



HARVARD  
LAW SCHOOL  

---

ENVIRONMENTAL  
& ENERGY  
LAW PROGRAM

CAITLIN MCCOY

# The Legal Dynamics of Local Limits on Natural Gas Use in Buildings

| June 8, 2020



<b>Introduction</b>	<b>3</b>
<b>How States and Local Governments Share Legal Authority Over Building Energy Sources</b>	<b>5</b>
<b>Local Ordinances Limiting or Prohibiting the Use of Natural Gas in Buildings</b>	<b>8</b>
California	8
How State Law Facilitates Stricter Local Standards in California	8
Reach Code Ordinances Approved by the California Energy Commission	11
Legal Outlook for California and Beyond	15
Massachusetts	16
Local Action in Massachusetts	17
<b>Other Policies Spurring Electrification and Limiting Natural Gas in Buildings</b>	<b>22</b>
City Governments Leading the Way with City-Owned Buildings	22
Recent State-Level Electrification Efforts	25
Banning Bans in Arizona, Tennessee, and Oklahoma	28
<b>Conclusion</b>	<b>30</b>



# Introduction

Many cities and states are working to reduce greenhouse gas emissions and buildings provide a major opportunity to make progress on climate goals and move toward decarbonization. Buildings consume a lot of electricity<sup>1</sup> and also generate emissions by burning natural gas for space and water heating and cooking.<sup>2</sup> The Deep Decarbonization Pathways Project (DDPP), a global coalition of energy research teams from the top 16 GHG emitting countries, prepared complementary technical and policy reports on how to reduce US GHG emissions by 80% below 1990 levels by 2050.<sup>3</sup> The US

Technical Report suggests five major changes to building energy policies, but the ideas focus on fuel switching and increased electrification in tandem with electricity decarbonization.<sup>4</sup> The US Policy Report advises policymakers to phase out fossil fuels and electrify functions in buildings,<sup>5</sup> so that decarbonized electricity can account for 90% of the final energy use in buildings, up from 50% electricity and 50% natural gas today.<sup>6</sup>

When I first read the US DDPP reports in 2016, I was working on what would become the chapter on New Buildings in *Legal Pathways to Deep Decarbonization in the United States*.<sup>7</sup> As part of my research, I looked for cities and states in the US that were planning or taking steps to switch away from natural gas. At the time, I could only find one. The City of Palo Alto, California was working on a feasibility analysis for electrification of new and existing buildings back in 2016.<sup>8</sup>

---

1 About 75% of the electricity produced in the U.S. is used in residential and commercial buildings. *Electricity Explained: Use of Electricity*, U.S. ENERGY INFORMATION ADMINISTRATION (EIA), <https://www.eia.gov/energyexplained/electricity/use-of-electricity.php> (last updated Apr. 29, 2019).

2 In 2017, for example, buildings accounted for 36% of the nation's CO2 emissions from electricity use and fossil fuel combustion for heating and cooking. U.S. ENVTL. PROTECTION AGENCY, INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990-2017, at 12, tbl. ES-3 (2019), <https://www.epa.gov/sites/production/files/2019-02/documents/us-ghg-inventory-2019-main-text.pdf>.

3 About, DEEP DECARBONIZATION PATHWAYS PROJECT <http://deepdecarbonization.org/about/>.

---

4 JAMES H. WILLIAMS ET AL., ENERGY AND ENVIRONMENTAL ECONOMICS, INC. ET AL., PATHWAYS TO DEEP DECARBONIZATION IN THE UNITED STATES, US 2050 REPORT, VOLUME 1: TECHNICAL REPORT 24, 92-93 (2015) [http://deepdecarbonization.org/wp-content/uploads/2015/11/US\\_Deep\\_Decarbonization\\_Technical\\_Report.pdf](http://deepdecarbonization.org/wp-content/uploads/2015/11/US_Deep_Decarbonization_Technical_Report.pdf).

