



BETHEL-BATAVIA PIPELINE



BUILDING A SMARTER ENERGY FUTURE®

February 2022

BETHEL-BATAVIA PIPELINE

A GROWING DEMAND FOR NATURAL GAS

The eastern portion of our Ohio service area continues to see job and population growth – businesses want to locate here, and people want to live here. Infrastructure is needed to support this growth – from highways and roadways to public utilities like natural gas and electricity. So that we can continue to serve our Ohio customers, we are constructing a new natural gas pipeline in Clermont County.

KEY PIPELINE BENEFITS



SUPPORTS GROWTH

The Bethel-Batavia Pipeline, will allow us to meet the increased demand on our natural gas system in our eastern Ohio service area.



PROVIDES AVAILABLE AND AFFORDABLE NATURAL GAS SUPPLY

Whether for new neighborhoods or other large-scale construction projects, natural gas is economical and a preferred source of energy.



BOOSTS ECONOMIC DEVELOPMENT

Having an ample supply of natural gas encourages residential and commercial development, which brings jobs and tax revenue.

PIPELINE FACTS AND FIGURES

- **NATURAL GAS PIPELINE** from Bethel to Batavia
- **14-16 MILES LONG**
- **CONSTRUCTED WITH STEEL PIPE** with a fusion-bonded epoxy coating to prevent rust
- **STATE-OF-THE ART SAFETY AND INSPECTION FEATURES**

“Ensuring that Clermont County has sufficient infrastructure to support future economic development is an important function of local government. For many years the eastern rural areas of our county have been overlooked as our business sectors continue to expand in the direction of Batavia and Bethel. Duke Energy’s commitment to the BB Pipeline Project will not only bring long-awaited residential gas service to the eastern areas of Clermont County but will also ensure that gas supplies are sufficient in these areas to support future business expansion decisions here in our county. The BB Pipeline Project will provide meaningful construction jobs as miles of pipeline are constructed, provide existing homeowners and businesses natural gas service, and provide needed natural gas service to the SR 32 Eastern Appalachian Corridor. The BB Pipeline Project is a game changer for residents and businesses in eastern Clermont County.”

