Frequently Asked Questions about Dominion's proposed 42" Natural Gas Pipeline (Southeast Reliability Project)

Basic Information

Q: Where can I see the information Dominion has provided about the Southeast Reliability Project (the pipeline proposed to go through Nelson County)?
A: Dominion provided information is here: https://www.dom.com/business/gas-transmission/southeast-reliability-project/index.jsp
Make sure to scroll down and look at Resources and FAQs.

Q: What would be the diameter of the pipeline?
A: Dominion says that in West Virginia and Virginia, the pipe would be 42 inches in diameter; in North Carolina, 36 inches. The Hampton Roads pipeline would be 20 inches in diameter

Q: What would be in the pipeline?
A: Dominion says that the purpose of the pipeline is to transport "dry, pipeline-quality natural" gas. Dry, pipeline quality gas has undergone processing to remove more toxic and liquid components of fracking. It is mainly composed of methane, which is highly flammable, and a potent green house gas, but non-toxic. However, we do not know what the potential is for toxic contaminants to be present in the dry gas and how Dominion may or may not test for such contaminants; nor what additives Dominion may add at compressor stations that may affect toxicity in the case of leaks. Another very large concern is that we do not know whether the pipeline's purpose could be altered after approval to carry much more toxic and dangerous liquid gas byproducts (Natural Gas Liquids, NGLs). These flammable liquids, such as propane, butane, and ethylene, are used to make plastics and detergents and are more likely to contaminate water supplies if they leak. It is also not clear whether the pipeline could be used in the future to carry other hazardous liquids, such as petroleum products or byproducts. A Federal Energy Regulatory Commission (FERC – the federal agency that regulates interstate gas pipelines) brochure says "In some cases a pipeline company may ask to abandon a pipeline for use as a natural gas transportation line, but reserve the right to convert that line to another use, such as the transportation of crude oil or other petroleum products. Easements agreements affected by conversion transactions may transfer to the new operator." See http://www.ferc.gov/for-citizens/citizen-guides/citz-guide-gas.pdf

Q: Why should we be worried about contaminants in the gas, if it is just "dry, pipeline quality natural gas?"
A: The Energy Policy Act of 2005 exempted the hydraulic fracturing process (through which natural gas is now extracted from deep wells using chemicals and water) from certain federal environmental regulation, including regulations under the Safe Drinking Water Act. See http://www.independentwatertesting.com/educationcenter/148-what-is-the-halliburton-loophole.html). These 2005 exemptions mean, among other things, that under federal law, gas companies need not disclose what chemicals are used in gas extraction or whether these chemicals persist in the natural gas that is transmitted via pipeline. See http://sites.allegheny.edu/boussonadvisorygroup/laws-and-regulations)

Q: Where would the pipeline go?
A: The pipeline would go between an origination point in Harrison County, W.Va., southeast to Greensville County, Va., and toward southern North Carolina. There would also be an almost 70 mile pipeline to Hampton Roads. In Virginia, the pipeline would go through Highland, Augusta, Nelson, Buckingham, Cumberland, Prince Edward, Nottaway, Dinwiddie, Greensville, Southampton, Suffolk, and Chesapeake Counties

Q: Would the pipeline be buried the whole way?
A: Dominion says the pipeline will be buried in a trench approximately 9 to 10 feet deep, with about 3 feet of soil under the pipe and about 3 feet of soil on top. However, they have not said whether the pipeline would be buried everywhere.

Q: How much pressure would the gas in the pipeline be under?
A: Dominion says that the range of normal operating pressure on the pipeline would be from 750 pounds per square inch gauge (psig) to 1,440 psig, its Maximum Allowable Operating Pressure. 1440 is considered very high pressure, and there are very few, if any, gas pipelines currently in operation with pressure this high. The higher the pressure, the greater the explosion risk and the greater the impact of an explosion.

