MIDSTREAM DEVELOPMENT IN PENNSYLVANIA

Midstream infrastructure consists of pipelines, processing facilities, compressor stations, and related infrastructure for transporting natural gas from well sites and preparing that gas for market. Issues related to the development of the midstream system are of growing importance within the Commonwealth, as evidenced by increased media coverage of pipeline construction, levels of midstream industry financing activity, and applications for onshore pipeline permits to the Federal Energy Regulatory Commission (FERC).[111] As of December 2012, 57 percent of Pennsylvania's spud unconventional wells were producing gas, a number that at least partially reflects the need for additional pipeline infrastructure to bring these wells into production. In the last six months of 2012, 683 wells were producing that had not been in the previous six-month period, possibly indicating the scale of recent midstream investment.[112]

This ongoing development of a gathering and transmission network for Pennsylvania's unconventional wells caught the Roundtable's attention for multiple reasons:

- Building pipelines includes both substantial surface disturbance (both temporary and permanent) and construction activities that have environmental risks in areas such as erosion and sedimentation, invasive species introduction, forest fragmentation, and stream crossings and encroachments.
- While incidents have been rare, the safety of pipeline systems will continue to be a public concern.
- Air quality and climate change impacts from compressor stations and methane leakage are possible.
- The pipeline system is a delivery mechanism to get shale resources from production to end users. As the markets for these resources continue to develop within the Commonwealth, the locations of midstream infrastructure can, at times, be either a help or a hindrance to users' cost-effective access.
- Pipeline rights-of-way become fairly permanent aspects of the landscape, and midstream planning will continue to interact with other local economic and community development planning.
- Any development inefficiencies that add to the costs of the overall system could possibly be passed on to the consumers and ratepayers.

As Pennsylvania's shale gas industry matures, the administration and legislature will need to periodically examine the Commonwealth's midstream policy and regulatory framework with these issues in mind.

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[111] Federal Energy Regulatory Commission. "Major Pipeline Projects Pending (Onshore)." http://www.ferc.gov/industries/gas/indus-act/pipelines/pending-projects.asp

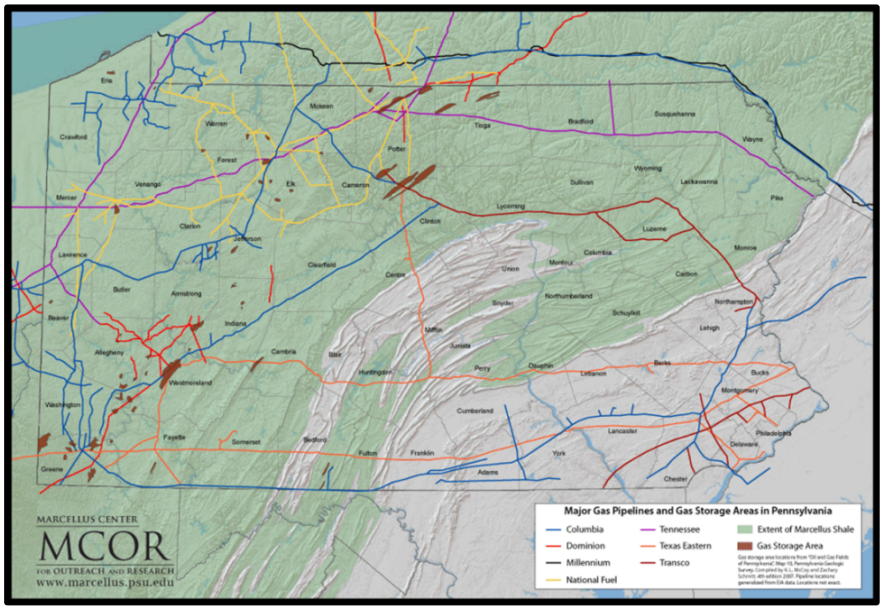
[112] See Southwestern Pennsylvania Oil and Gas Activity Dashboard in Appendix A for further information on producing wells.

The Roundtable prepared the information below to support this examination and to guide thinking on best practices for managing midstream development.

BACKGROUND ON THE NATURAL GAS MIDSTREAM SYSTEM[113]

The U.S. natural gas pipeline network is an integrated gathering, transmission, and distribution system that transports natural gas from producing wells to end users. The country has more than 300,000 miles of interstate and intrastate transmission pipelines, which are just one component of the system. As demonstrated in the map below, gas pipelines and storage areas within Pennsylvania are concentrated around large population centers and gas-producing regions.

