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The Draft Environmental Impact Statement for the Atlantic Coast Pipeline:

What is it? What's in it? What you can do!

The Federal Energy Regulatory Commission (FERC) is responsible for deciding whether to authorize the construction, operation, and maintenance of interstate natural gas transmission pipeline facilities. As part of its decision-making process, the agency is required by the National Environmental Policy Act (NEPA) and its implementing regulations to consider the environmental impacts resulting from the construction and operation of a natural gas pipeline like the Atlantic Coast Pipeline (ACP). FERC's environmental staff has prepared a Draft Environmental Impact Statement (DEIS) to assess the potential environmental impacts that could result from the construction and operation of the ACP.

The DEIS for the ACP was released December 30, 2016. It is available at https://www.ferc.gov/industries/gas/enviro/eis/2016/12-30-16-DEIS.asp/ (scroll to bottom of that page). FERC's stated purpose, set forth in the 2300+ page document, is to:

- 1. Identify and assess potential impacts on the natural and human environment that would result from constructing and operating ACP;
- 2. Describe and evaluate reasonable alternatives to ACP that would avoid or minimize adverse impacts on the environment;
- 3. Identify and recommend specific mitigation measures, as necessary, to avoid or further reduce/minimize environmental impacts; and
- 4. Encourage and facilitate involvement by the public and interested agencies in the environmental review process.

Comments on the DEIS are due April 6. FERC's schedule for further action, announced on August 18, 2016, calls for issuing a final Environmental Impact Statement by June 30, 2017 and issuing a decision on the ACP on September 30. In accordance with that timetable, Dominion Transmission Inc. (DTI), managing partner for the project, issued in September a construction schedule that calls for initial work on the ACP to begin in November 2017 and for all construction to be completed by the 4th Quarter of 2019.

The DEIS is a critical part of FERC's process of considering whether to issue a permit for the ACP to be constructed, but it is not the only factor in the decision. The agency must weigh the need for the project. Historically, FERC has used a very shallow standard to determine, essentially considering only whether an applicant pipeline has contracts for the gas that would be moved through the pipeline. But, there are other key decision points that are factors in the overall decision, among them:

- The states through which the pipeline would traverse have the authority and responsibility under Section 401 of the Clean Water Act (CWA) to certify that any discharge into navigable waters in the state resulting from the project will comply with other provisions of the CWA. While this is often routine for some projects, the State of New York last year denied a Section 401 certification for the proposed Constitution Pipeline, thus stopping the project. That decision has been appealed by the project's owners.
- The U.S. Army Corp of Engineers is charged under Section 404 of the Clean Water Act to regulate the discharge of dredged or fill material into water of the United States, including wetlands. It was under that section that the Corp held up the Dakota Access Pipeline.
- Because the ACP crosses the Monongahela National Forest and the George Washington National Forest, the U.S. Forest Service (USFS) must issue a special use permit to authorize the proposed route to be used. The initial proposed route for the ACP through USFS land in northern Pocahontas County, WV and Highland County, VA was denied a permit due to negative impacts on certain plant and animal species. The USFS has not yet decided on whether to issue a permit for the proposed route that is the subject of the DEIS.

What's in the DEIS?

The DEIS's analysis of impacts are based upon voluminous filings that DTI has made since it first applied in September 2014 for a permit, plus the thousands of comments submitted to FERC. The document's analyses are presented under the following categories:

- General
- Geology
- Soils
- Water resources & wetlands
- Vegetation, wildlife & fisheries
- Special status species
- Land use, recreation & visual resources

- Socioeconomics
- Cultural resources
- Air quality and noise
- Reliability & safety
- Cumulative impacts
- Alternatives

MAJOR CONCLUSIONS of the DEIS

FERC staff concludes that "construction and operation of ACP would result in temporary and permanent impacts on the environment. They also conclude that the project would result in some adverse effects, but with implementation of impact avoidance, minimization, and mitigation measures as well as adherence to FERC recommendations to further avoid, minimize, and mitigate these impacts, the majority of project effects would be reduced to less-than-significant levels." Among the principal reasons cited for these conclusions are:

- impacts on the natural and human environments during construction and operation of its facilities would be minimized by DTI;
- proposed facilities would be constructed and operated in compliance with federal standards, requirements, and thresholds;
- a high level of public participation was achieved during the pre-filing and post application review processes and helped inform our analysis;
- environmental justice populations would not be disproportionately affected by the projects;
- the horizontal directional drilling crossing method would be utilized for most major waterbodies, the majority of other waterbodies would be crossed using dry crossing methods, and the project would be required to obtain applicable permits and provide mitigation for unavoidable impacts on waterbodies and wetlands through coordination with the U.S. Army Corp of Engineers and state regulatory agencies; and
- environmental inspection and monitoring programs would ensure compliance with all construction and mitigation measures that become conditions of the FERC authorizations and other approvals.

Highlights and excerpts from the DEIS begin on page 5.

What you can do!

All persons concerned about the ACP are urged to offer comments to FERC about the DEIS by April 6, 2017.

- 1) You can file your comments electronically (which is encouraged) using the eComment feature on the Commission's website (www.ferc.gov) under the link to Documents and Filings. This is an easy method for submitting brief, text-only comments on a project.
- 2) You can file your comments electronically by using the eFiling feature on the Commission's website (www.ferc.gov) under the link to Documents and Filings. With eFiling, you can provide comments in a variety of formats by attaching them as a file with your submission. New eFiling users must first create an account by clicking on "eRegister." If you are filing a comment on a particular project, please select "Comment on a Filing" as the filing type.
- 3) You can file a paper copy of your comments by mailing them to the following address:

Nathaniel J. Davis, Sr., Deputy Secretary Federal Energy Regulatory Commission 888 First Street NE, Room 1A Washington, DC 20426

You can also offer comments at one of ten public comment sessions that have been scheduled by FERC beginning in mid-February to provide opportunities for interested parties to offer verbal comments on their views about the DEIS for the ACP. Verbal comments will be received and recorded by a court reporter and transcripts of all testimony will be placed in the FERC docket for the ACP.

Scheduled Verbal Comment Sessions for the ACP DEIS

(All sessions are from 5 to 9 pm, except as noted in **bold**)

Monday, February 13	Fayetteville, NC, Doubletree Hotel. 1965 Cedar Creek Rd.
Tuesday, February 14	Wilson, NC, Forest Hills Middle School, 1210 Forest Hills Rd.
Wednesday, February 15	Roanoke Rapids, NC, Hilton Garden Inn, 111 Carolina Crossroads Parkway
Thursday, February 16	Suffolk, VA, Hilton Garden Inn, 100 East Constance Road (5:30 pm)
Tuesday, February 21	Farmville, VA, Moton Museum, 900 Griffin Boulevard
Wednesday, February 22	Lovingston, VA, Nelson County H.S, 6919 Thomas Nelson Hwy (6 pm)
Thursday, February 23	Staunton, VA, Holiday Inn, 152 Fairway Lane
Tuesday, February 28	Monterey, VA, Highland Center, 61 Highland Center Drive
Wednesday, March 1	Elkins, WV, Gandy Dance Theatre, 359 Beverly Pike
Thursday, March 2	Marlinton, WV, Marlinton Community Wellness Center, 320 9th St.