Q: Would the pipeline really need to be 42 in.? Do they have contracts to sell all that gas?
A: We have no information regarding what contracts Dominion may or may not have in hand at this point. Our research indicates that Dominion has proposed this pipeline at least in part in response to requests for proposals from Duke Energy and Piedmont Natural Gas. Apparently, the RFP requested low cost expandability. A Dominion marketing presentation, found online (http://prezi.com/avstd_pctbqs/southeast-reliability-project/) suggests that the 42 inch size reflects Dominion's desire to "provide low cost expandability" and to "size it right the first time". Dominion's choice to "size it right the first time" unfortunately means that landowners may be forced to provide easements that are larger than necessary for market share that may never come. It is also likely that

Dominion would like to build a large pipeline because there is a large international market for gas. They have obtained 20 year contracts to export gas to India and Japan from a new exporting facility they are trying to open near Hampton Roads (See questions under economic costs and benefits).

Right of Way

Q: What would be the permanent Right of Way (ROW) required for the pipeline?
A: Dominion says it would be about 75 feet.

Q: What activities would, or would not, be allowed in the ROW?
A: Dominion will give each landowner a standard contract, which will specify all the details of the right of way. Dominion has not made the contract publicly available. However, landowners should know that they can negotiate with Dominion on many of these points. At the same time, if negotiations fail, and if Dominion receives regulatory approval, they can use eminent domain to acquire your property on their terms with a court determining compensation.
You should seek your own legal representation in an easement negotiation. The following quote, and many questions you should consider in negotiating a ROW agreement, can be found at
http://cedik.ca.uky.edu/sites/cedik.ca.uky.edu/files/Questions_for_Landowners_Garkovich.pdf
"No landowner should sign any agreement with a pipeline company without completely understanding the impact of the agreement for the short and potentially very long term. Many aspects of a pipeline easement are negotiable. Typically a pipeline representative will present the landowner with a pre-printed agreement. The standard easement form is an extremely powerful document specifically designed by the pipeline company lawyers to the company's benefit and may impact the land for many generations."

However, the following points, from Dominion's website, are probably not negotiable:

"To ensure pipeline integrity:

- Do not erect buildings or structures, or plant trees or other obstructions on the pipeline rights of way.
- Do not excavate, change the grade or impound water within the rights of way without our permission.
- Do not move heavy equipment or logs across the rights of way and avoid blasting within 1,000 feet of the pipeline without our approval.

Although building on the rights of way is prohibited, under certain conditions roads, railroads, streets, cables, and other utility lines may cross the pipeline. In these

instances, Dominion will work with the owner/developer/contractor to accommodate such construction. The owner and/or developer will be required to pay any costs necessary to ensure the pipeline meets all regulations."

Q: What would be the construction ROW required for the pipeline?
A: Dominion says that the construction ROW would be about 125 feet, but construction ROW size, location, and duration could all be considered negotiable.

Safety

Q: Is it likely that the pipeline would leak?
A: Yes, it is likely that the pipeline would leak. A study published in January 2014, for example, found that Washington D.C. had nearly 6000 gas pipeline leaks, including 12 places with enough accumulated gas to explode if ignited. See http://www.npr.org/2014/01/16/262911327/aging-pipes-in-d-c-create-about-6-000-natural-gas-leaks

Q: What are the potential consequences of a leaking pipeline?
A: The consequences of a leak depend on several factors. Although Dominion has stated that the pipeline would transport "dry, pipeline quality natural" gas, we have not been given any legally enforceable guarantees that it would not transport something more toxic in the future, nor that the gas would not have toxic contaminants or additives (see 'Basic Information'). However, assuming that the pipeline only carried dry gas, the main danger is explosion. Explosions can only occur if leaks are ignited. The extent of the explosion will depend on both the diameter of the pipeline and the pressure of the gas. Fires and explosions due to gas pipelines are occurring with increasing frequency. See http://www.csmonitor.com/Environment/2012/1212/West-Virginia-gas-pipeline-explosion-just-a-drop-in-the-disaster-bucket

Q: What is the potential impact radius (PIR) of an explosion for this pipeline?
A: Regulations require Dominion to figure this out, but they are not required to let property owners know if their homes or property are within the explosion zone. We have not received any information from Dominion about this.