- Commissioner David L. Painter

SCHEDULE

Route studies
Spring 2020

Survey field work and design
Summer 2020

Public information sessions
Fall 2020

OPSB application filing
January 2021

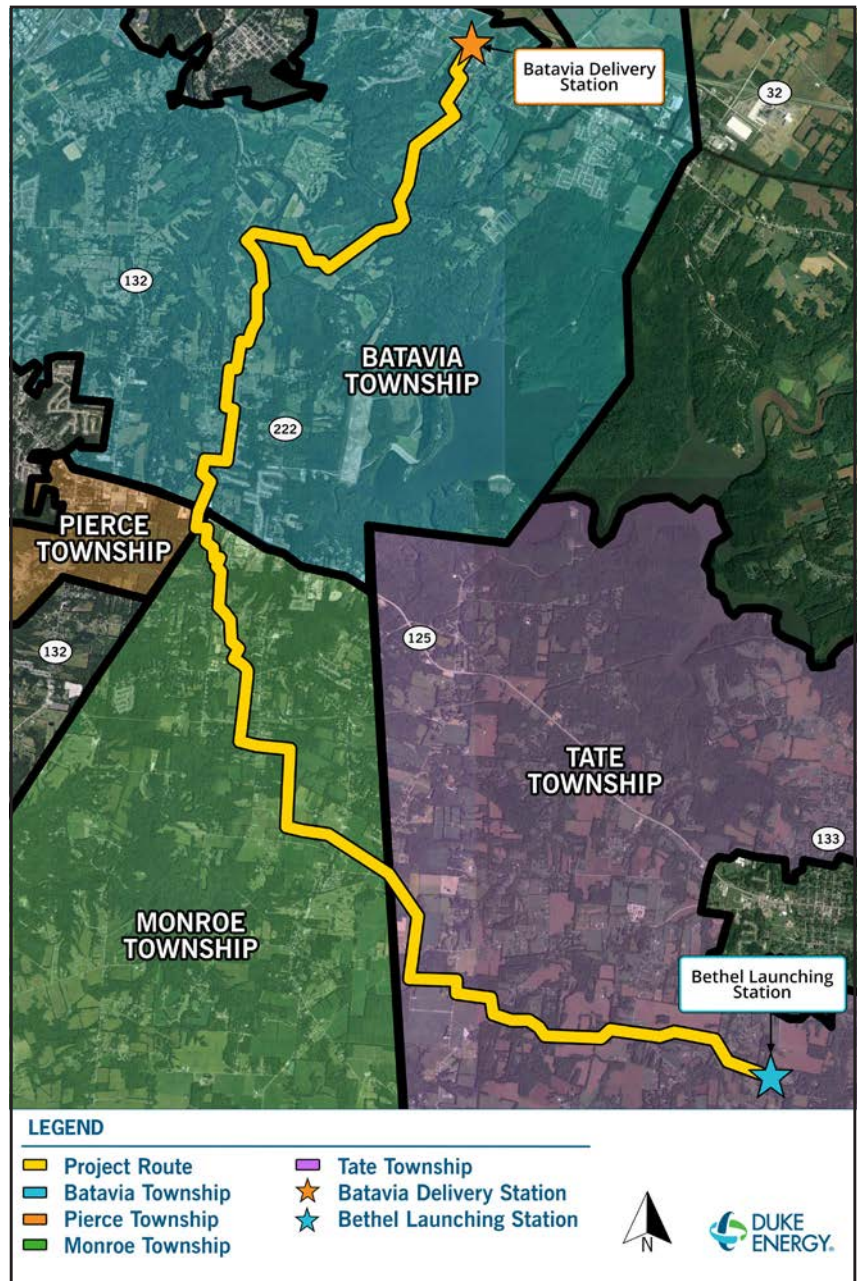
OPSB application approved
July 2021

Construction
**December 2022 through
December 2023**

Restoration
Spring 2024

CONTACT US

For any questions about the project, please email the project team at BBPipeline@duke-energy.com, or call the project hotline at **513.287.2130**. Visit the project website at duke-energy.com/bbpipeline.



APPLICATION AND OVERSIGHT

Our application to the Ohio Power Siting Board to construct the Bethel-Batavia Pipeline was approved in July 2021. The pipeline will be built, operated and maintained in accordance with U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) standards. The Public Utilities Commission of Ohio (PUCO) will have the responsibility of supervising all inspections. Duke Energy is therefore subject to regulation at both the state and federal levels.

DUKE ENERGY OHIO AND ECONOMIC DEVELOPMENT

DUKE ENERGY OHIO

We operate natural gas assets in all or parts of eight southwestern Ohio counties: Adams, Brown, Butler, Clermont, Clinton, Hamilton, Montgomery and Warren.



Learn more at [duke-energy.com](https://www.duke-energy.com).



Duke Energy Ohio supplements its natural gas supply with the receipt of renewable natural gas from the Rumpke Landfill in Colerain Township.



We are transforming our customers' experience, modernizing the energy grid, generating cleaner energy and expanding natural gas infrastructure to create a smarter energy future for the people and communities we serve.



As a Fortune 150 company, we are one of the largest energy holding companies in the U.S. We provide natural gas in five states and electric in six states and operate wind and solar power facilities in 14 states.

QUICK FACTS ABOUT US

Duke Energy Ohio operates

5,783 miles of natural gas distribution mains

62 miles of natural gas transmission mains

411,656 natural gas service lines

22 city gate stations* connected to five interstate pipelines: Columbia Gas Transmission, KO Transmission, Texas Gas Transmission, ANR Pipeline and Texas Eastern Transmission

**A "city gate" is the point or station at which a gas distribution utility receives natural gas from an interstate pipeline transmission company. Natural gas is typically measured, the pressure is regulated and gas is odorized at a city gate. A mercaptan blend is injected into the natural gas stream, proportionate to flow, at a rate where natural gas is readily detectable at 1% gas and 99% air to a person with a normal sense of smell.*

2020 COMPANY RECOGNITION Duke Energy was named to the Dow Jones Sustainability Index for North America for the 15th consecutive year, and Fortune magazine's "World's Most Admired Companies" list for the second year in a row. Forbes magazine named Duke Energy as one of "America's Best Employers."