Major Gas Pipelines and Gas Storage Areas in Pennsylvania[114]



The transport of natural gas from production to the final customer is a complex process that typically involves several transfers of gas ownership and multiple processing steps. The system begins at the site of production, generally a wellhead or natural gas field. The extracted natural gas, oil, and natural gas liquids are then transported through gathering lines from the production area to either a processing facility or directly to a transmission grid, depending on the initial quality of the product gathered from the wellhead. Gathering lines are generally smaller diameter pipelines buried at least several feet below the surface and are located within cleared and marked rights-of-way. During the gathering phase, the collected natural gas stream may be subjected to an extraction process in order to remove water and other impurities. Natural gas is commonly referred to as "wet" if, at the time of production, it contains significant amounts of lower molecular weight hydrocarbons such as ethane, propane, and butane. Although these hydrocarbons exist in a liquid state deep underground at high pressure, they become

[113] Overview of the midstream system and components partially summarized from the U.S. Energy Information Administration's pipeline primer: http://www.eia.gov/pub/oil_gas/natural_gas/analysis_publications/ngpipeline/index.html
[114] Marcellus Center for Outreach and Research. Pennsylvania State University. http://www.marcellus.psu.edu

gases at surface atmospheric pressure. Natural gas that does not contain such hydrocarbons is often termed “dry gas.”

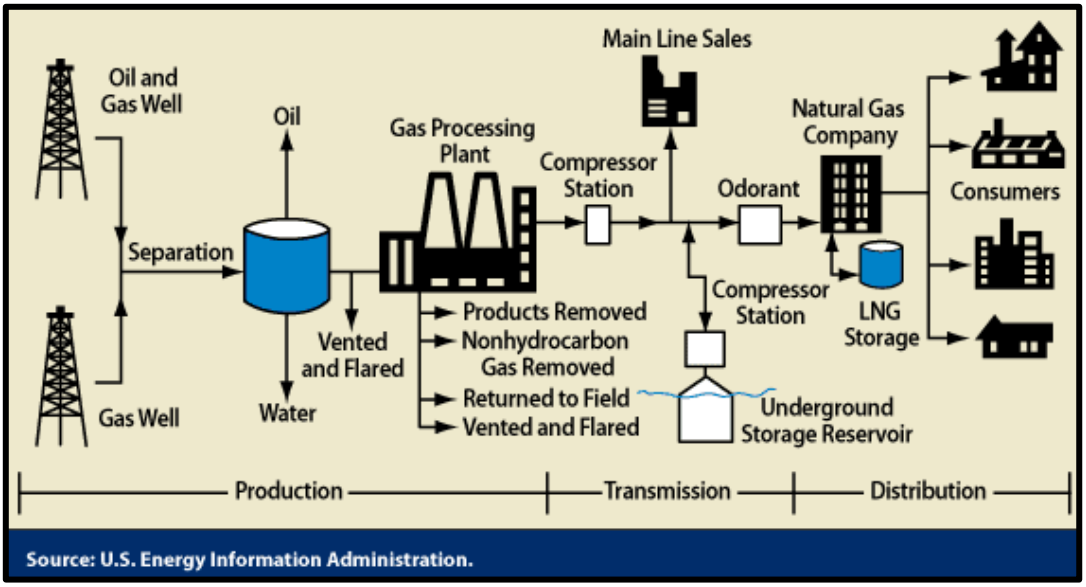
The natural gas in Western Pennsylvania is often wet gas, rich in non-methane hydrocarbons that can be more valuable than the natural gas itself. Wet gas goes through processing that extracts the other, heavier hydrocarbons from the methane, leaving the now “dried” gas pipeline ready. The extracted hydrocarbons are directed to a specialized plant to undergo a process known as fractionation. These facilities separate the hydrocarbon stream into its constituent parts, such as propane, butane, and ethane, which can then be marketed separately as commodities.

Natural gas transmission lines are wider in diameter and traverse the often long distances between the gathering systems, processing plants, and the final distribution network. Generally, transmission pipelines are designed as a trunk line system, with a large number of laterals branching off the main line to form a network of numerous interconnections that receive processed gas and deliver that gas to major markets. There are typically compressor stations of various sizes located along a transmission system whose purpose is to maintain the pressure as well as the rate of flow of natural gas through the lines.