Q: How do we know that the pipeline would be safe in an earthquake?
A: We would really like to see evidence that Dominion's proposed construction methods would withstand seismic pressure likely to occur along the route, but we have not received any information on this. The 2011 earthquake in Mineral, VA was a 5.8 on the Richter scale.

Q: Has Dominion ever built a pipeline of the proposed size and pressure? How many such pipelines are currently operating?
A: Dominion has not provided any information on this question.

Q: If the proposed pipeline is bigger and under more pressure than most if not all previously built pipelines, how can the public be assured that pipelines of this type are safe?
A: Dominion says "Natural gas pipelines are regulated by the federal government's Pipeline and Hazardous Materials Safety Administration (PHMSA) to insure that all facilities under its jurisdiction are constructed and maintained with public safety first and foremost in mind." However, this pipeline, as we've said, is bigger and under more pressure than most, if not all, currently running pipelines. Therefore, it will be more dangerous. It is not clear if regulations have kept up with the greater danger that newly designed pipelines would pose. Also, it is worth noting, that the PHMSA says on their website "By 2016, we aim to: Reduce the number of pipeline incidents involving death or major injury to between 26-37 per year. Reduce the number of hazardous materials incidents with environmental damage to between 44-64 per year." See http://www.phmsa.dot.gov/pipeline

Fracking

Q: If the pipeline comes through Nelson, does that mean that they will start to frack in Nelson?
A: Fracking can only occur where there are particular geological formations which have gas underneath them. Nelson County does not have shale basins, so fracking cannot occur here. However, George Washington National Forest, west of I81, DOES have gas in it and fracking companies are trying to access that gas.

Q: If the pipeline comes through Nelson, does that mean that George Washington National Forest is more likely to be fracked?
A: Yes. First, in general, every new gas pipeline built will increase fracking, someplace. Without pipelines, companies cannot economically sell their gas. Pipelines are vital fracking infrastructure. Second, Dominion's Reliability Project would bisect George Washington National Forest. It would cost between 2 and 4 billion dollars. If built, this cost and proximity to potential fracking sites would provide a lot of leverage to add political pressure on the Forest Service to open the forest to fracking. Third, Dominion has made it clear that any "producer" would be able to tap into the new pipeline: "… the pipeline is open to producers and the market and provides… the ability to tap into the pipeline for gas capacity…" See https://www.dom.com/business/gas-transmission/southeast-reliability-project/pdf/serp-faq-general.pdf

Q: Why should I care if they frack George Washington National Forest? I just don't want a pipeline on my property/ in Nelson County!
A: George Washington National Forest is a prime recreational and scenic draw for visitors and residents to Nelson County. Fracking is a major industrial operation, which includes air, water, noise and light pollution and increased traffic. Importantly, George Washington National Forest also contains the headwaters of

our watershed, which means that the water in our wells and rivers begins in the forest. Four states have confirmed that fracking causes water contamination: http://www.usatoday.com/story/money/business/2014/01/05/some-states-confirm-water-pollution-from-drilling/4328859/
Concerns about water supply are among the leading reasons that ten local governments (but not yet Nelson County) have expressed formal concerns about fracking in the Forest. Further, three major metropolitan water suppliers—the Fairfax County Water Authority, DC Water, and the Army Corps of Engineers' Washington Aqueduct, which supplies Washington, D.C. and Arlington County and Falls Church, VA have filed comments opposing fracking in the National Forest.

Economic costs and benefits

Q: Would residents or business in Nelson County be able to access the gas in the pipeline?
A: Dominion says they " … expect to connect with various local gas distribution companies, as capacity permits; and with power generators…" but that "it would not be feasible to connect individual homes or small businesses directly to the line." See https://www.dom.com/business/gas-transmission/southeast-reliability-project/pdf/serp-faq-general.pdf.