INVESTING IN OHIO'S ENERGY AND ECONOMIC FUTURE

Duke Energy Ohio and its predecessor companies have provided safe, clean, affordable and reliable electric and natural gas to customers for over 180 years. Today, we are listening and anticipating needs as we implement creative, data-driven solutions that deliver value to our 718,000 electric and 432,000 natural gas customers. We are dedicated to continued economic development and to making a positive impact in the communities we serve.

DEVELOPMENT SERVICES

The nation's top site selectors, real estate brokers, economic developers, and corporations have seen us as a trusted advisor for years. Looping us into a project ensures the best solutions for the specific needs at hand. We have a local Economic Development Team that serves as a one-stop shop to help communities and companies find solutions to growing needs. Our services include:

- Early stage project development
- Electric rate calculations, including incentives
- Site visit coordination, support and vetting
- Early preview of sites for large energy users
- Industrial building searches and screening
- High demand sector leads provided by our corporate Business Recruitment Team



JOB AND ECONOMIC IMPACT

Throughout Ohio and Kentucky, we employ approximately 2,200 people and provide an annual economic infusion of over \$536 million.

\$181 MILLION paid in salaries and wages

\$270 MILLION paid in state and local taxes

\$85 MILLION in contracts with diverse suppliers



CAPITAL INVESTMENT

Over the past five years, we have invested over **\$1.2 billion in infrastructure** to keep power and natural gas flowing to homes, businesses, schools and more across southwest Ohio



GIVING BACK

We care about strengthening and investing in the communities we serve. Annually, we provide:

\$2.8 million investment in economic development and urban revitalization initiatives

\$1.1 million in employee and retiree charitable contributions along with 11,800 hours of volunteerism

ROUTING

ROUTING PROCESS

Our team of highly skilled project engineers and environmental scientists follow a detailed process when determining possible project routes and/or route corridors for any new natural gas pipeline project. The criteria are generally broken down into three main categories:

- Cultural and land use
- Ecological
- Technical/engineering



CULTURAL AND LAND USE STUDIES

Cultural and land use factors taken into consideration include but are not limited to the following:

- Extent of disturbance and/or proximity to:
 - Residential properties
 - Potentially sensitive land uses (hospitals, places of worship and schools)
 - Cemeteries
 - Historic places
 - Parks, conservation and recreation areas
 - Wildlife habitats, woodlots, wetlands and streams
- Number of properties affected
- Ability to maintain traffic flow and property access
- Proportion of routes paralleling existing roads, railroads, and other linear utility infrastructure
- Economic development opportunities
- Number of road and railroad crossings
- Potential conflicts with existing utilities
- Length of considered routes
- Accessibility, terrain and slope
- Safe installation and construction workspace availability
- Engineering challenges



ECOLOGICAL AND ENVIRONMENTAL STUDIES

The formal project siting process and the associated environmental permitting approvals require a wide variety of environmental studies before a project can receive approval. The applicable environmental studies for potential project routes include but are not limited to:

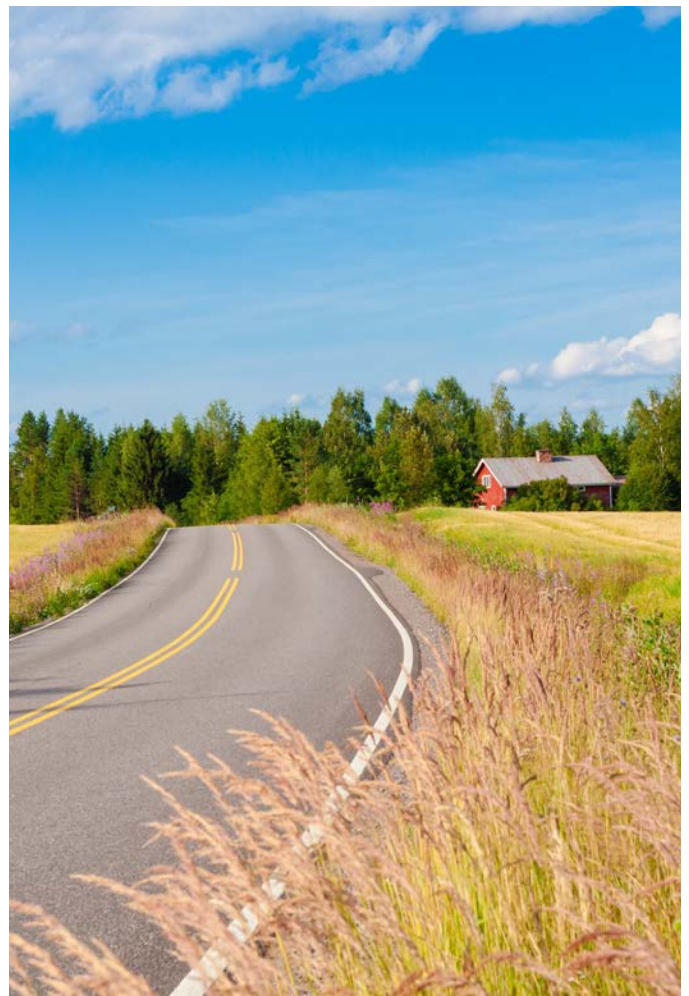
- wetland and stream field evaluation and reporting
- threatened and endangered species and habitat assessments
- cultural resource assessments
- stormwater pollution prevention assessment that is developed into the project Stormwater Pollution Prevention Plan
- Phase I Environmental Site Assessment

In addition to the above-mentioned studies, the Ohio Power Siting Board also requires:

- evaluations of land use impacts
- a siting/routing analysis
- soil and slope evaluations
- a description of public interaction activities
- construction noise assessment
- evaluation of potential impacts on agricultural lands
- an assessment of potential impacts on other unprotected categories of plants and animals

TECHNICAL AND ENGINEERING STUDIES

Our team of geologists conducts studies to determine the subsurface conditions and their suitability for proposed pipeline routes and construction methods. As part of the geotechnical investigation, soil samples are collected and analyzed, as well as other testing to determine the corrosivity of the soils to determine what, if any, mitigation measures may be needed. Adjustments to the routing and construction methods are then made to address any anomalies or unsuitable conditions that could be encountered.



SAFETY

SAFETY IS A TOP PRIORITY

Safety, security and environmental stewardship are core values at Duke Energy. Our infrastructure projects are designed, constructed, tested, maintained, and operated to the highest safety standards as required by law. We employ highly trained staff to operate our pipeline systems and work closely with emergency responders to ensure they have the resources and information to assist in any situation involving the pipeline.

SOPHISTICATED OPERATIONS AND MAINTENANCE PROGRAM

Once the pipeline is commissioned, there are requirements mandated by the code of federal regulations that ensure it is maintained and operated safely according to a robust program. The requirements include:



24/7/365 AROUND-THE-CLOCK monitoring of gas pressures



REMOTE CONTROL SHUT-OFF VALVES used to support maintenance activities and to shut off the gas supply if necessary



CATHODIC PROTECTION coating on steel pipelines to prevent corrosion

Duke Energy Considered an Industry Leader in Replacing Aging Infrastructure

We understand the importance of replacing aging infrastructure. Over 15 years ago, we proactively implemented an accelerated main replacement program (AMRP) to remove 1,400 miles of bare steel and cast iron natural gas mains dating back to the 1800s. The AMRP was completed in 2015, with Duke Energy recognized as a national leader in replacing infrastructure.



CALL BEFORE YOU DIG

State law requires you or a contractor to call 811 to have all utility lines located and marked several days before you dig. This is a free service designed to keep our communities safe. For more information visit call811.com.