At the terminus of the transmission system, and sometimes along the transmission pipeline route, there are underground natural gas and liquefied natural gas (LNG) storage facilities. These facilities provide inventory management, supply backup, and allow for ready access to natural gas to ensure that customer demand can be met. There are three types of underground storage facilities used in the United States today, which include depleted reservoirs in oil and gas fields, aquifers, and salt cavern formations. Two of the most important qualities of these storage facilities are their capacity to hold natural gas for future use and the speed at which natural gas inventory can be injected and withdrawn.

Transmission pipelines ultimately deliver gas to local distribution utilities, which in turn supply natural gas to industrial, commercial, and residential customers. The U.S. Energy Information Administration graphic below depicts the midstream system, from production to distribution.

Diagram of the Natural Gas Production, Transmission, and Distribution System



Source: U.S. Energy Information Administration.

MIDSTREAM INFRASTRUCTURE OVERSIGHT AND REGULATION

While shale gas exploration and production occupies most of the spotlight, midstream issues also have begun to garner attention at all governmental levels. Locally, several Pennsylvania jurisdictions such as Bradford County have been working with midstream operators to enhance transparency, coordinate planning efforts, collect data on midstream infrastructure locations, and limit any negative impacts from pipeline placement decisions.[115] Nationally, the Federal Energy Regulatory Commission (FERC) in 2012 hosted a series of regional workshops to ease potential tensions between natural gas pipeline operators and electric power generation companies.[116]

FEDERAL MIDSTREAM MANAGEMENT FRAMEWORK

Regulatory oversight for pipeline infrastructure is established based on the characteristics of the specific lines under consideration. Pipelines are most often classified based on whether they cross state boundaries and on their proximity to populated areas and occupied buildings. Pipelines located in densely populated areas are designated Class 4, while very rural parts of the country have largely Class 1 lines.[117]

FERC has jurisdiction over the permitting and economic (rate) regulation of interstate pipelines, which cross state boundaries, and is responsible for overseeing the implementation and operation of the natural gas transmission system. These interstate lines can be sited using eminent domain powers under federal law. Intrastate gathering and transmission pipelines, which are completely within a single state, usually do not require economic regulation from either the federal or state government and do not have eminent domain capabilities. Local distribution systems are typically regulated by the states as public utilities.

The Pipeline and Hazardous Materials Safety Administration (PHMSA), which is located within the U.S. Department of Transportation, is charged with ensuring the safe, reliable, and environmentally sound operation of the nation's pipeline transportation system. PHMSA's safety jurisdiction over pipeline infrastructure currently extends to Class 1 transmission lines and all Class 2, 3, and 4 lines; its jurisdiction does not extend to Class 1 rural gathering pipelines.[118] Additionally, the U.S. Department of Homeland Security has a role in the regulation of pipeline system security and emergency preparedness, and the U.S. Army Corps of Engineers has a role in permitting stream crossings. The implementation of PHMSA's pipeline safety regulations and inspections are often delegated to the relevant agencies of the states.

In 2012, President Obama signed into law the *Pipeline Safety, Regulatory Certainty, and Job Creation Act*, a bill introduced by Pennsylvania Congressman Bill Shuster with bipartisan support.[119] The legislation doubles the maximum fine for safety violations, authorizes additional federal pipeline

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[115] Maps resulting from Bradford County communications and data collection efforts can be found at: http://bradfordcountypa.org/Natural-Gas.asp?specifTab=2

[116] Additional details on the FERC workshops and the results are available at: http://www.ferc.gov/industries/electric/indus-act/electric-coord.asp

[117] Detailed pipeline class designations under PHMSA regulations are available at: http://www.gpo.gov/fdsys/pkg/CFR-2010-title49-vol3/pdf/CFR-2010-title49-vol3-sec192-5.pdf

[118] PHMSA mission, powers, and goals: http://www.phmsa.dot.gov/about/mission

[119] Text of Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2012: http://thomas.loc.gov/home/gpoxmlc112/hc93_enr.xml

inspectors, and requires automatic shut-off valves on new or replaced pipelines. However, existing pipelines are exempt from the automatic shut-off valve requirement, primarily due to the cost/benefit analysis of retrofits. The Act also requires the Secretary of Transportation to conduct a study of existing federal and state regulation of natural gas Class 1 gathering lines to determine the need for any additional regulation at the federal level. The study is due to the U.S. Congress by January 2014.

PENNSYLVANIA MIDSTREAM ACTIVITIES

In the Commonwealth, the Department of Environmental Protection regulates defined aspects of pipeline development, including erosion and sedimentation controls and waterway crossings. The Public Utility Commission (PUC) is the primary pipeline safety agency. It also regulates local distribution utilities and manages relevant systems such as PA One Call.