Q: How many jobs would be created from this project in Nelson County?
A: We would like to see documentation from Dominion detailing permanent versus temporary jobs created, and how many of those jobs went to locals versus out of towners from other pipeline projects that they have completed.

Q: Besides jobs, are there other potential economic benefits to Nelson County?
A: We would like to see documentation regarding benefits to the local economy from other projects Dominion has completed. Dominion says that "there would be economic activity spurred by the construction effort, such as an increase in sales tax revenue. Construction companies purchase material and fuel and they would buy a lot of it locally. Crews have to eat and sleep, and they would eat and sleep locally [for the duration of the construction effort which takes quite some time]". See https://www.dom.com/business/gas-transmission/southeast-reliability-project/pdf/serp-faq-operational.pdf Dominion also states that "There could be an increase in a region's potential for economic development, if that is what the county wants. The decision to seek economic development is the county's alone to make. Based on our experience, a pipeline makes that potential possible." Same source as above. As Dominion also says that only large businesses and power companies could tap into the line, it is clear that potential economic development would be industrial. Natural gas liquids (NGLs), as opposed to the "dry" gas that Dominion says would run in this pipeline, are key ingredients in a wide range of petrochemical based agricultural and consumer products.

Q: Who would the end users be for the gas that would flow in this pipeline?

A: We have no information regarding what contracts Dominion may or may not have in hand at this point. Our research indicates that Dominion has proposed this pipeline at least in part in response to requests for proposals from Duke Energy and Piedmont Natural Gas in North Carolina. Dominion has also said that the pipeline would have a 70-mile spur through Greensville County to the Hampton Roads area, spurs in North Carolina to Raleigh and Fayetteville and a connection to the new gas fueled Brunswick Power Station in Brunswick County in Virginia. We do not know, though, whether Dominion actually has contracts in place to sell gas to any potential domestic buyers. We do know that they have 20 year contracts with both India and Japan to sell liquefied natural gas from their exporting facility near Hampton Roads. If Dominion does obtain domestic contracts, we would like to know their duration because initial domestic contracts could soon give way to longer term contracts to export. We also know that FERC recently approved a new pipeline next to an in use major interstate line that will go to the Brunswick site. Williams, the company who owns that pipeline says their project "… is primarily designed to fuel Dominion Virginia Power's new 1,300-megawatt electric power plant planned in Brunswick County, Va. " Therefore, it is not clear that the Brunswick plant needs more fuel. See http://co.williams.com/williams/operations/gas-pipeline/expansion-projects/transco-expansion-projects/virginia-southside-expansion-2/

Q: Would this project help keep energy prices lower in the United States?
A: The fossil fuel industry is very excited that soon the United States will be able to produce more gas than we use. This Dominion brochure, "Exporting Clean Energy, Importing Prosperity," (https://www.dom.com/business/gas-transmission/cove-point/pdf/Dominion-Cove-Point-Fact-Book.pdf) which advertises their plans to redesign a gas import facility to a gas export facility says that "In 2016, production of natural gas will exceed consumption." A study commissioned by the United States Department of Energy showed that exporting liquefied gas will raise energy prices in the United States, the only question being by how much. See http://energy.gov/sites/prod/files/2013/04/f0/nera_lng_report.pdf

Q: Who would pay for emergency services required for explosions, etc?
A: State or local taxpayer would pay for emergency services in the event of explosions, fires, evacuations, etc. See http://www.fireengineering.com/articles/2012/05/firefighter-response-to-natural-gas-leaks-and-emergencies.html

Q: Would the pipeline affect my property value?
A: It appears likely that the pipeline would decrease individual property values and the value of surrounding properties. See http://www.forensic-appraisal.com/gas_pipelines_q_a

Construction

Q: Would they use dynamite to blast a trench to bury the pipeline?
A: We know that dynamite is typically used to dig trenches, but Dominion has not given us this information.

Q: Would they tunnel under streams and rivers or blast through the river beds?
A: Dominion has told some property owners that they would tunnel under streams and rivers but we do not know if they would do this along the entire route. We do know that Dominion has blasted numerous river beds in other pipeline construction projects.