**Know what's below.
Call before you dig.**



ADVANCED OPERATIONS AND MAINTENANCE PROGRAM

ANNUAL SURVEYS: A leak survey is performed over the entire length of the line by patrolling over the top of the pipe with leak detection equipment, and a cathodic protection survey is performed and data is taken along the pipe to ensure the line is not corroding. The remote control shut-off valves also are inspected annually to ensure the equipment is in the proper working condition.

LINE PATROLS: Line patrols are performed by walking the route, observing soil conditions, the coloration of the surrounding vegetation, encroachment concerns, and making sure pipeline markers are in place.

IN-LINE INSPECTIONS: A safety standard required by the code of federal regulations is to design and construct this type of pipe so it can accommodate in-line inspection tools (as shown below). In-line inspection equipment utilizes non-destructive techniques to detect, measure, and record irregularities in pipelines. This data is used to determine the condition of the pipeline and identify potential safety concerns.

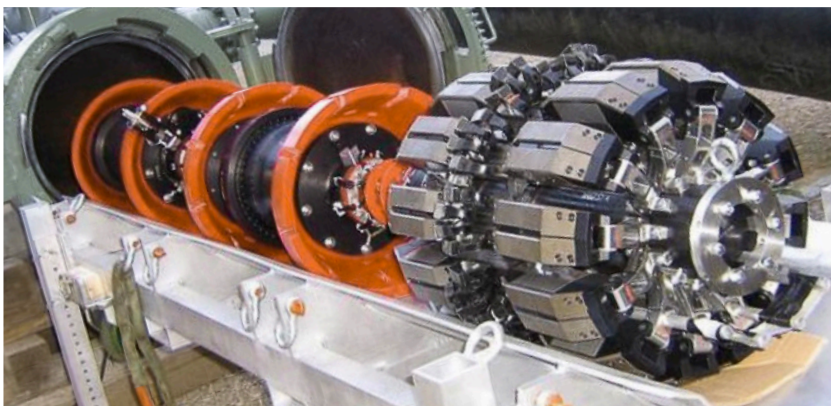
CONSTRUCTION AND PROJECT PLANNING:

As required by law, Duke Energy Ohio also locates its facilities for excavations. An inspector will be dispatched to a pipeline excavation site to observe and ensure the integrity of the facility when a third party calls 811 for an excavation. In addition, we will locate its facilities for planning projects. This aids in identification of facilities on plans to help reduce third-party damage.

PUBLIC EDUCATION PROGRAMS are conducted for landowners, elected officials, emergency responders and others.

TRAINING PROGRAMS offered to local emergency responders and community leaders through Duke Energy's new Pipeline Safety Academy located in Cincinnati, Ohio.

YELLOW CAPPED ABOVEGROUND PIPELINE MARKERS are placed along the right of way to alert the public to the presence of a pipeline.



Although Duke Energy is accountable for inspecting its pipelines, the Natural Gas Pipeline Safety division of the Public Utilities Commission of Ohio audits its inspections on a regular basis to ensure compliance with Ohio laws and federal laws governing safety.