Highlights and excerpts from the DEIS

GENERAL

- <u>Project purpose and need</u> The DEIS restates DTI's claim that the ACP is needed to supply natural gas to markets in North Carolina, which is now only served by one interstate pipeline (Transco) and that pipeline does not serve eastern North Carolina. The document acknowledges comments filed that dispute the need, but there is <u>no</u> analysis provided by staff of these contrasting views or the basis for them.
- <u>Pipeline right-of-way</u> FERC recommends that the exercise of eminent domain authority to acquire a permanent pipeline right-of-way should not exceed 50 feet. (pg. 2-19)
- Post-approval variance processes Set forth a procedure for addressing "minor route realignments and other workspace refinements" that arise after a permit is issued. (pg. 2-51)
- <u>Construction</u> This section of the DEIS essentially describes how the ACP will be built and provides no analysis or judgment as to the appropriateness of the intended procedures (beginning pg. 2-30). Noteworthy is the following excerpt:
 - Construction of ACP would be completed using 12 construction spreads ranging in length from 1.4 miles to 79.3 miles. In addition, there would be separate specialized construction crews to construct the aboveground facilities. . . The peak construction workforce for ACP would be 8,400 people for the pipeline and 495 people for the new aboveground facilities. Construction crews would typically work 10 hours per day, 6 days per week.
- <u>Crossing the Blue Ridge Parkway and Appalachian Trail</u> The crossing would be accomplished by horizontal directional drilling(HDD) planned to begin in 2018 and is estimated to take at least 1 year. A recommendation is set forth for coordination with the National Forest Service (pg. 2-47). <u>A recent report by the Dominion Pipeline Monitoring Coalition</u> questions the plan.
- <u>Post-approval variance processes</u> Sets forth a procedure for addressing "minor route realignments and other workspace refinements" that arise after a permit is issued. (pg. 2-51)
- Future expansion of the ACP
 - ACP Foundation Shippers have a one-time right to request an increase in contracted capacity by participation in an Optional Expansion totaling up to 500,000 Dth/d. If the Foundation Shippers were to pursue the Optional Expansion, Atlantic anticipates that it could be accommodated by installing additional compression on the ACP system without the addition of new mainline pipeline facilities. Any future increase in capacity beyond the proposed 1.5 Dth/d requested in this proceeding would need additional FERC authorization (which would also require additional environmental review). (pg. 2-53)

Abandonment

If at some point in the future, any of the project facilities approved in this proceeding were proposed to be abandoned, Atlantic and/or DTI would have to seek specific authorization from the FERC for that action and the public would have the opportunity to comment on the applicant's abandonment proposal. (pg. 2-54)

ALTERNATIVES

- <u>Criteria</u> Established three key criteria to evaluate the identified alternatives, which included whether the alternative would:
 - be technically and economically feasible and practical;
 - offer a significant environmental advantage over the proposed action; and
 - meet the project's purpose. (pg. 3-1)
- No-action alternative This alternative "would avoid the environmental impacts of the proposed projects, but would likely result in the need for an alternate energy means to satisfy the demand for natural gas and energy in the project area, or would result in end users seeking alternate energy from other sources such as other natural gas transporters, fossil fuels, or renewable energy. Given consideration of these factors, we conclude that the no-action alternative is not preferable to ACP and/or SHP and we do not recommend it."
- <u>Existing pipelines</u> "There still is not sufficient capacity on any of the existing pipeline systems to transport 1.44 Bcf/d of natural gas. Therefore, we do not consider use of existing pipeline systems as is, as feasible alternatives to the proposed projects."
- <u>Modification of Existing Pipeline Systems</u> DEIS acknowledges this as an alternative to meet projected need, but makes no judgment on it.
- Existing Transco Pipeline System "The system has a peak design capacity of almost 11 Bcf/d of natural gas and delivers natural gas to markets in the Northeast, Mid-Atlantic, and Southeast region of the United States. In order to meet the purpose of ACP and SHP using the Transco Pipeline system, significant modifications would be necessary." Environmental impacts of such modifications have not been identified and "could not occur within a similar timeframe as the proposed projects. For this reason, and the fact that the existing system does not meet ACP's project purpose, modifications to the existing Transco system are not considered a viable system alternative."
- <u>Existing Columbia Gas Transmission System</u> and <u>Existing East Tennessee</u>
 <u>Natural Gas System</u> DEIS rejects these as viable alternatives for reasons similar to its rejection of the Transco system as an alternative.

- <u>WB Xpress Project</u> Does not align with delivery and receiving points of ACP, and thus is not a viable alternative.
- Merging the ACP and MVP Construction and operation of a merged system alternative "may hold an environmental advantage when compared to construction and operation of both the ACP and MVP separately. However, pursuing this alternative would require significant time for the planning and design, result in a significant delay to the delivery of the 3.44 Bcf/d of natural gas to the proposed customers of both ACP and MVP...we do not find that the merged system alternative holds a significant advantage over the proposed actions and have eliminated it from further consideration."
- ACP and MVP Co-location "The co-location alternative would provide some environmental advantages" but "would present significant constructability issues. There is insufficient space along the majority of ridgelines in West Virginia to accommodate two parallel 42-inch-diameter pipelines. . . When the environmental factors, technical feasibility, and ability to meet the purpose and need of the projects are cumulatively considered, we do not find that the collocation alternative offers a significant advantage and do not recommend its adoption."
- <u>Electric transmission line route alternatives</u> "Many stakeholders suggested that collocating with existing power lines would be generally preferable to a new corridor." DEIS concludes these alternatives "would increase the length" and "environmental impact of the projects" and make "total collocation, the intent of the alternatives, highly unlikely."
- <u>Interstate and Highway Route Alternative</u> Rejected because of infeasibility or adding length to the project.