Governor Corbett's Marcellus Shale Advisory Commission 2011 report included the following recommendations relevant to midstream development:

> *9.1.1*
> *Currently, there is only one gas safety inspector training center (Oklahoma) in the nation. Pennsylvania, in partnership with industry, the federal Pipeline and Hazardous Materials Safety Administration and educational institutions, should pursue existing opportunities which seek to locate a gas safety inspector training facility within the Commonwealth.*
>
> *9.1.2*
> *To address the lack of coordinated permitting processes for pipeline deployment, the Commonwealth should designate a state agency to create a "One-Stop" permitting process while expanding the use of General Permits to authorize routine development activities, as well as maintain jurisdiction over multi-county linear pipeline projects and ensure appropriate notifications have been made to local jurisdictions. It is not the purpose of this proposal to encourage the expansion of statutory jurisdiction of the Public Utility Commission beyond gas safety oversight in so far as non-jurisdictional gathering lines are concerned.*
>
> *9.1.7*
> *The Public Utility Commission should be given statutory gas safety oversight of non-jurisdictional intrastate gathering systems, including mechanisms to establish safety standards regarding the design, construction and installation of such lines within Class 1 areas.*
>
> *9.1.13*
> *A lead state agency should be designated to alleviate delays in linear pipeline project development and approval; to identify redundant (state and federal) natural and cultural resource reviews which should be eliminated; to properly tailor the scope of agency reviews; and the PA Natural Resource Inventory on-line tool should be expanded to accommodate linear projects longer than 15,000 feet.*
>
> *9.1.15*
> *State law should be amended to authorize PENNDOT to negotiate leases which permit the location of energy and utility infrastructure within PENNDOT's right-of-way.*

9.2.35
Identify legislative/regulatory changes needed to:

- *Effect the sharing of pipeline capacity and reduce surface disturbance and associated environmental impacts;*
- *Encourage the use of existing pipeline infrastructure and co-location with other rights-of-way;*
- *Achieve coordination and consistency of infrastructure planning and siting decisions by state, county, and local governments;*
- *Provide sufficient authority and resources for appropriate government agencies to ensure that ecological and natural resource data are used in the review and siting of proposed pipelines, in order to avoid or minimize impacts to these resources.*

9.4.13
The Commonwealth should incentivize the development of intrastate natural gas pipelines to ensure the in-state use of Marcellus Shale gas and to lower costs to consumers through the avoidance of interstate pipeline transmission costs.

In December 2011, the Pennsylvania General Assembly passed Act 127, the *Gas and Hazardous Liquids Pipelines Act*, a partial response to the Marcellus Shale Advisory Commission's midstream recommendations.[120] The legislation, introduced by Representative Matt Baker, created a pipeline registry for natural gas midstream infrastructure and granted the PUC jurisdiction over the inspection of several classes of pipelines. Pipeline siting and inspection requirements not related to safety were not included in this legislation. Pipeline operators are now required to annually register and file certain data with the PUC. These registered operators are then charged a fee to cover the administrative costs of implementing this act. The Act became effective in February 2012, and the PUC issued its Final Order and began implementation in June of 2012.[121]

The legislation authorizes PUC inspectors to apply federal PHMSA pipeline safety regulations to Pennsylvania natural gas and hydrocarbon liquids lines that are not operated by public utilities. Under Act 127, Class 2 through Class 4 gathering, transmission, and storage facilities and Class 1 transmission will be regulated by the PUC using applicable federal safety requirements. The original House bill also included Class 1 onshore conventional and unconventional well gathering facilities (the lines that typically carry gas from the wellhead to the transmission system). While in the Senate, the final legislation was amended to include these Class 1 gathering lines in the pipeline registry and to exempt them from safety inspection requirements until such time as the federal government includes them in national regulation. As of October 2012, 43 unconventional pipeline operators had provided information to the pipeline registry. The resulting data indicated that a total of 2,535.5 miles of unconventional