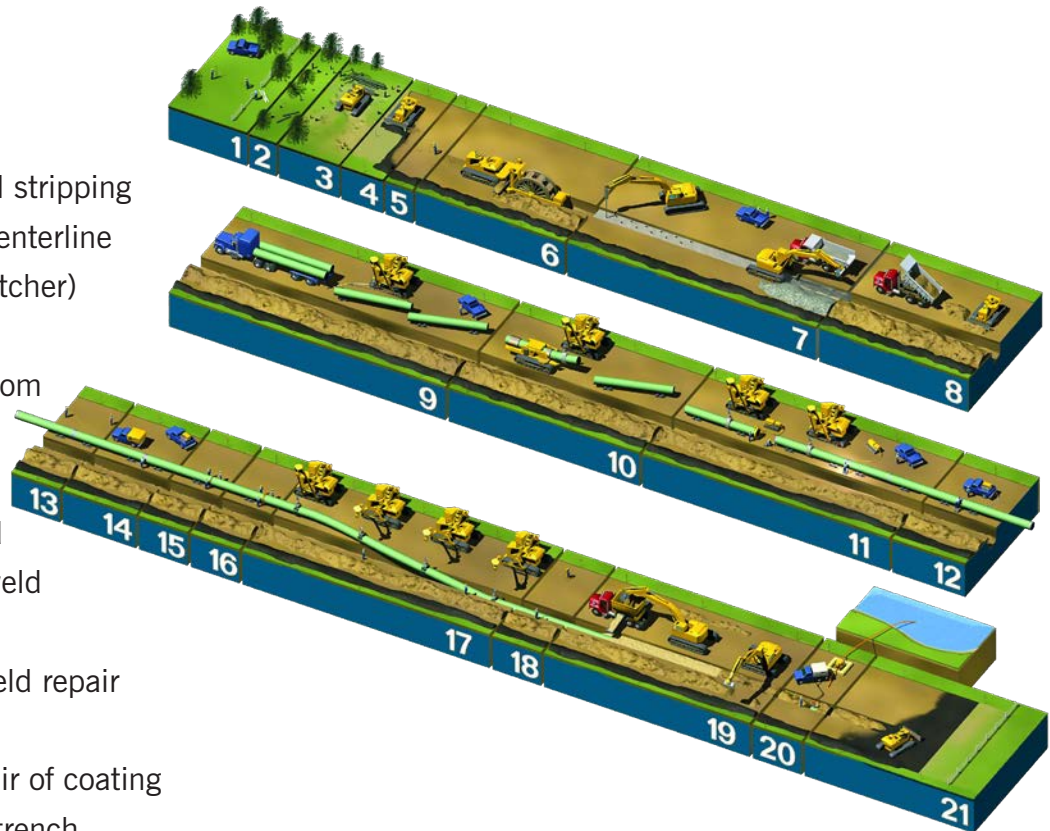
CONSTRUCTION AND RESTORATION

CONSTRUCTION SEQUENCE

We realize that pipeline construction is disruptive and challenging for customers, but we are committed to working with each and every neighborhood along the route to make the process as smooth as possible. Our goal is to minimize construction impacts, so our teams dedicate much of their planning time to evaluate each step of the process: preconstruction, construction, restoration and long term. We coordinate our construction efforts with local community leaders to ensure pedestrian and traffic safety throughout construction.

Pipeline construction occurs in a deliberate sequence, which starts with land surveys and ends with full property restoration as shown in the graphic below. The steps with the most impact on the community are generally steps 4-15 when the heavy construction is taking place. During this phase, it helps to consider the many long-term benefits of a new pipeline constructed with state-of-the-art materials and inspection and monitoring equipment.

1. Survey and staking
2. Clearing
3. Front-end grading
4. Right-of-way topsoil stripping
5. Re-staking trench centerline
6. Trenching (wheel ditcher)
7. Trenching (rock)
8. Padding trench bottom
9. Stringing pipe
10. Field bending pipe
11. Line-up, initial weld
12. Fill and cap, final weld
13. As-built footage
14. X-ray inspection, weld repair
15. Coating field welds
16. Inspection and repair of coating
17. Lowering pipe into trench
18. As-built survey
19. Pad, backfill, rough grade
20. Hydrostatic testing, final tie-in
21. Replace topsoil, final cleanup and restoration





Heavy equipment such as excavators, cranes, rough terrain forklifts, track hoes, dump trucks, sidebooms, and welding equipment are often necessary to construct large natural gas pipelines. While construction of a pipeline can take months, this equipment and associated construction on individual properties is much shorter in duration. Sidebooms (like the one shown) are used to move pipe during the project. The sideboom lifts the pipe after it has been welded together and gently lays it into the trench.



RESTORATION

We try to construct each pipeline with the least possible impact on property owners and the environment; however, pipeline construction and installation often requires disturbances to private property. Restoring property is an important part of that construction process.

There are temporary easements, which are only granted over a short duration for construction purposes, and permanent easements, which grant us access to a specific portion of property during the life of a pipeline. Any property disturbed by construction will be restored by Duke Energy and/or its contractors, in accordance with the easement agreement. The list of what can be restored include, but is not limited to:

- **FENCING**
- **SMALL SHRUBS AND LANDSCAPING**
- **ROADWAYS AND SIDEWALKS** as long as the existing grade is not changed



The following may not be replaced or built in areas where permanent easements are needed in order for us to maintain access for future infrastructure work.

