

ACT FOR UTILITY TRANSITION TO USING RENEWABLE ENERGY (FUTURE)

H.2849/S.1940

Road Map to the FUTURE Act

The FUTURE Act focuses on the problems with the distribution of natural gas in the Commonwealth. It addresses the crumbling infrastructure and immediate safety concerns in the wake of the September 2018 disaster in the Merrimack Valley. At the same time, it creates a path to the future by permitting gas companies to distribute renewable thermal energy to heat and cool our homes, provide hot water, and cook our food. Together, these measures will reduce greenhouse gas emissions and our Commonwealth's dependence on fossil fuels as well as allow us to achieve our goal of a safer, healthier, livable climate for all.

The FUTURE Act includes:

- Stronger oversight of gas companies by the Department of Public Utilities (DPU) to expedite fixing gas leaks;
- Clear rules to strengthen gas safety standards for workers and the public;
- Increased coordination and transparency among the DPU, gas companies, and municipalities in the repair and replacement of leak-prone pipes;
- Funding, financial incentives, and renewable energy credits to encourage gas companies to distribute thermal renewable energy instead of gas, avoiding future stranded assets;
- Flexibility for municipalities to choose alternatives, such as district energy;
- Requiring the DPU to accommodate the mandates of the Global Warming Solutions Act (GWSA); and
- Requiring the DPU to consider equitable access to energy efficiency and renewable energy as well as the public's health and safety in its decisions as it regulates gas and electric utilities.

The FUTURE Act also establishes a Governor's Commission to make legislative and policy recommendations to ensure a safe, just, and expeditious transition to renewable energy by the year 2050.

Road Map to the FUTURE Act

This road map facilitates analysis and understanding of the FUTURE Act. It organizes provisions of the bill by issue and includes a brief description of the

purpose of the provisions, as well as section numbers for easy reference to the actual language of the FUTURE Act.

I. Gas safety and gas leaks

In spite of legislative mandates in 2014 and 2016 to classify and repair gas leaks, there are still at least 18,000 gas leaks detected each year throughout the Commonwealth's crumbling gas distribution system, polluting the air, killing street trees, and endangering neighborhoods, all while costing us – the ratepayers – money as we pay for the leaked gas. About as many new leaks appear each year as existing leaks are reported as repaired. We are not making progress. The Merrimack Valley gas explosions resulted in one person dead, 25 people injured, 5 homes destroyed, and 131 structures damaged, reminding us that gas is an inherently dangerous and explosive fuel, requiring vigilance and strict safety standards.

The FUTURE Act builds on previous legislation relating to gas leaks by requiring:

- Emergency preparedness. Gas companies required to notify a municipality's fire and police departments within an hour or less of detecting Grade 1, Grade 2, or Grade 3 leaks. *Sections 56, 57, and 58.*
- Faster repair of potentially hazardous leaks. Immediate repair of Grade 2 leaks required, with the repair to be completed within 6 months of detection and biweekly surveillance until the leak is eliminated. *Section 57.*
- Protection for trees. Grade 2 leaks to include a gas leak within the root zone of a tree, defined as the extent of the tree's canopy. *Section 57.*
- Protection for schools. Grade 2 leaks to include a gas leak within 150 feet of a school zone, with gas companies required to survey at least once every 12 months pipes within that zone, to repair any Grade 3 leaks found there within 6 months of detection, and to repair any Grade 1 and Grade 2 leaks according to the schedule of c. 164, § 144(b). *Sections 57 and 60.*
- Protection for communities. Grade 2 leaks to include (1) a gas leak within 10 feet of a foundation or wall, (2) a gas leak that has a gas-in-air reading of up to 1 percent in a manhole or confined space (could become an imminently explosive Grade 1 leak), or (3) a gas leak that is considered hazardous by a municipality's fire chief. *Section 57.*