[120] Text of Act 127 of 2011 available at: http://www.legis.state.pa.us/CFDOCS/Legis/PN/Public/btCheck.cfm?txtType=HTM&sessYr=2011&sessInd=0&billBody=H&billTyp=B&billNbr=0344&pn=2816
[121] PUC Clearinghouse for Act 127 information: http://www.puc.state.pa.us/filing_resources/issues_laws_regulations/act_127_pipeline_act.aspx

gathering and transmission pipelines had been built in Pennsylvania through that date.[122] Assuming approximately 2,726 existing unconventional well pads with 2,535.5 miles of pipeline reported to the PUC, it can be estimated that an average of 1.08 miles of new pipeline has been constructed to service each Pennsylvania well pad.[123]

The recent update to Pennsylvania's oil and gas law, Act 13 of 2012, did not substantially address pipeline issues. Section 8 of that law did, however, adopt the following charge:

> *The Energy Executive of the Governor shall consult with the Department of Environmental Protection, the Pennsylvania Public Utility Commission, State legislators, local government organizations, natural gas industry representatives, conservationists and other affected entities on the issue of pipeline placement for natural gas gathering lines in this Commonwealth. The Energy Executive of the Governor shall submit a report summarizing pipeline placement for natural gas gathering lines and make his recommendations to the General Assembly within one year of the effective date of this section.*

This report to the General Assembly was completed and released by the Governor's Office in December 2012.[124] The report aimed to advance efficient and smart deployment of natural gas gathering lines so as to minimize environmental and community impacts. The report includes thorough background information on pipeline development within the Commonwealth and 16 recommendations to the General Assembly for improved pipeline development in the future (see Appendix F for a full listing of the recommendations).

The report includes recommendations for increased communication between municipal/county officials and industry operators in areas where pipeline construction is likely to occur regarding local plans for current and future community development. Based on this type of dialogue, operators can seek out opportunities to work within the community's comprehensive plan in ways that would maximize shared rights-of-way and offer the least detrimental effect to that community.

RECOMMENDATIONS FOR PENNSYLVANIA'S MANAGEMENT OF MIDSTREAM INFRASTRUCTURE

The Roundtable's deliberations in this area were based on review of existing federal and state policies and on dialogue with key stakeholders, including DEP, the PUC, staff and members of the Pennsylvania General Assembly, and conservation and industry representatives.

In order to promote midstream development that is environmentally protective and economically beneficial, the Roundtable recommends that the Commonwealth and interested stakeholders pursue a suite of important goals, including the following:

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[122] Henderson, Patrick. "Report to the General Assembly on Pipeline Placement of Natural Gas Gathering Lines: As Required by Act 13 of 2012." December 11, 2012. http://files.dep.state.pa.us/OilGas/BOGM/BOGMPortalFiles/Act13/PipelinePlacementReport/FINAL_REPORT.pdf

[123] See Southwestern Pennsylvania Oil and Gas Activity Dashboard in Appendix A for further information on well pad estimates.

[124] Henderson, Pipeline Placement Report.

Crafting legislative and regulatory provisions that, in the public interest, encourage the efficient development of intrastate midstream infrastructure

The Commonwealth should actively seek opportunities for improving the efficiency of intrastate midstream infrastructure development, possibly including the sharing of pipeline capacity to transport produced gas. A focus on intrastate midstream development would provide Pennsylvania landowners and ratepayers with protection through the limiting of eminent domain power associated with interstate pipelines and through the avoidance of increased costs associated with FERC economic regulation.

In addition to sharing infrastructure, such coordinated systems could jointly take advantage of existing rights-of-way that may be available and even co-locate with other utilities or natural gas-related infrastructure. For example, in late 2011, Aqua America and PVR Ventures announced a partnership in which the former would supply natural gas production companies with water for hydraulic fracturing via supply lines in the latter's midstream rights-of-way.

Gathering lines will mostly continue to service the well locations of individual companies, but there may be particular opportunities for sharing capacity on transmission lines. Importantly, as the Pennsylvania transmission system matures, operators will likely begin to cluster unconventional wells nearby those transmission facilities in order to minimize the costs of building gathering lines. While joint efforts could be challenging because the new transmission would have to account for the diverse needs and lease-holdings of multiple operators, approaches such as these could serve the public interest through limiting surface disturbance and preventing the construction of unnecessary or duplicative lines. Identifying opportunities for increased efficiency also could decrease the total costs of infrastructure development, in turn positively influencing consumer rates.

To the degree that operators are proposing common/shared gas infrastructure, sited using environmental best practices, the Commonwealth may wish to consider granting priority review of required permits for these applicants.

