, BenDor, Edwards, Frankenberg, Helton, Kominoski, Lesen, Naylor, L., Noe, Tully, White & Wright, 2024). He challenged the environmental justice analysis produced by the Federal Energy Regulatory Commission (FERC) as being flawed and invalid. Emanuel documented that 30,000 Indigenous people live within one mile of the proposed pipeline route in North Carolina, representing 10 times more than the 3% of the state population that are indigenous. Other scholars, including Ryke Longest and Nancy LaPlaca were instrumental in researching, collecting, and analyzing data that was used to challenge the Atlantic Coast Pipeline's misinformation.

In addition, research findings, projects, and papers were published by the Institute for Energy Economics and Financial Analysis, Friends of the Earth, Southern Environmental Law Center and Oil Change International. Students at the Columbia Law School assisted Mac Legerton and Donna Chavis in researching the ACP Water Quality Permit Application that was approved by the North Carolina Department of Environmental Quality (NCDEQ). Based on their combined research, Legerton and Chavis filed an Administrative Petition to revoke the permit. Within their petition,

they provided substantial evidence that countered many ACP claims of the limited cumulative impact of the pipeline. Although denied by Duke and Dominion Energy, the petition also documented plans to take the pipeline to South Carolina and transport gas to Georgia. At that juncture, the product would be turned into liquefied natural gas (LNG) and exported to Europe for greater profits. Significant data was collected, reviewed and edited. With the passage of a considerable amount of time, NCDEQ issued a *verbal* notice that the petition to withdraw the permit was denied. Clearly, this outcome was a major setback.

The significant research on the ACP by all of these and other researchers provided the evidence that grassroots and professional organizations and persons needed to support their opposition to the ACP. As practice indicates, a successful social action campaign on any issue includes valid and reliable data and information combined with power defined as relationships of organized influence. We have concluded that one without the other will cause any campaign to fail.

5.3. Proactive Strategic Planning and Implementation

There are as many ways to win as there are to lose campaigns. A successful campaign will be a creative and proactive. Social action campaigns that are both effective and successful take the initiative and "play offense" more than defense. As long as campaigns are reactive and focus on countering everything that a government agency or industry is doing, it is almost impossible to build momentum to win. Reactive strategies leave a campaign at least one or two steps behind. While anger may motivate, it is an abysmal component within a strategy. Proactivity and creativity cannot thrive when a person or group is mad, feeling overwhelmed, or exhausted (Brown, 2024). Within our geosocial political paradigm, strength emerges from diversity. When one sector of the protesting organization is exhausted or overwhelmed, other sectors of the protesters facilitate encouragement.

Grassroots organizers and leaders involved in the ACP campaign came to understand the need for proactivity and developed strategies that became tipping points in their efforts to halt the proposed pipeline. While there were also tipping points in the ACP campaign in Virginia, many of the tipping points in North Carolina have already been referenced in the reflections offered in this paper. They include:

- the long, 15-day dramatic walk.
- holding simultaneous walks in three places on the same day along the pipeline route.
- mentoring, supporting, and hiring researchers to provide valid and reliable reasons to oppose the pipeline.
- challenging the use of eminent domain when all the legal decisions on a project have not been resolved.
- accessing information and quotes from an elected official and Dominion Energy executive expose the true nature, scale, and purpose of the pipeline.
- utilizing nonviolent, civil disobedience as a form of social witness when all else fails.
- challenging the NC water quality permit with an administrative petition with valid evidence that the pipeline
 owners did not indicate and provide information on the full impact, scope, scale, purpose, and direction of
 the project in the permit application.

Prior to the ACP being cancelled, environmental groups spoke before the Environmental Justice and Equity Advisory Board of the NC Department of Environmental Quality (NCDEQ). The Advisory Board was established by Secretary Regan in May 2018, four months after NCDEQ's approval of the ACP's Water Quality Permit and the strong reaction by grassroots opponents to the Secretary's decision, including the unanticipated, nonviolent sit-in and arrests at the Governor's office. Due to the ongoing delays to pipeline construction, the ACP filed for a needed extension from the Federal Energy Regulatory Commission (FERC) in 2020. Opposition groups requested that the NCDEQ's Advisory Board make a recommendation to Secretary Michael Regan to submit a letter to FERC supporting the denial of the proposed ACP extension. As a critical move, the Advisory Board voted in favor and recommended that Secretary Regan send the letter. Although the time was short, a letter to FERC recommending that the extension be denied *was not* sent. Shortly after the deadline for public comments regarding the proposed extension, Duke and Dominion Energy announced that they were cancelling the Atlantic Coast Pipeline. Up until the end, unceasing proactive strategies were utilized by opponents to the ACP.