- Faster reduction of emissions. Grade 3 leaks with emissions in the top 7% of Grade 3 leaks to be defined by DPU regulations as Grade 3 leaks having a significant environmental impact. *Sections 59 and 67.*
- Winter patrol of pipes. DPU required to issue uniform standards for winter surveillance and patrol of pipes subject to hazardous frost cap conditions to be in effect at least from December 15 to March 15, taking into account temperature duration, range, and change, as well as type and size of cast iron pipe. *Section 63.*
- Transparency in gas company plans. Gas companies required to file a plan with the DPU to address (1) gas leaks, (2) the repair and replacement of the street segments of leak-prone infrastructure, and (3) the location of remaining leak-prone infrastructure in the municipality, as well as health and safety of the public in developing the plan. *Sections 67 and 66.*
- More accurate and complete reporting. Gas companies required to include in their annual service quality reports to the DPU (1) location of leaks by GPS, (2) leak classification dates, (3) repair dates, and (4) reclassification of previously reported leaks. *Section 61.*
- Transparency in reporting leaks and costs to ratepayers. DPU required to post annually by March 1, in spreadsheet format, information concerning each leak, including its grade, emissions, volume, and emissions impact, as well as the cost to ratepayers of the following: (1) lost and unaccounted for gas, (2) system maintenance, (3) leak-prone infrastructure replacement completed and projected, (4) safety violations, (5) cost of replacing versus repairing leak-prone infrastructure, and (6) progress toward achieving the benchmarks mandated by Chapter 21N (GWSA). *Section 61.*
- Transparency in mapping. DPU required to post a map of all leaks by grade classification and by location, updated quarterly and accessible to the public. *Section 61.*
- Independent audits. DPU required to select in consultation with the Attorney General a qualified independent contractor to audit reported leaks and their classification, including using a randomly selected representative sample of reported leaks, leak extent, and success rate of repairs. *Section 62.*

II. Reforms to the Department of Public Utilities (DPU)

The Department of Public Utilities regulates gas companies to ensure that:

- Customers get the most reliable service at the lowest possible cost,
- Gas companies comply with state and federal regulations governing safety, and
- Gas companies meet certain energy efficiency goals.

To increase transparency and accountability to the public and to expedite development of renewable sources of energy, the FUTURE Act requires:

- Accountability to the public and equitable access to energy. DPU required to actively promote the interest of the public and the equitable access to energy efficiency and renewable energy in its decision-making, and to include consideration of public health as well as public safety in carrying out its mandate to oversee public utilities. This includes setting rates, approval of mergers, siting energy facilities, setting long-range forecasts, approving Gas Safety Enhancement Program and other plans. *Sections 18, 29, 33, 34, 35, 40, 41, 42, 43, 44, 55, 64, 66, 68.*
- Penalties for non-compliance. DPU required to levy a penalty against electric or gas companies that fail to meet service quality standards. *Section 30.*
- Disapproval of gas company trade association fees. DPU required to disapprove rate designs and plans that include payment by a gas or electric company of fees or other costs associated with membership in trade associations. *Section 53.*
- Accountability in appointment of commissioners. Governor (rather than Secretary of Energy and Environmental Affairs as under current law) required to appoint DPU commissioners having expertise in renewable energy as well as electricity and natural gas, in consultation with the Attorney General and after opportunity for public comment. *Section 19.*

III. Reforms to gas company funding or structure

As public utilities, gas companies are highly regulated and can work only in accordance with rules set by the Department of Public Utilities. With the Commonwealth on a path

to reduce greenhouse gas emissions by 80% or more by 2050, investments today by gas companies in infrastructure that will be obsolete in 30 years will result in billions of dollars of stranded assets, paid for by the ratepayers.

The FUTURE Act gives the DPU the flexibility to allow gas companies to evolve toward distributing renewable thermal energy instead of gas. It permits the DPU to develop performance-based incentives and to encourage innovation in developing and deploying distribution of renewable thermal energy.

By authorizing Gas System Enhancement Program (GSEP) funds for repairs as well as replacement, the FUTURE Act also removes the current incentive for gas companies to neglect repairs in favor of replacing pipes. While it costs \$1.3 million per mile to replace a pipeline, repairing a leak costs on average about \$3,000. This flexibility will result in significant cost savings to ratepayers, expedite repairs of leaks, and free those dollar savings to develop renewable energy distribution.

The FUTURE Act authorizes or requires:

- Funding for renewable energy and district energy programs. DPU authorized to approve funding for renewable energy and district energy infrastructure programs proposed by gas companies. *Section 20.*
- Performance-based incentives. DPU authorized to issue regulations that permit a performance-based financial incentive to gas companies to build district energy infrastructure that complies with the mandates of Chapter 21N (GWSA) and promotes energy efficiency and renewable sources of energy. *Section 69.*
- Removal of impediments to low-emissions distributed generation, including district energy. DPU required to remove any impediment to the development of distributed generation, including district energy. *Section 54.*
- Addition of district energy infrastructure. DPU required to consider in its decisions regarding rate designs submitted by gas companies the additional factor of replacing gas infrastructure with district energy infrastructure. *Section 52.*
- Approval of distribution of thermal energy. Gas companies authorized to distribute and sell thermal energy in addition to gas so long as the thermal energy reduces greenhouse gas emissions. *Section 27.*