Creating and leveraging opportunities for enhanced communication between midstream operators and other key stakeholders

In the near future, the PUC and DEP should consider partnering to convene three in-depth workshops to guide thinking on midstream issues in the Commonwealth:

1. Environmental and community impacts: A targeted discussion on present and future potential issues of concern regarding pipeline infrastructure. Industry; landowners; municipal and county officials; and environmental, conservation, and sportsmen's groups would be natural participants. What are the high-priority concern areas? How are companies proactively addressing them? Are the appropriate state regulatory tools available to manage those areas of concern?
2. Economic and regulatory efficiency: A multi-part dialogue with an initial focus on supporting increased efficiency of infrastructure development. The multiple state and federal agencies that

regulate aspects of midstream development should participate to discuss their own efforts at collaborative oversight and at improving the efficiency of interactions with industry.

3. Building midstream and downstream connections: A unique effort to create a dialogue among those who produce, transport, and use natural gas and related products in Pennsylvania. The workshops that FERC convened in 2012 between midstream operators and electric power generation companies focused on only one tension point in the natural gas supply chain. The challenges that result from these tensions are often national issues, but with important Pennsylvania implications. An initial conversation could include participants such as exploration and production companies, midstream operators, local distribution utilities, power generation companies, transportation sector representatives, and manufacturing companies. The goal would be to identify points of agreement and disagreement that have implications for Pennsylvania's management of its energy portfolio.

These conversations would be aimed at cross-sector relationship building and the identification of critical opportunities and challenges in the improvement of midstream policy and regulation. Due to the diverse interests and aspirations of the participants, the Commonwealth agencies are particularly well suited to serve as neutral conveners. Similar to FERC's approach in its workshops, the PUC and DEP should position themselves as facilitators, providing a framework for discussion and necessary background materials. If any or all of the discussions prove useful, additional follow-up sessions focused on more specific issues are possible.

Ensuring the availability of the necessary expertise and resources for state midstream permitting, planning, and inspection agencies

Acts 127 and 13 contributed to improving the resources available to the PUC and DEP for shale gas-related work. Staffing and resource issues for DEP are addressed at length elsewhere in this report. As midstream activity increases, the PUC also should regularly monitor and report on the sufficiency of its resources, staff, and technical capabilities to meet federal and Pennsylvania public safety regulation and inspection requirements.

Maintaining the protective adequacy of pipeline safety regulations, especially as larger volume, higher pressure gathering and transmission systems are being constructed

Act 127 largely incorporates federal pipeline safety regulations wholesale and enables the PUC to implement them. Any changes to those federal regulations, then, will automatically transfer to Pennsylvania as well. The U.S. Department of Transportation's study of Class 1 pipelines, due in January 2014, and the evolving pipeline activity landscape due to unconventional oil and gas development are two possible triggers for future regulatory updates. Given this arrangement, Pennsylvania should continue to engage with other states and with the federal government to aid in shaping and strengthening any potential safety updates.

Minimizing and avoiding surface disturbance, forest fragmentation, and other impacts on sensitive ecological areas

Most states, including Pennsylvania, lack regulatory power for the review of intrastate pipeline siting determinations. However, in the absence of eminent domain power, individual property owners can impact siting decisions through easement negotiations with midstream operators. In the absence of state review, multiple avenues are available to the Commonwealth and to operators in minimizing the environmental footprint of midstream infrastructure:

- The Roundtable's proposed framework for updating the Oil & Gas Conservation Law, explained earlier in this report, could be one of the strongest tools available to the state in avoiding surface disturbance and forest fragmentation. The Conservation Law framework is designed to rationalize units and prevent the construction of unnecessary well pads to extract the resource. Fewer pads should translate to less pad-related infrastructure, including gathering lines and access roads.
- DEP and other relevant state and federal regulatory agencies should consider creating a voluntary pre-construction consultation process, wherein developers would have the ability to discuss the proposed placement of new midstream infrastructure, particularly large transmission pipelines, and plans to minimize the impacts of that development. The utility and mechanics of such a process could be one of the discussion points for the second workshop outlined above.
- Ecological impacts also can be reduced through the increased use of siting decision support tools, which some operators already employ to great effect. These tools include mitigation banking and the identification and use of low-impact utility corridors where infrastructure can be clustered to avoid other, more sensitive areas. Conservation groups can be important partners in creating and effectively using such tools. For example, the Nature Conservancy has designed and built the Energy by Design protocol, which uses ecological data and computer models to help natural gas infrastructure avoid and/or mitigate impacts on high-value conservation areas.[125]
- The first recommendation in this section, regarding improved efficiency to avoid unnecessary infrastructure, also could be an important method for minimizing the surface footprint of the pipeline system.