GEOLOGY

- "The ACP would traverse karst terrain through the Valley and Ridge Province in West Virginia and Virginia, abandoned mines in the Appalachian Plateau Province in West Virginia, and steep slopes in the Appalachian Plateau Province, Valley and Ridge Province, Blue Ridge Province, and Piedmont Province in West Virginia."
- "Construction and operation of ACP would have minor effects on existing geologic conditions in the area. Effects from construction could include disturbance of the natural topography along the pipeline rights-of-way or adjacent aboveground facilities due to trenching, blasting, and grading activities. The primary impacts would be limited to construction activities and would include temporary disturbance to slopes within the rights-of-way resulting from grading and trenching operations and alteration of karst terrain."

• <u>Blasting during construction</u> – "Bedrock present within 5 feet of the surface are considered to be shallow, and within the anticipated trench depth. Based on SSURGO data and the mapped locations of shallow bedrock, blasting may be required along 152.7 miles (25 percent) of ACP. Blasting of the bedrock could potentially damage nearby pipelines and other structures and could initiate landslides, karst activity, or ground subsidence over underground mines. Blasting of bedrock, particularly karst bedrock, could create fractures in the rock, temporarily affecting local groundwater flow patterns and groundwater yield of nearby wells and springs around the blast site, and affecting their water quality by a temporary increase in turbidity levels shortly after blasting."

Along the entire 600 miles of the ACP route, blasting could be required for up to 25% of it. Half of that, 74 miles or 12%, contains hard bedrock (lithic) "that could require blasting or other special construction techniques during installation of the proposed pipeline." But, some areas have a much higher percentage of lithic bedrock along the ACP route and thus will be subject to more blasting during construction: in West Virginia – Randolph County (56%) and Pocahontas County (33%); in Virginia - Highland County (65%), Bath County (37%), Augusta County (19%) and Nelson County (35%).

• <u>Karst geology</u> – "The proposed ACP mainline in West Virginia and Virginia would cross total of approximately 71.3 miles of areas known to be susceptible to karst development. . . The primary geologic impact that could affect the proposed pipeline and aboveground facilities in karst sensitive areas is the sudden development of a sinkhole that damages the facilities and poses a safety risk. Other subsidence features could develop gradually over time, but would not pose an immediate risk to the proposed facilities."

"We received a comment, which included a study that expressed concern that pipeline construction could 'behead' karst conduits supplying water to springs. We reviewed the study, and did not find the supporting data that would lead to this potential conclusion. Atlantic's karst consultant concluded that beheading of underground feeder streams is unlikely to occur because the typical trench excavation depth is 10 to 12 feet, which is not likely to intercept underground conduits. We concur with that conclusion."

- <u>Seismic Related Hazards</u> "The risk of a significant earthquake in the project area damaging the pipeline is low; the risk of seismic ground faulting to occur is also low; and the risk of pipeline damage due to soil liquefaction is considered low."
- <u>Steep slopes, landslides and slope stability</u> The DEIS discusses at some length (pg. 4-23 to 4-29) concerns raised about landslides and slope stability. It acknowledges the high possibility of landslides along several portions of the route, but cites actions that should be taken to avoid such incidents. It essentially dismisses these concerns and treats them as mitigatable.
- <u>Conclusions</u> "We conclude that constructing and operating ACP . . . in accordance with construction and restoration plans would not result in a significant impact" and that "the potential for floods, earthquakes, is low and effectively mitigated."

<u>SOILS</u> – "Construction-related impacts on soils would be temporary and localized to the construction workspace, except where erosion, sedimentation, landslides, and other forms of soil movement affect adjacent areas. Analyses are ongoing to determine whether impacts would be minimized through the use of the construction and restoration plans summarized above and discussed throughout this EIS."