- GSEP funding for district energy infrastructure. GSEP funding authorized for leak-prone gas infrastructure that would be replaced with district energy infrastructure or other renewable thermal energy alternatives to gas. *Section 67.*
- GSEP funding for Grade 3 leaks having significant environmental impact. GSEP plans authorized to include repair rather than replacement of Grade 3 leaks having a significant environmental impact, where cost effective and in compliance with safety standards. *Section 67.*

Limitation on depreciation for cost recovery. Ratepayers are expected to pay \$9 billion over the next 20 years to replace leak-prone cast iron pipes, with the cost to be amortized in the rates over the next 40 years. To avoid stranded assets as gas is replaced by renewable energy, the FUTURE Act prohibits gas companies from claiming after 2050 any depreciation for recovery of the cost of replacing leak-prone gas infrastructure, unless the new infrastructure has the capacity to deliver thermal heat from renewable sources of energy. *Section 67.*

IV. Empowering municipalities

A vast network of gas pipes runs under the streets and neighborhoods of cities and towns throughout the Commonwealth – consisting 21,663 miles of gas mains and 1,336,690 service lines to ratepayers, as reported by gas companies in 2017. With some 18,000 leaks, these pipes are leaking methane, polluting the air, killing street trees, endangering our neighborhoods, and costing us money – as ratepayers pay for the leaked gas. To repair or replace these pipes, gas companies have to dig up those streets, disrupting traffic, inconveniencing residents, and costing municipalities for road repair and lost street trees.

The FUTURE Act improves coordination between the gas companies and the municipalities and gives more authority and flexibility to municipalities in their choice of energy sources. It also gives municipalities an effective voice in DPU proceedings and permits them to pursue remedies with the DPU instead of the courts for damages incurred during gas company roadwork.

The FUTURE Act requires:

- Street repair requirements. When opening up a street to repair or replace gas infrastructure, gas companies required to: (1) survey the project area for the presence of leaks, (2) set a leak repair and replacement schedule, and (3) provide the municipality with the location, history, and grade of the leak, as

well as the age, pressure, size and material of the pipe and the schedule for the replacement of any leak-prone infrastructure. *Section 59.*

- Reports to municipalities. Gas companies required to provide the municipality when the work is completed with a report from a certified gas inspector: (1) that the new infrastructure is free from defects, (2) that the shutoff valves and gate boxes are accessible and working, and (3) that the work was completed according to state and federal regulations. *Section 59.*
- Plans to municipalities. DPU required to send infrastructure plans submitted by a gas company to each municipality affected by the plans. *Section 70.*
- Municipal aggregation. DPU required to issue regulations authorizing expansion of municipal aggregation for district energy where it will reduce greenhouse gases and consumer cost. *Section 55.*

The FUTURE Act permits:

- Participation in DPU hearings. Municipalities permitted to participate fully in DPU adjudicatory proceedings related to its service territory, as may a member of the legislature whose district is in that service area or 10 or more ratepayers from that service area. *Section 26.*
- Claims for property damage. Municipalities permitted to submit to the DPU a claim for property damage, including trees killed by gas leaks or by gas pipe repair or replacement, as verified by a certified arborist. *Sections 46 and 57.*
- Claims for breach of franchise. Municipalities permitted to file a complaint with the DPU against an electric or gas company for breach of franchise or of DPU regulations, with DPU required to hold a public hearing and to publish its opinion. *Section 47.*

The FUTURE Act authorizes:

- Local energy services. Municipalities, state agencies, or gas or electric ratepayers authorized to procure local or district energy services and to establish an energy microgrid, using a public right of way for energy generation or resiliency. *Section 31.*

- Utility franchises. Municipalities, every 10 years, authorized to condition the establishment or renewal of an exclusive gas or electric franchise upon compliance with the municipality's regulations, including the underground placement of distribution lines and facilities. *Section 47.*
- Fees for utility franchise. Municipalities authorized to include in the franchise agreement a requirement for the electric or gas company to pay fees to raise revenue or to defray any increase in municipal costs resulting from the company's operations, as well as a requirement to provide the municipality with information about the gas or electric infrastructure and operations. Fees may be based upon gross operating revenues or upon gross earnings revenues, and may not be recovered in a proceeding under section 94 of chapter 164. (Such franchise agreements are common in Colorado, Minnesota, Washington, Florida, and elsewhere, giving municipalities the ability to negotiate better terms on rates, renewable energy, and other issues.) *Section 47.*

V. Renewable Energy Provisions

For several years, Massachusetts has led the nation in energy efficiency in the electricity sector. Every year the Commonwealth increases the amount of electricity generated from solar and wind power through a wide range of initiatives, including investments in wind and solar power as well as battery storage, energy efficiency programs for consumers, incentives to electric companies to reduce consumptions, and more.