Monitoring and responding to the implications of cumulative pipeline placement decisions on the needs of communities and citizens, on the potential for Pennsylvania customers to use gas produced within the state's borders, and on the future use and value of land

County commissioners and other local government officials, while having limited midstream regulatory power, should be consulted throughout the midstream development process as important partners in protecting the public safety and ensuring that operators are aware of and can adapt to local economic,

[125] The Nature Conservancy. Energy by Design. http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/colorado/howwework/energy-by-design-in-colorado.xml

land use, and community plans. While the PUC's Act 127 Pipeline Registry is useful, the legislature should consider amending that act to require not just the submission of pipeline mileage constructed but also the reporting of specific pipeline locations. This type of data would be extremely helpful to community planners and emergency responders.

During these consultations, operators and local officials also should review economic development considerations related to pipeline placement. While the historic analogy of railroads spurring economic development along their path is not quite applicable, there may be opportunities for innovative supply approaches along pipelines to feed various downstream users of natural gas, oil, and natural gas liquids.

In a related vein, midstream operators could have an important role in supporting the expansion of customer access to affordable natural gas service, particularly in rural and underserved areas. The Pennsylvania Senate recently adopted a resolution (SR 29), introduced by Senator Gene Yaw, directing the Center for Rural Pennsylvania to study the potential for increased residential, commercial, and industrial natural gas distribution infrastructure by Pennsylvania's public utilities to un-served and underserved areas of the Commonwealth.[126] Specifically, the Center was directed to study the deployment of natural gas distribution infrastructure by collecting and analyzing information on:

- estimated demand for natural gas service in un-served and underserved areas of the Commonwealth,
- estimated price consumers are willing to pay for access or conversion to natural gas service,
- regional differences in consumer demand and willingness to pay for natural gas service, and
- relevant economic information on the costs and benefits to expand natural gas distribution infrastructure.

SR 29 was adopted March 11, 2013, and the Center is required to report its findings, plans, and recommendations to the General Assembly no later than August 1, 2013.

In June 2012, the Senate passed two related pieces of legislation, both introduced by Senator Yaw and Majority Leader Dominic Pileggi. Senate Bill 739 would amend the Alternative Energy Investment Act to provide $20 million in grants to schools, hospitals, and smalls businesses to obtain access to natural gas service.[127] Senate Bill 738 – the Natural Gas Consumer Access Act – is designed to expand the local distribution and use of Pennsylvania-produced natural gas. The legislation would encourage government office buildings, school districts, institutions of higher education, correctional institutions, and hospitals to convert to natural gas.[128] Additionally, the legislation would:

- establish funding alternatives for gathering and distribution extensions to un-served and under-served areas,
- require the Public Utility Commission to develop rules to produce an orderly system for reviewing current levels of natural gas service and to allow for the orderly expansion of natural gas service to areas not currently served,

[126] Text of SR 29: http://www.legis.state.pa.us/cfdocs/billinfo/billinfo.cfm?syear=2013&sind=0&body=S&type=R&BN=0029
[127] Text of SB 739: http://www.legis.state.pa.us/cfdocs/billinfo/BillInfo.cfm?syear=2013&sind=0&body=S&type=B&bn=739
[128] Text of SB 738: http://www.legis.state.pa.us/cfdocs/billinfo/billinfo.cfm?syear=2013&sind=0&body=S&type=B&BN=0738

- allow municipalities to establish their own pipeline infrastructure,
- require all Pennsylvania natural gas distribution companies to file three-year plans with the Public Utility Commission outlining their plans for expansion and extension of service,
- ease the regulatory hurdles required for becoming a public utility,
- include a system of pipeline tap infrastructure for rural access, and
- provide rate incentives to state utilities that are aggressively acquiring and building new utility franchises in rural areas.

Senate Bills 738 and 739 now go to the House of Representatives for consideration.

Conclusion

From the production to the distribution stages, the natural gas midstream system has a wide range of potential impacts on individual landowners, the environment, public health, the local and state economy, and the individual consumer. As midstream infrastructure in Pennsylvania continues to expand to serve new producing wells, the short- and long-term consequences of this development will require careful monitoring and management with the best interests of the public in mind.

The recommendations contained in this report would improve the Commonwealth's ability to minimize environmental damage; enhance the efficiency of development; monitor and protect the public's safety; and manage the impacts of cumulative pipeline placement decisions on Pennsylvania's communities, landowners, and citizens.