Compressor and other stations

Q: What industrial facilities would be built to accompany the pipeline?
A: Dominion has said that the pipeline would include 3 compressor stations and 8 metering and regulating stations. We have heard that they want to build one of the compressor stations in Nelson County, but this is not confirmed. We have not been told anything about the metering and regulating stations.

Q: What is a compressor station?
A: Wikipedia says "A compressor station is a facility which helps the transportation process of natural gas from one location to another. Natural gas, while being transported through a gas pipeline, needs to be constantly pressurized at intervals of 40 to 100 miles. Siting is dependent on terrain, and the number of gas wells in the vicinity. Frequent elevation changes and a greater number of gas wells will require more compressor stations." Given that the proposed route for the pipeline is over 500 miles, with many miles over the mountains in West Virginia and Virginia, it is strange that Dominion has said that they are only planning 3 compressor stations.

Q: Why should we be concerned about compressor stations?
A: The size of the compressor station depends on the diameter of the pipeline and the volume of gas. Since this pipeline would be among the biggest ever built, the compressor stations would also be large. We encourage you to google for pictures of compressor stations to get an idea of what they look like.
Air pollution is a chief concern of compressor stations. They emit nitrogen oxides, volatile organic compounds, formaldehyde, and greenhouse gases. Dominion has not provided any information regarding how many tons of various pollutants they expect from the stations planned for this pipeline. Noise and light pollution are also often sited as serious concerns as the stations run 24/7. You can hear a compressor station here:
http://switchboard.nrdc.org/blogs/amall/live_on_tape_the_dangerous_noi.html

Q: What can you tell us about the metering and regulating stations? Where would they be? How big would they be? How noisy would be they? Could they put one in the right of way they obtain on my property?
A: Dominion has not provided any information about metering and regulating stations, but we do know that they would be part of the design.

Miscellaneous

Q: Is it true that fracked gas is really better for the environment?
A: Fracked gas is being pushed right now as a cleaner, greener alternative to other fossil fuels, with the idea that it contributes less to climate change than coal and oil because it produces far less carbon dioxide when burned than they do. However, methane, the largest component of fracked gas, is actually a more potent green house gas than carbon dioxide. Many factors must be considered when weighing the effect of greater production and use of fracked gas on climate change including the reality of leaking pipelines and fracking wells, the investment in fossil fuel infrastructure which stifles truly green energy innovation and implementation, and the economic dynamics of energy efficiency and the international energy market which suggest fracked gas will be used in addition to, not instead of, coal. Despite the prevailing propaganda about "natural" gas, many experts are concluding that its increased production and use will help the climate crisis, very little, if at all. This article, written by a Harvard Professor, examines the above mentioned factors and others: http://m.motherjones.com/environment/2014/07/natural-gas-not-going-save-world. It concludes "Natural gas is not the bridge to clean energy; it's the road to more climate change."
It is also important to realize that speaking about fracked gas as a clean or green fuel completely ignores the role of fracking in water contamination and fresh water use, as well as the habitat fragmentation, air and water pollution (mainly sedimentation) that pipelines cause due to clear cutting, blasting, and compressor stations.

Q: How soon could Dominion use eminent domain to take my property?
A: Dominion would have to receive a certificate of public convenience and necessity from the Federal Energy Regulatory Commission (FERC) before they could initiate eminent domain proceedings in court. Dominion says they plan to initiate their filing with FERC by the end of this year, perhaps as soon as September or October. FERC is required to conduct an Environmental Impact Statement (EIS) for Dominion's project before they can issue the certificate. We have been advised that the absolute shortest possible time that an EIS could be concluded would be about one year. There will be important opportunities for both public and local government input as part of the EIS proceedings.

Q: How can I better understand the FERC process and ways I can participate in the process?
A: This FERC brochure gives a good overview: http://www.ferc.gov/for-citizens/citizen-guides/citz-guide-gas.pdf