The FUTURE Act brings this culture of innovation to the gas sector so that we can move off gas to other innovative methods based on renewable energy to heat our homes and cook our food.

The FUTURE Act requires:

- Per therm renewable energy charge. A charge of 14.65 mil per therm imposed on gas customers, which is equivalent to the 0.5 mil charge per kilowatt hour currently imposed on electricity customers, to be used by the Massachusetts Renewable Energy Trust Fund for renewable energy projects. *Section 22.*
- Funding for renewable energy projects. The Massachusetts Renewable Energy Trust Fund required to use funds from the per kilowatt hour charge

and the per therm charge for projects that use renewable energy rather than gas and other fossil fuels. *Sections 16 and 17.*

- Alternative energy portfolio for gas companies. Retail gas suppliers required to be included in the alternative energy portfolio standard for sales of useful thermal energy and renewable thermal technologies. *Sections 23 and 24.*
- Alternative energy credits for gas companies. Gas suppliers required to obtain and retire annually alternative energy credits generated by renewable thermal technology, in proportion to their customers' thermal use. *Section 25.*
- Determination of renewable energy credits. The Department of Energy Resources required to determine the amount of renewable thermal credits necessary to transition all heating oil customers to renewable thermal energy sources by December 31, 2030, and all other customers by December 31, 2048. *Section 25.*
- Decoupling to encourage renewable energy. DPU required to include in any base rate proceeding for a gas or electric company full decoupling as specified in D.P.U. 07-50-A, making adjustments as necessary to the company's rate of return. DPU prohibited after July 31, 2020, from approving a decoupling mechanism based on revenue per customer or any method that disincentivizes customers from converting from fossil fuel to renewable sources of energy for heating and cooling. *Section 50.*

Funding for renewable district energy programs. The FUTURE Act also provides funding for renewable energy and district energy infrastructure programs proposed by gas distribution companies so long as the programs maximize the use of renewable energy and the reduction of greenhouse gas emissions. *Sections 20 & 21.*

VI. Compliance with Chapter 21N, the Global Warming Solutions Act

In 2008, the Legislature passed the Global Warming Solutions Act (GWSA), codified in Chapter 21N, requiring the Department of Environmental Protection to set statewide targets for reducing greenhouse gas emissions in the Commonwealth by 80% over 1990 levels by 2050.

Most of the focus of the GWSA was on reducing emissions from the electricity sector, with few references to reducing emissions from the distribution of gas. The FUTURE Act ensures that methane emissions from gas are included in these targets and that compliance with the GWSA is at the core of the DPU's mission.

- Gas emissions included in greenhouse gas measurements. Emissions from distribution and consumption of gas required to be included by the Department of Environmental Protection in its measurement of greenhouse gas emissions and reductions. *Sections 1 through 15.*
- Compliance with the Global Warming Solutions Act. DPU's core mission required to include compliance with the mandates of Chapter 21N, (GWSA), to reduce greenhouse gas emissions by implementing regulations and adopting management practices in its oversight of gas and electric companies to reduce energy use, increase efficiency, and encourage renewable sources of energy, by inserting that requirement in relevant sections of Chapter 25 and Chapter 164. These include performance based rate schemes, approval of mergers, siting of energy facilities, long-range forecasts, and approval of rate designs. *Sections 18, 29, 32, 33, 36, 37, 39, 42, 43, 45, 49, 52, 55, 65, 67, and 69.*

VII. Governor's Clean Energy Transition Commission

Achieving a 100% reduction in greenhouse gas emissions by the year 2050 will require a combination of energy efficiency, technological change to adopt and deploy new sources of renewable energy, building renewable energy distribution infrastructure, and changes in customer behavior to reduce energy demands.

In September of 2016, Governor Baker took an important step by issuing an executive order mandating a coordinated response across state agencies to develop an integrated strategy for the Commonwealth to address climate change. Other advisory councils are working on discrete aspects of the Commonwealth's energy policy, such as the Energy Efficiency Advisory Council and the Zero Net Energy Building Advisory Council.

Much more must be done to fully engage significant stakeholders, experts, and citizens across the Commonwealth to make further recommendations for legislative and policy changes, and to provide implementation oversight.

The FUTURE Act establishes a Governor's Clean Energy Transition Commission, appointed by the Governor and chaired by the Lieutenant Governor, with funding from the Massachusetts Renewable Energy Trust Fund. It includes broad mandates to research and report on energy distribution and consumption, multi-year systems transition plans, and resource allocations to ensure that goals and benchmarks are met, so that the Commonwealth can confidently reach its goals of 100% reduction in greenhouse gas emissions by 2050. *Section 71.*

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