WATER RESOURCES AND WETLANDS – The DEIS identified three public and 237 private water supply wells in the vicinity of ACP, (pg. 4-67). It concludes (pg. 4-86):

- "Overall, operation of the pipelines and aboveground facilities is not likely to impact groundwater use or quality under typical operating conditions."
- "No long-term impacts on groundwater are anticipated from construction or operation of ACP and SHP because disturbances would be temporary, erosion controls would be implemented, natural ground contours would be restored, and the right-of-way revegetated."
- "We do not anticipate any significant impacts on aquifers by ACP, given their depth and the relatively shallow nature of construction."
- "Surface waters would experience short-term impacts during construction activities.
 Long-term impacts related to slope instability adjacent to streams have the potential
 to adversely impact water quality and stream channel geometry, in addition to
 downstream aquatic biota. Restoration and revegetation of disturbed areas would be
 completed in accordance with federal and state/commonwealth permits, and the
 FERC Plan and Procedures"
- "Construction of ACP and SHP would impact approximately 786 acres of wetland.
 Based on Atlantic's and DTI's measures to avoid, minimize, and mitigate wetlands . . . we have determined that ACP and SHP would not significantly impact wetlands." (pg. 4-125)

VEGETATION, WILDLIFE, AND FISHERIES

"Based on our review of the potential impacts on vegetation as describe above, we conclude that the primary impact from construction and operation would be on forested areas crossed by ACP and SHP, including the removal of approximately 6,800 acres of forested vegetation (includes 3,800 acres of permanent impacts) and fragmentation of interior forest blocks. Due to the length of time required to recover forested vegetation, these impacts would be considered long-term to permanent."

- "We conclude that constructing and operating ACP and SHP would not significantly affect common wildlife species at population levels. . . Fragmentation of forested habitat would make the right-of-way permanently unsuitable for interior forest species, but may create new habitat for species that prefer ecological edges."
- The ACP "has the potential to have significant adverse impacts on subterranean habitat and the species associated with this habitat type. The development of karst features could be initiated by the physical disturbance associated with trenching, blasting, or grading, or by diverting or discharging water into otherwise stable karst features."
- DEIS acknowledges that "long-term impacts related to slope instability adjacent to streams has the potential to adversely impact water quality," but states that "Atlantic and DTI *would attempt* to mitigate these impacts through implementation of the measures in the FERC Plan and Procedures." (pg. 4-198, emphasis added).
- There is an extensive, 70-page discussion on the impacts of the ACP on various endangered species. Of note is this recommendation (pg. 4-199):

Atlantic and DTI should not begin construction of the proposed facilities until:

- a. all outstanding biological surveys are completed;
- b. the FERC staff complete any necessary Section 7 consultation with the FWS; and
- c. Atlantic and DTI have received written notification from the Director of OEP that construction and/or use of mitigation (including implementation of conservation measures) may begin.

Concluding this section, the DEIS states (pg. 4-267):

Due to pending survey results, pending conservation measures, and consultations with the appropriate federal and state agencies, in particular with regard to bat species and bat hibernacula, subterranean obligate species, and aquatic species, our determination regarding the overall impacts on state-listed and sensitive species is pending.

LAND USE, SPECIAL INTEREST AREAS, AND VISUAL RESOURCE

• From the introductory statement to this section (pg. 4-270):

In general, constructing and operating ACP... would result in temporary to permanent land use impacts. The effects of pipeline construction on open, agricultural, developed, and residential land would be expected to be minor and temporary to short term. Temporary to short-term impacts would result from clearing of existing vegetation, standing or row crops, and landscaping; ground disturbance from grading, creating the pipeline trench, backfilling the pipeline trench; and increased equipment traffic associated with construction activities. Impacts would include temporary loss of land use, disturbance of the visual landscape, increased noise and dust, and increased local traffic congestion.

An editorial observation: This may be the greatest understatement in the DEIS!

• Of the 603.8 miles of the ACP, 95.5% of it would be built on private lands.

