



## ENERGY CENTER

The Center for Global Energy,  
International Arbitration and  
Environmental Law

[ABOUT](#)[RESEARCH AND PROJECTS](#)[EVENTS](#)[STUDENTS](#)[NEWS](#)[BLOG](#)

# New FERC policy on cost recovery for natural gas facilities modernization could accelerate repair of pipeline leaks

[Romany Webb](#)

December 8, 2014

With concern growing that leaking natural gas pipelines may trigger deadly explosions, threaten public health and worsen climate change, the Federal Energy Regulatory Commission (FERC) is looking at new ways to support pipe repair and replacement. Late last month, FERC proposed [new rules](#) that would allow operators of interstate natural gas pipelines to recover certain capital expenditures on infrastructure upgrades through a capital tracker. In broad terms, the tracker mechanism enables a pipeline operator to recover capital costs annually, rather than carrying those costs over until its next rate case. However, it is not just industry that will benefit from use of the mechanism. In addition, its use may also have broader social benefits, facilitating the replacement of leaking pipelines which threaten public safety and damage the environment.

Several recent pipeline explosions – including major incidents in California and Pennsylvania – highlight the safety threat posed by natural gas leaks. I have [previously written](#) about federal regulations (49 CFR Part 192) designed to prevent pipeline explosions by requiring the prompt repair of leaks posing a hazard to persons or property. These regulations do not, however, require the repair of non-hazardous leaks which may be left indefinitely with serious environmental consequences.

Pipeline leaks are a major source of methane; a potent greenhouse gas, with a global warming potential 21 times that of carbon dioxide over a 100-year time horizon and even greater relative impacts over shorter periods. Several components of the pipeline system are prone to leakage, including compressors, valves, pumps, flanges and pipe connectors. Leaks are most likely to originate from older pipes, which are commonly made of cast iron or unprotected steel and therefore prone to corrosion.

As [reported previously](#), a recent [study](#) by the Environmental Defense Fund (EDF) found a positive correlation between the use of corrosion-prone piping and natural gas leaks. The study used Google Street View cars equipped with methane concentration analyzers to identify gas leaks in Boston, Indianapolis and Staten Island. The focus in each city was on leaks from pipelines used to deliver natural gas to residential, commercial and industrial customers (i.e., distribution pipelines).

A high rate of leakage (one leak per mile) was detected in Boston and Staten Island, where corrosive piping makes up 20 and 45 percent of the distribution system respectively. This is in stark contrast to Indianapolis, where corrosive piping makes up less than one percent of the system. Unsurprisingly, leakage rates in that city were significantly lower, with one leak detected every 200 miles.

These results are consistent with previous research finding significant leakage from aging pipeline systems. One study, published in [Environmental Pollution](#) in 2013, identified 3,356 leaks thought to be from old cast iron pipes in Boston. A 2014 study, published in [Environmental Science and Technology](#), found 5,893 leaks in Washington D.C. likely resulting from old pipelines.

Compared to distribution pipelines, there has been little research into leaks from the gas transmission system (i.e., the network of pipes used to transport natural gas from supply fields to local distribution companies and large volume customers). Nevertheless, there is reason for concern. Roughly 60 percent of gas transmission pipelines are more than 40 years old, with over half of these constructed prior to 1960. These antiquated pipelines may be corroded and/or have other defects giving rise to leaks.

Despite this, current policies do little to encourage and may actually discourage the replacement of aging transmission infrastructure. Policy makers have recently sought to address one of the more significant issues, relating to the recovery of replacement costs in pipeline rates.

Regulation of natural gas pipelines is shared between the federal government and the states. At the federal level, the Natural Gas Act (15 U.S.C. § 717 et seq.) authorizes FERC to regulate pipelines crossing state borders (known as interstate pipelines). Other, intrastate pipelines are regulated at the state level by public utility commissions.

Under the Natural Gas Act, FERC must ensure that the rates charged by interstate pipeline operators are just and reasonable and not unduly preferential or discriminatory. FERC regulations (18 CFR, Part 284) require pipeline operators to design rates so as to recover their costs on the basis of projected units of service. Each operator must file a rate case outlining its forecast costs over the next regulatory period and establishing rates for the recovery of those costs. Where costs are lower than forecast, the operator can keep the resulting over-recovery. Conversely, any under-recovery due to higher than forecast costs must be borne by the operator.