5 JAMES H. WILLIAMS ET AL., ENERGY AND ENVIRONMENTAL ECONOMICS, INC. ET AL., POLICY IMPLICATIONS OF DEEP DECARBONIZATION IN THE UNITED STATES, US 2050 REPORT, VOLUME 2: POLICY REPORT 1, 91-92 (2015) [http://deepdecarbonization.org/wp-content/uploads/2015/11/US\\_Deep\\_Decarbonization\\_Policy\\_Report.pdf](http://deepdecarbonization.org/wp-content/uploads/2015/11/US_Deep_Decarbonization_Policy_Report.pdf).

6 Id. at 22-23.

7 Lee Paddock and Caitlin McCoy, *New Buildings*, in LEGAL PATHWAYS TO DEEP DECARBONIZATION IN THE UNITED STATES (Michael B. Gerrard and John C. Dernbach, eds., 2019).

8 TRC ENERGY SERVICES FOR THE CITY OF PALO ALTO, PALO ALTO ELECTRIFICATION FINAL REPORT, (Nov. 16, 2016) <https://www.cityofpaloalto.org/civicax/filebank/documents/55069>.



Over the last four years, cities and states implementing climate plans have started to take a broader and longer view on the building sector, going beyond energy efficiency toward decarbonization. Groups like the Rocky Mountain Institute and Sierra Club launched building electrification programs to develop policies and supporting information, and to advocate for policy adoption.<sup>9</sup> Cities have come together to share strategies and best practices through collaborations like the Building Electrification Initiative.<sup>10</sup> These efforts have incorporated indoor air quality and public health considerations<sup>11</sup> in addition to the climate change mitigation motives for these policy changes.<sup>12</sup>

In July 2019, Berkeley, California adopted the first ordinance in the US to prohibit natural gas hook-ups in new buildings and other California cities began adopting similar limitations.<sup>13</sup> The California Energy Commission has recently explained, “...this new wave of local standards with a focus on decarbonization is unprecedented in the state’s history, highlighting the ability and willingness of Californians to innovate and tackle global problems at a local level.”<sup>14</sup>

As these policies began to sweep through California, one town on the East Coast, Brookline, Massachusetts, considered a similar local law and adopted it in late 2019. The movement had spread across the country and it had also arrived in state governments. Through the second half of 2019 and the beginning of 2020, states have started to evaluate how to transition away from natural gas in buildings.

In this paper, I explore recent actions to electrify buildings, breaking down the legal mechanics of local laws and the role of state laws in facilitating or constraining local policies. I describe these policies as limitations or restrictions rather than bans because in many cases they still allow the use of natural gas for certain functions or according to exceptions.

---

9 *Building Electrification*, ROCKY MOUNTAIN INSTITUTE <https://rmi.org/our-work/building-electrification>. RACHEL GOLDEN, BUILDING ELECTRIFICATION ACTION PLAN FOR CLIMATE LEADERS, SIERRA CLUB (Dec. 2019) <https://www.sierraclub.org/sites/www.sierraclub.org/files/Building%20Electrification%20Action%20Plan%20for%20Climate%20Leaders.pdf>.

10 *About*, BUILDING ELECTRIFICATION INITIATIVE <https://www.beicities.org/about>.

11 See David Roberts, *Gas stoves can generate unsafe levels of indoor air pollution*, Vox (May 11, 2020) <https://www.vox.com/energy-and-environment/2020/5/7/21247602/gas-stove-cooking-indoor-air-pollution-health-risks> (compiling recent studies on air quality and public health). See also Dr. YIFANG ZHU, ET. AL., UCLA FIELDING SCHOOL OF PUBLIC HEALTH, *EFFECTS OF RESIDENTIAL GAS APPLIANCES ON INDOOR AND OUTDOOR AIR QUALITY AND PUBLIC HEALTH IN CALIFORNIA* (April 2020) <https://coeh.ph.ucla.edu/effects-residential-gas-appliances-indoor-and-outdoor-air-quality-and-public-health-california>.