Use of eminent domain

- We received several comments regarding the legality of the use of eminent domain. Commentors argue that the applicability of "public good" or "public use" for determining a project's need and granting an Order, along with the right of eminent domain, to for-profit industries is a misinterpretation of eminent domain laws. A project's need is established by the FERC when it determines whether a project is required by the public convenience and necessity (i.e., the Commission's decision is made).
- In summary, if the Commission finds a proposed project to be environmentally unacceptable based on Commission staff-prepared NEPA documents, the Commission would not approve the project. If the Commission finds the project to be environmentally acceptable based on the NEPA documents, the Commission would approve it, typically with conditions, provided it is otherwise required by the public convenience and necessity. The use of eminent domain is only conveyed to an applicant once the Commission issues an Order.
- <u>Effects on planned business and residential developments</u> The DEIS discusses the potential impact on several specific developments business and residential that would be affected by the ACP. The document concludes in all cases that these effects can be mitigated. (pg. 4-302)
- Proposal for conservation easement swap with the Virginia Outdoors Foundation

Based on a review of the regulations pertaining to VOF easements, it is believed that the project would not be precluded from establishing an easement for ACP on each VOF easement crossed. Atlantic submitted applications for each easement for minor conversions and, along with the VOF, agreed to defer VOF consideration of Atlantic's conversion applications until after publication of this EIS. (pg. 4-325)

Crossing the Blue Ridge Parkway (BRP) and Appalachian National Scenic Trail (ANST)

While we have received and reviewed Atlantic's site-specific HDD crossing plan and alternative direct pipe crossing plan for the ANST and BRP and find it acceptable, the GWNF has provided preliminary feedback and comments from the NPS have not yet been received. Therefore, we recommend that:

- Prior to construction, Atlantic should file with the Secretary, for review and written approval by the Director of OEP, a final site-specific HDD crossing plan and an alternative direct pipe crossing plan for the ANST and BRP.
- Provide documentation that both plans have been reviewed and approved by the GWNF and NPS. (pg. 4-371)

- Blue Ridge Parkway and Appalachian National Scenic Trail Contingency Plan
 - Atlantic developed a contingency plan for crossing the ANST and BRP in the event that the proposed HDD crossing fails. Should multiple HDD attempts fail, Atlantic would use the direct pipe method to complete the crossing. (pg. 4-382)
 - We have reviewed Atlantic's BRP and ANST Contingency Plan and find it acceptable. However, as discussed previously, the GWNF has provided only preliminary feedback and comments from the NPS have not yet been received. Therefore, we have recommended that Atlantic file a final site-specific crossing plan and alternative direct pipe crossing (contingency) plan for the ANST and BRP prior to construction and provide documentation that both plans have been reviewed by the GWNF and NPS.

SOCIOECONOMICS

- "Several socioeconomic effects could occur in the states, commonwealths, counties, and communities in proximity to ACP and SHP during construction. Some of these potential effects are related to the number of construction workers that would work on the projects and their impact on population, public services, and temporary housing during construction. Other potential effects are related to construction, such as increased traffic or disruption of normal traffic patterns. Increased property tax revenue, increased job opportunities, and increased income associated with local construction employment are potential effects of the projects." (pg. 4-383)
- "We received several comments from residents expressing concerns about the costs and ability for emergency public services to respond in the event of an accident along the pipeline route or at any project facilities. As discussed in section 4.12, a catastrophic accident is unlikely based on statistical data. Atlantic and DTI would develop, maintain, and implement emergency response plans as required by applicable DOT regulations. Atlantic and DTI would also communicate regularly with the emergency response personnel regarding pipeline safety and emergency response plans." (pg. 4-398)
- <u>Tourism</u> (pg. 4-398)
 - In general, DEIS concludes any impacts on outdoor recreation opportunities in affected counties would be temporary.
 - A specific discussion in this section addresses concerns in Nelson County (Rockfish Valley and Wintergreen) and other tourism impacts. DEIS concludes: "recreational uses and tourism activities in the project area would not be affected by operation of the project."

- Regarding concerns expressed about the impact on Yogaville and its Ashram, the DEIS states: "Yogaville is located over 4 miles from ACP and, therefore, we conclude no direct or indirect impacts on tourism and visitation to Yogaville would result from construction and operation of the projects." This is plain wrong! The Ashram would be 0.6 miles from the ACP!!