Many of the ACP grassroots opponents had a deep level of commitment and practiced with the hope that the ACP would never see the dark of the soil of Eastern North Carolina. However, ACP pipelines *did see* the dark of the soil and even tunneled under the Roanoke River in Eastern NC. Landowners and people felt like this demonstrated that the pipeline

was a "done deal" and not worth fighting for a losing cause. Organizers stated that, that is exactly why Duke and Dominion Energy went ahead with construction of the pipeline and massive destruction of forest lands prior to resolution of the ACP controversy in the courts. They took landowners to court with eminent domain, destroyed hundreds of acres of trees, laid down pipes, spending billions of dollars *before* all the court cases had been settled. These actions dampen the commitment of the culturally diverse rural populations that were being harmed by the approaching pipeline. In spite of these expansive and expensive efforts, it was a pipeline that was never to be.

When Duke and Dominion Energy finally cancelled the Atlantic Coast Pipeline, their spokespersons blamed their withdrawal on the opposing environmental organizations. In the end, the ACP turned out to be an unnecessary and irresponsible, economic and environmental boundoggle from the very beginning (Vogelsong, 2020; Legerton, 2022).

6. Lessons Learned that can be Generalized

Although there are a large number of critical lessons that can be learned from the ACP campaign opposing the pipeline, seven lessons can be condensed. These lessons are critical because they can be generalized to other environmental, energy, and climate campaigns.

- Perhaps the most overlooked aspect of being part of an environmental movement/protest is possessing more than merely a perfunctory understanding of the science involved in the environmental hazard and the potential environmental hazard. Although the science under girthing the Atlantic Coast pipeline and fracking seems straightforward. It is not. Neither is methane. The public is largely unaware of the serious problems of fracking and methane emissions. Fracking is marketed as the key method of our nation becoming energy independent. When the utility companies promoting fossil fuels speak of reducing carbon, they speak of CO₂ and CH₄ as carbon. The public is unaware that methane (CH₄) and much more harmful than CO₂ emissions over the next 25 years.
- Prior and during the advocacy process, it is incumbent for social change agents to become intimately acquainted with the science under girthing the overall project. Ideally this knowledge base should exist prior to any organized effort opposing the harmful project. In most cases, it is not. Nevertheless, opposing participants must make an earnest effort to comprehend the "doublespeak" positions of the multibillion dollar corporations. While this paper emphasized the science of hydraulic fracking, the science of methane gas and its major, short-term impact on climate disruption and destabilization was also a critical factor. Methane or "natural gas" is not a bridge fuel for clean, renewable energy.
- Causal relationships are rarely bivariate. Failing to recognize that proposed environmental hazards have a *single cause* is nothing less than naive. Recognizing multiple stakeholders within the ranks of both those proposing a change and those opposing the change is of critical importance. One phenomena that had a profound influence on the success of the protest was the raw number of stakeholders. Serendipitously, a massive number of the public became engaged, generated by effective grassroots organizing, legal advocacy, and media coverage. Many of those involved were family farmers and Indigenous tribal members who had an emotional attachment to the land. A vast proportion of the protest movement were conservative individuals and groups living rural communities who envisioned protest as being non patriotic. However, their beloved land, air, and water was on the chopping block and their vision of patriotism was changed. Capturing the attention and motivation of such critical groups is key to successful protest. It is overly simplified to state that the public was motivated by the successful dissemination of the pipeline consequences. Yet, in essence, through tireless work of community organizers such information was ingrained in the minds of the public. They moved from being bystanders to enthusiastic stakeholders.
- Although serendipitous, protest against ACP was geosocialpolitical. Protests occurred by nonprofit agencies, Black communities, Indigenous tribes, journalists, researchers, lawyers, and a few politicians. The various organizations and individuals who were devoted to opposing the pipeline were not coordinated. They were separated by the urban/rural divide and profound cultural differences among the various the low income communities. However, they had the shared goal to oppose the Atlantic Coast Pipeline. The diversity of protesters over a huge geographical area, normally thought to be a liability, emerged as a tremendous asset. However, if the protesters had greater coordination and communication, the pipeline project would have died earlier. For example, if more financial resources and support would have been provided to rural grassroots groups living and working along the pipeline route, the result would have been greater organized influence to