- **LARGE TREES**
- **HOMES OR GARAGES**
- **SWIMMING POOLS**

Depending on the time of year that construction takes place, temporary restoration will occur as construction progresses. In many cases, crews will wait to do final restoration until construction on the entire pipeline is complete and the pipeline is operational. Often, restoration cannot be done in colder months when the asphalt plants are closed and landscaping cannot be replaced because the ground is frozen or the temperatures are not warm enough for planting/seeding.

We stand behind the restoration agreements made with each property owner during the easement process.

EASEMENTS



Natural gas pipelines, along with other utility infrastructure such as water and sewer lines, require long expanses of property in order for the lines to be installed. Placing pipelines on private and public property is often necessary, and is a safe way to build and maintain a pipeline. An easement is the legal agreement that gives us the right to use, not own, specific portions of land for certain purposes. For many people, their first experience with an easement occurs when a public utility requires use of the owner's property. Hopefully this handout helps answer some of the most common questions about easements.

WHY ARE EASEMENTS NECESSARY?

We need easements to gain access to and use private and public property (parks, schools, civic centers, etc.) during the construction and maintenance of natural gas pipelines.

HOW DOES DUKE ENERGY ACQUIRE EASEMENTS?

A Duke Energy representative contacts property owners directly where easements are needed to discuss terms for acquiring access through their land. When terms of the easement agreement are reached, a legal document is drawn up and signed by the owners. The easement is then recorded in the county recorder's office.



DOES DUKE ENERGY PAY FOR EASEMENTS?

Yes. Easement fees are negotiated between Duke Energy and property owners at fair market values, depending on the size and location of the easement. We study recent sales and values of comparable properties within a reasonable distance of the proposed pipeline to get an idea of the market value of the land. The price of an easement will be less than the market value because we will not be buying the property outright, only the right to use it for a specific purpose.

WILL ALL LANDOWNERS BE PAID THE SAME PRICE FOR THEIR EASEMENTS?

Not necessarily. We will make every effort to explain our figures fully and completely and will negotiate in good faith. The actual amount of compensation paid will be based on the specific conditions affecting the value of the property where the easement is located.



IF AN EASEMENT IS GRANTED, WHO WILL OWN THE LAND?

The property owner will maintain ownership of the property, subject to the easement rights granted to Duke Energy.

CAN I USE THE EASEMENT AREA ON MY PROPERTY AFTER THE PIPELINE IS BUILT?

Yes. After the pipeline has been constructed, owners can use their property as before, with a few exceptions. We need to review any construction plans prior to installation of roadways and sidewalks.



Other large permanent structures such as homes, garages and swimming pools are not allowed because we need to maintain access to this area for any future pipeline work.

WILL DUKE ENERGY DIG UP MY YARD IN THE EASEMENT AREA?

Yes. The property will be disrupted temporarily during construction of the pipeline. A Duke Energy representative will contact property owners where easements are needed and work with these owners to identify any special concerns. The pipeline installation work will be performed within the easement area or public right of way. Please note there will be temporary road disruptions during the construction and installation of the pipeline.

WILL MY PROPERTY BE REPAIRED AFTER THE PIPELINE IS INSTALLED?

Yes. Any property disturbed by construction will be restored, as nearly as is practical, to its preconstruction condition. All of this will be discussed in easement negotiations between property owners and Duke Energy.



HOW OFTEN WILL YOU NEED TO USE THE EASEMENT AFTER THE PIPELINE IS INSTALLED?

We may need to access the easement periodically for inspections and maintenance. We would be responsible for repairing any damage we cause during future work. We will reserve the right to repair or replace the pipeline in the future if necessary.

I'M BUYING A HOUSE IN THIS AREA. HOW CAN I FIND OUT IF THERE IS AN EASEMENT ON MY PROPERTY?

Check the deed to your house and look at the records at the county courthouse. The sale of a property usually includes a title search, which may reveal easements on your property.