12 The U.S. oil and gas industry leaks an estimated 13 million metric tons of methane annually across production, processing, transmission, and storage. Methane is a powerful, short-lived climate pollutant. Anthony J. Marchese and Dan Zimmerle, *The US natural gas industry is leaking way more methane than previously thought. Here’s why that matters*, THE CONVERSATION (July 2, 2018) <https://theconversation.com/the-us-natural-gas-industry-is-leaking-way-more-methane-than-previously-thought-heres-why-that-matters-98918>.

---

13 Rachel Golden and Mark Kresowik, 2019: *The Birth of a National Movement for Gas-Free Homes and Buildings*, SIERRA CLUB (Dec. 20, 2019) <https://www.sierraclub.org/articles/2019/12/2019-birth-national-movement-for-gas-free-homes-and-buildings>.

14 Press Release, California Energy Commission, CEC Approves First Local Energy Efficiency Standards That Go Beyond 2019 Statewide Requirements (Dec. 11, 2019) <https://www.energy.ca.gov/news/2019-12/cec-approves-first-local-energy-efficiency-standards-go-beyond-2019-statewide>.



First, I set the stage for the understanding how local and state laws interact based on how the state shares its authority with local governments. I discuss local action in California next, because that's arguably where this movement started. I will explain the features of California's building energy code and laws that allow for more stringent local standards. I describe the standards local governments in California have adopted limiting natural gas use to date. The diversity and nuance in these policies becomes clear as I provide a brief summary of each of the nine most recently approved ordinances. Then I discuss Massachusetts law and the Brookline, MA by-law that seeks to end the use of natural gas in new and remodeled buildings. From there, I explore cities that are taking advantage of a less legally complex option for local action—electrifying publicly-owned buildings. Finally, I discuss states that are beginning to consider how to reduce the amount of natural gas used in buildings, often as part of the efforts to meet their climate goals.

## How States and Local Governments Share Legal Authority Over Building Energy Sources

The Tenth Amendment to the US Constitution, reserves powers not delegated to the federal government to the states and the people.<sup>15</sup> The nature and boundaries of these powers have been defined and refined through decades of case law beginning with the Supreme Court's famous opinion in *Lochner v. New York* in 1905.<sup>16</sup> These powers are called state police powers and expressed as the authority of a state to enact and enforce laws for the promotion of the public health, safety, and the general welfare of its residents.<sup>17</sup>

State police powers are the legal basis for state laws and regulations for the building and energy

---

<sup>15</sup> U.S. CONST. amend. X.

<sup>16</sup> *Lochner v. New York*, 198 U.S. 45, 53 (1905), *overruled by* *W. Coast Hotel Co. v. Parrish*, 300 U.S. 379 (1937) (describing an early conception of police powers as "...certain powers, existing in the sovereignty of each State in the Union, somewhat vaguely termed police powers, the exact description and limitation of which have not been attempted by the courts. Those powers, broadly stated, and without, at present, any attempt at a more specific limitation, relate to the safety, health, morals, and general welfare of the public.").

<sup>17</sup> *E.g.* *Lochner v. New York*, 198 U.S. 45, 53 (1905), *overruled by* *W. Coast Hotel Co. v. Parrish*, 300 U.S. 379 (1937). LOCAL GOV'T COMM'N, PENN. GEN. ASSEMBLY, PENNSYLVANIA LEGISLATOR'S MUNICIPAL DESKBOOK 75 (5th ed. 2017), <http://www.lgc.state.pa.us/deskBook.cfm>.



sectors. State law is not the only law in these areas—the federal government can adopt laws and regulations that affect these sectors using its power to regulate commerce.<sup>18</sup> Local governments can also adopt codes, ordinances, and by-laws to regulate aspects of the building and energy sectors, but local governments can only exercise state police power to the extent the state shares with them. States can decide to share their police powers with local governments according to three legal structures: Dillon’s Rule, Home Rule, or a hybrid system.