- oppose the ACP. If opportunities for litigation in the various impacted counties had been a priority, additional litigation would have expanded greater public engagement in the campaign.
- Multibillion dollar corporations will continue to pursue economic gains that are not in the best interest of the environment. Such pursuits will be engaged without prior public engagement in large geographical, isolated, rural areas where stakeholders lack knowledge about environmental harms and the commonality with each other. Nevertheless, these stakeholders share a common interest -- geosocialpolitical. In these circumstances, it is critical to provide needed information and support necessary for diverse groups to pursue their common goals. The lack of locally owned and operating grassroots organizations in most rural areas is a major stumbling block. Where grassroots groups exist, many are more focused on community projects and programs of relief, mutual support and development, and are not building a sustained, broad base of organized influence. Rural, grassroots organizing and systems change is very hard, challenging, and taxing work. The majority of financial resources for justice work remains with urban organizations, far removed from the rural communities most impacted and overburdened by the expanding number of energy-related projects that are harmful and are actually slowing the needed, rapid shift to clean renewable energy sources.
- In addressing environmental, energy, and climate-related projects, impacted community members and leaders must have a substantial amount of scientific knowledge regarding environmental and health impacts of proposed and planned projects. The learning curve related to environmental, energy, and climate issues is much higher and broader than the environmental projects of the past. Powell, Currie, Koonce, Legerton and Witter (2024) address energy projects such as those of the wood pellet industry, the biogas industry, the biochar industry, along with the ongoing promotion of un-natural methane gas (aka "natural gas") and liquid natural gas as acceptable fuel sources. They are marketed as fossil fuel and contend that agricultural industries need clean and safe resources for positive economic development. All the while, these industries claim to have "renewable" sources of energy, they are resisting the needed shift to clean, truly renewable energy sources.
- In both rural and urban community members and leaders must anticipate "energy deceptors" or doublespeak and must have the basic scientific knowledge to provide solid counterarguments. Supporters and promoters of truly clean, renewable energy must not only be able to explain what real, clean and renewable energy sources and industries are, but they must have the knowledge base to refute the energy deceptions. Today, environmental, energy, and climate education and competencies are necessary to include as a part of any major campaign that is seriously engaged in a fair and just approach to the energy transition that all of our communities so desperately need.
- Media involvement is absolutely necessary. Along with locally-created informational and educational handouts to be used in local meetings and trainings, online and printed newspapers and journals are the prime catalyst for disseminating information. As stated earlier, newspaper reports (including letters to the editor), are the initial catalysts that starts the long stream of the dissemination with vital information that is then picked up by other news outlets. Today, people underestimate the importance of newspapers as a starting point, particularly in rural areas where many papers are resistant to or will not print or cover stories that are contrary to conventional, industrial messaging and perspectives. In spite of these challenges, creative ways to engage existing and alternative printed and online, local news outlets is essential and expanding local action campaigns.

7. Summary

Academics who have a special interest in community organization have a much different vision of environmental activism when compared to professional change agents with an emphasis in community organization. Academics have their special interest in analyzing and documenting the process of reaching a predetermined goal. Professional change agents, on the other hand, place their energy on strategizing and achieving a predetermined goal through a fluid and ever-changing process. Change agents tend to document less than academics. At first glance, the differences between the two seem superficial. In the long run, the differences between these two perspectives are critical. A successful intervention plan requires a focus on both process and outcome and an internal, critical analysis by environmental advocates of their own strengths and weaknesses as well as those of their adversaries. In this regard, the input of both the academic and the professional change agent perspectives are helpful. The gap between theory and practice, in many ways, is deeper and wider today than previously.

Given the complexities in gaining a clear understanding of the various products of the energy sector, the responsibility, process, and challenges of knowledge building and transfer, what we traditionally called "consciousness raising" is all the more difficult, yet essential. The energy and climate crisis has placed us all in and on new, unstable ground. The

solution is to be more reflective, thoughtful, creative, and proactive in discerning what we are to do and how we are to work together in both new and more responsible ways in this uncertain journey toward a necessary, more sustainable future.

Conflict of Interest: None declared.

Ethical Approval: Not applicable.

Funding: None.

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