• Property Values (pg. 4-404)

- DEIS cites findings of Key-Log Economics study done on economic impacts in Highland, Augusta, Nelson and Buckingham Counties in VA, which included an examination of property values. The DEIS also cites other studies that have been done on the effect of pipelines on property values.
- Conclusion: "Based on the research we have reviewed, however, we find no conclusive evidence indicating that natural gas pipeline easements would have a significant negative impact on property values, although this is not to say that any one property may or may not experience an impact on property value for either the short or long term."
- <u>Economic Impacts</u> Cites findings of two studies done for Dominion on direct and indirect jobs that would be created by the ACP (conducted by Chmura and ICF).
 DEIS <u>does not</u> include any reference to the study conducted for the Southern Environmental Law Center by Synapse that refutes the Dominion studies.

CULTURAL RESOURCES (pg. 4-414)

- Section 106 of the National Historic Preservation Act (NHPA) requires FERC and
 its cooperating agencies to consider the effect of the area of potential effects on
 properties listed or eligible for listing under the NHPA ad to afford the American
 Council on Historic Preservation an opportunity to comment. If a historic property
 would be adversely affected by the projects, avoidance or other mitigation would be
 proposed.
- "Atlantic recorded 133 cultural resources sites in the current APE that are potentially eligible for listing in the NRHP or have not been evaluated for listing, or are cemeteries that are protected by state laws. Of the 133 sites, 35 are archaeological sites and the remaining 98 are historic architecture sites. Sixteen cemeteries are included, five battlefields, and four historic districts. Subsequent to these surveys, Atlantic proposed numerous reroutes and minor route adjustments along the project route in Virginia. They are surveying route changes and will report on the findings. Atlantic would also report on metal detecting surveys of historic Civil War battlefields."

- "We asked Atlantic to consider effects on the Yogaville cultural site, and they responded that the pipeline route is located approximately 0.5 mile to the southwest of the proposed boundaries of the historic district and, therefore, no impacts on the proposed district as a result of construction and operation of ACP are anticipated. The Virginia Department of Historic Resources has not provided comments on potential effects of ACP on Yogaville." (pg. 4-419)
- "Compliance with section 106 of the NHPA has not been completed for the ACP.
 Atlantic and DTI still need to complete cultural resources surveys of proposed project areas and treatment plans for NRHP-eligible sites that cannot be avoided."
- "To ensure that the FERC's responsibilities under the NHPA and its implementing regulations are met, we recommend that Atlantic and DTI should not begin construction of ACP facilities or use of contractor yards, or new or to-be-improved access roads until:
 - a. Atlantic and DTI file with the Secretary:

i. all survey reports, evaluation reports, site treatment plans, and cemetery avoidance plans; and

ii. comments on all reports and plans from the Pennsylvania, West Virginia, Virginia, and North Carolina SHPOs; the MNF; GWNF; and NPS; as well as any comments from federally recognized Indian tribes; and other consulting parties, as applicable;

b. the ACHP is afforded an opportunity to comment if historic properties would be adversely affected; and

c. the FERC staff reviews and the Director of the Office of Energy Projects approves the cultural resources reports and plans, and notifies Atlantic and DTI in writing that treatment plans/mitigation measures (including archaeological data recovery) may be implemented and/or construction may proceed." (pg. 4-439)

AIR QUALITY AND NOISE

- This section includes projected emissions from compressor stations and other facilities. (pg. 4-452) It also addresses prospective air emissions: "The projects' facilities would be designed, constructed, and operated in compliance with these applicable standards and regulations. Therefore, we conclude that a health impact assessment is not required."
- Projected noise levels that would be realized during construction and operation, including for the compressor stations. The DEIS concludes that "the noise associated with ACP compressor stations would be below the FERC guideline." (pg. 4-465)