While operators can recover the capital costs of pipeline replacements in their rates, recovery typically does not occur the next rate case is filed. This gives rise to a regulatory lag – a period during which the operator must carry the cost of its capital investment – creating a disincentive for the replacement of leak-prone pipes.

This disincentive can be removed by adopting a capital tracker, which allows the pipeline operator to recover capital expenditures on infrastructure replacements before the filing of a rate case. To this end, a growing number of states are permitting the use of tracker mechanisms by local distribution pipeline operators. (For a list of states with such mechanisms, see the Department of Transportation's [website for pipeline safety awareness](#).) Notably however, FERC has traditionally refused to allow interstate transmission pipelines to use cost trackers. This now looks set to change.

In a proposed policy statement published in the [Federal Register](#) on November 26, FERC noted that increasing concern over pipeline safety, together with stricter limits on greenhouse gas emissions, will likely force pipeline operators to invest more heavily in infrastructure upgrades. To ensure the timely recovery of these capital investments, FERC is proposing to allow pipeline operators to establish tracker mechanisms to recover the costs of upgrades required to meet safety and environmental regulations. Use of such mechanisms would be subject to five conditions, namely:

- Review of existing rates:** a pipeline operator proposing to adopt a tracker mechanism must establish that its base rates are just and reasonable and reflect current costs and revenues. FERC has suggested that operators may meet this requirement through negotiation with its customers or by filing a full rate case when implementing the tracker. FERC is also seeking comments on other approaches to meeting the requirement.
- Eligible facilities:** a tracker can only be used to recover costs associated with the modification of existing facilities to address environmental and safety concerns. Costs associated with general system maintenance cannot be recovered through the tracker. A pipeline operator must identify the projects eligible for recovery, the facilities to be upgraded through those projects, and the maximum capital costs for each project covered by the tracker.
- Avoidance of cost shifting:** pipeline operators must design their tracker mechanisms so as to ensure that costs are not shifted to captive customers.
- Periodic review:** the tracker mechanism must be subject to periodic review to ensure that the pipeline operator's base rate, and any surcharge added to base rate, remain just and reasonable.
- Shipper support:** any pipeline operator seeking to use a tracker mechanism must work collaboratively with customers to obtain their support for the mechanism. However, support from all customers will not be required for approval of the tracker.

In addition to these matters, FERC is also considering various other issues relating to the use of capital trackers. Interestingly, FERC has requested comments on whether capital costs incurred to minimize emissions from pipeline facilities should be recoverable through the tracker mechanism, even if those costs are not required to comply with environmental regulations. This could have significant environmental benefits, creating an incentive for pipeline operators to go beyond the regulatory requirements and replace all leaking pipes. However, it may face opposition from ratepayer advocates concerned about the potential for unnecessary replacement of pipelines in good working order. The [Conservation Law Foundation](#) has suggested, as a possible middle ground, enabling recovery of capital expenditures on specified types of pipeline that are prone to leaks. At a minimum, pipeline operators should be able to recover the capital costs of replacing pipes made from cast iron and other corrosive materials.

[climage change](#) [Federal Energy Regulatory Commission](#) [leaking natural gas](#)

[pipelines](#) [pipe repair and replacement](#) [public health](#)

## Leave a Reply

Your email address will not be published. Required fields are marked \*

Name \*

Email \*

Website

Comment

POST COMMENT

The Energy Center blog is a forum for faculty at the University of Texas, leading practitioners, lawmakers and other experts to contribute to the discussion of vital law and policy debates in the areas of energy, environmental law, and international arbitration. Blog posts reflect the opinions of the authors and not of the University of Texas or the Center for Global Energy, International Arbitration and Environmental Law.

### Popular Tags

Texas  
water  
drought  
energy  
fracking  
endangered species  
natural gas  
groundwater  
court cases  
conservation  
TCEQ  
LNG  
pollution  
cases  
Proposition 6