APPENDIX F: RECOMMENDATIONS OF THE REPORT TO THE GENERAL ASSEMBLY ON PIPELINE PLACEMENT OF NATURAL GAS GATHERING LINES

The following is a listing of recommendations, excerpted from the Report to the General Assembly on Pipeline Placement of Natural Gas Gathering Lines released by the Office of Governor Tom Corbett in December 2012 to inform the Pennsylvania General Assembly about the midstream development in Pennsylvania. The report lays out the following 16 recommendations:

The full report can be found at
http://files.dep.state.pa.us/OilGas/BOGM/BOGMPortalFiles/Act13/PipelinePlacementReport/FINAL_REPORT.pdf

1. Legal impediments to the sharing of State and local roadway rights-of-way should be repealed or modified to allow for and encourage the use of existing rights-of-way and minimize new surface disturbances. For example, Section 3 of the Limited Access Highway Law (Act 402 of 1945), was repealed in part by Act 88 of 2012 to encourage the creation of Public-Private Partnerships and should be further repealed so as to permit the sharing of rights-of-way where appropriate.
2. The Public Utility Code should be amended to clarify that the sharing of pipeline capacity, for purposes of increased efficiency and smarter deployment of gathering lines, shall not constitute public utility status.
3. In conjunction with the U.S. Army Corps of Engineers, State and federal stream-crossing permits, including those required in 25 Pa.Code Chapter 105 and the Pennsylvania State Programmatic General Permit-4, should be aligned to remove existing duplications related to the protection and preservation of historic, cultural, and natural resources while increasing predictability in planning and permit processing time.
4. The Department of Environmental Protection should regularly review its Permit Decision Guarantee policy to ensure that administratively complete permits are reviewed in a timely manner, and where able, consider providing expedited review for projects that share rights-of-way or otherwise demonstrate steps that minimize conflicts with historic, cultural, or natural resources.
5. The Pennsylvania Natural Diversity Inventory environmental review tool should continue to be enhanced so as to assist in the up-front avoidance of conflicts with threatened and endangered species, flora, fauna, habitat, and other sensitive natural resources and increase certainty in decision making and long-term planning of pipeline operators.
6. The Underground Utility Line Protection Law, commonly referred to as “PA One Call,” should be amended to include mandatory participation beyond the requirements of 58 Pa.C.S.§3218.5, including specific location registration of all gathering lines.
7. The Public Utility Commission should work with PA One Call for purposes of creating a state map of unconventional natural gas pipelines.
8. County planning offices should be encouraged to work with drilling operators and gathering line companies so that operators and companies understand current and future development plans and can seek to maximize opportunities to share rights-of-way and pipeline capacity.

9. In accordance with standards adopted by the Department of Environmental Protection that ensure the protection of water quality, permits seeking to utilize horizontal directional drilling to cross under waterways and other topographic land features, such as steep inclines and declines, should be prioritized during review to recognize their potential to avoid surface disturbances, impacts on sensitive lands, forest fragmentation, viewsheds, and direct intersection with waterways.
10. Pipeline operators should collaborate to standardize right-of-way markers, including the spacing of markers, contact information for the pipeline operator, location of the pipeline, notation to contact PA One Call prior to any excavation, and other critical information. Multiple pipelines in a common right-of-way should be noted on the marker.
11. Landowner outreach efforts, such as those of the county extension offices, should be enhanced to expand landowner awareness of the opportunities, implications, standard terms and conditions, and other important information related to engaging in the leasing of pipeline rights-of-way.
12. County and municipal governments should be encouraged to consult with gathering line operators to better understand the implications of a proposed project on a county or municipal comprehensive plan.
13. The Public Utility Commission and the Department of Environmental Protection should continue their efforts at coordination and public outreach to further citizens' understanding of the respective roles each agency plays in the review of permitting, siting, and placement of natural gas gathering lines.
14. The Governor's Center for Local Government Services, in cooperation with the Public Utility Commission and the Department of Environmental Protection, should work with local government associations and county planning offices to assist in disseminating information on applicable laws, regulations, and other standards related to the construction and installation of natural gas gathering lines.
15. Pipeline operators should be encouraged to consult with the appropriate experts to replant rights-of-way with vegetation that fosters habitat development for wildlife.
16. Consideration should be given to utilization of existing or new pipeline pathways near existing or potential industrial development to maximize job creation, lower energy costs, and secure the nation's energy independence.