RELIABILITY AND SAFETY

- "The transportation of natural gas by pipeline involves some incremental risk to the public due to the potential for an accidental release of natural gas. The greatest hazard is a fire or explosion following a major pipeline rupture." (pg. 4-471)
- "We received comments regarding the potential for fires and controlled burns to affect the proposed pipeline facilities. U.S. Department of Transportation requirements do not include standards for the use of fire-resistant materials during the installation of underground natural gas pipelines. However, as discussed above, Atlantic and DTI would develop emergency plans that would include establishing and maintaining adequate means of communication with appropriate fire, police, and other public officials, and developing prompt and effective response to a notice of each type of emergency, including that of a fire located near or directly involving a pipeline facility. Atlantic and DTI would develop the emergency response plans in coordination with local emergency response officials, thereby ensuring that its proposed response to a pipeline emergency would be acceptable."
- "We received comments from Wintergreen Resort, Bath County, Virginia and several community members regarding single-point access roads and the ability to evacuate in event of an emergency. In a letter sent to Bath County Supervisor, Stuart Hall, Atlantic documented that these concerns would be addressed on a case-by-case basis." (pg. 4-479)
- "Based on Atlantic's and DTI's compliance with federal design and safety standards and its implementation of the aforementioned safety measures, we conclude that constructing and operating the proposed pipelines and compressor stations would not significantly impact public safety."
- "Despite the ongoing potential for terrorist acts along any of the nation's natural gas infrastructure. . .the unpredictable possibility of such acts does not support a finding that this particular project should not be constructed." (pg. 4-484)

CUMULATIVE IMPACTS

- "In accordance with NEPA, we considered the cumulative impacts of ACP. . . when combined with other projects or actions in the area."
- "We have disclosed the potential GHG (greenhouse gas) emissions from the projects, mitigation measures to minimize GHG emissions, climate change impacts associated with the projects, and the impacts of climate change on the projects. As emissions have been minimized, we conclude that ACP would not significantly contribute to GHG cumulative impacts or climate change. "(Note: A February 15 report by Oil Change International strongly disputes this).

• "The majority of cumulative impacts would be temporary and minor when considered in combination with past, present, and reasonably foreseeable activities. However, some long-term cumulative impacts would occur on wetland and upland forested vegetation and associated wildlife habitats. Short-term cumulative benefits would also be realized through jobs and wages and purchases of goods and materials. There is also the potential that ACP would contribute to a cumulative improvement in regional air quality if a portion of the natural gas associated with the proposed projects displaces the use of other more polluting fossil fuels." (pg. 4-514)

CONCLUSIONS OF THE ENVIRONMENTAL ANALYSIS

"The conclusions and recommendations presented in this section are those of the FERC environmental staff.

"We determined that construction and operation of ACP would result in limited adverse environmental impacts, with the exception of impacts on about 6,800 acres of forested vegetation/wildlife habitat; the federally listed Indiana bat, northern long-eared bat, Roanoke logperch, Running Buffalo Clover, and Madison Cave isopod, which would likely be adversely affected by the projects; and up to 15 cultural resource sites, which could be mitigated for via data recovery. ACP also has the potential to have significant adverse impacts on karst, cave, and subterranean habitat and the species associated with this habitat type; Atlantic's and DTI's Karst Mitigation Plan (appendix I) outlines the measures that would be taken to avoid or minimize these potential impacts; however, subterranean obligate species are often endemic to only a few known locations, and are vulnerable to changes in hydrological pattern or water quality (WVDNR, 2015a); therefore, it is possible that impacts associated with construction activities could have population level effects on these species. Discussions regarding karst impacts and impacts to wildlife that inhabit these features are ongoing between the FERC, FWS, FS, WVDNR, and VDGIF.

"We have also determined that constructing the pipelines in steep terrain or high landslide incidence areas could increase the potential for landslides to occur. This determination is based on a review of the information provided by Atlantic and DTI and further developed from data requests; field investigations; scoping; literature research; alternatives analysis; and contacts with federal, state, and local agencies as well as individual members of the public. As part of our review, we developed specific mitigation measures that we determined would appropriately and reasonably reduce the environmental impacts resulting from construction and operation of ACP and SHP. We are therefore recommending that our mitigation measures be attached as conditions to any authorizations issued by the Commission. A summary of the anticipated impacts, our conclusions, and our recommended mitigation measures is provided below, by resource area." (pg. 5-1)

Additional conclusions and mitigation recommendations, organized by sections of the DEIS are detailed from the bottom of pages 5-1 to 5-44.