Dillon’s Rule says that a municipal government can exercise only: (1) the powers expressly granted to it, (2) powers that are necessarily implied in the express powers, and (3) powers that are essential and indispensable to its objects and purposes.<sup>19</sup> In other words, local governments only have the authority explicitly given to them by states and some related authority. Dillon’s Rule comes from an opinion by Judge John F. Dillon in the Iowa Supreme Court in 1868.<sup>20</sup> It was distilled in his treatise on the law of municipal governments in 1872<sup>21</sup> and the rule was recognized and upheld by the United States Supreme Court in 1907 and 1923.<sup>22</sup>

The features of Home Rule vary in each state, but it can be generally described as allowing certain cities and counties sufficient autonomy to create their own governments that can act and make policy in all areas that have not been designated to be of statewide interest.<sup>23</sup> Local governments that meet their state’s requirements for Home Rule have expansive authority, but it’s not unlimited. The state still has the power to legislate in certain areas exclusively and preempt (invalidate) local laws that conflict with them. States generally require jurisdictions to meet a population threshold, vote to become a Home Rule entity, and adopt a charter outlining their authority. Home Rule emerged from concerns about state involvement in local matters, corruption, and ambiguity around the authority of local governments that surfaced just before and just after the Civil War.<sup>24</sup> States adopted Home Rule by amending state constitutions or passing legislation to give cities and counties sufficient autonomy to create their own governments with authority to provide local services in the face of growing needs.<sup>25</sup> Only 10 states allow for Home Rule broadly, 9 states use a hybrid between Dillon’s Rule and Home Rule, and 31 states apply Dillon’s Rule to all municipalities.<sup>26</sup>

---

18 U.S. CONST. art. I, § 8, cl. 3.

19 JOHN FORREST DILLON, TREATISE ON THE LAW OF MUNICIPAL CORPORATIONS (1st ed. 1872).

20 *City of Clinton v. Cedar Rapids & Missouri River R. R. Co.*, 24 Iowa 455 (1868).

21 JOHN FORREST DILLON, TREATISE ON THE LAW OF MUNICIPAL CORPORATIONS (1st ed. 1872).

22 *Hunter v. City of Pittsburgh*, 207 U.S. 161 (1907). *Trenton v. New Jersey*, 262 U.S. 182, 187 (1923).

---

23 DALE KRANE, PLATON N. RIGOS & MELVIN B. HILL, JR., HOME RULE IN AMERICA: A FIFTY-STATE HANDBOOK 2 (2001).

24 *Id.* at 11. See also Rick Su, *Have Cities Abandoned Home Rule?*, 44 FORDHAM URB. L.J. 181, 190-91 (2017), <https://digitalcommons.law.buffalo.edu/articles/138>.

25 KRANE, RIGOS & HILL at 12.

26 The ten states are Alaska, Iowa, Massachusetts, Montana, New Jersey, New Mexico, Ohio, Oregon, South Carolina and Utah. Jesse J. Richardson, Meghan Zimmerman Gough & Robert Puentes, *Is Home Rule the Answer? Clarifying the Influence of Dillon’s Rule on Growth*



Dillon’s Rule is ever-present, even in states with Home Rule.<sup>27</sup> After all, Home Rule is a grant of power from the state to a locality and even if Home Rule is thought of as a presumption in favor of local authority, that presumption operates in a framework built by the state.<sup>28</sup>

State building codes and laws governing natural gas utilities operate within these broader legal frameworks that govern state and city authority. Local governments planning to adopt local policies limiting the use of natural gas in buildings need to consider potential state law restrictions on their authority to set such limits. States often have a statewide building code, but they could give local governments broad authority to adopt their own codes. If there is a statewide building code, the state will likely also have

a statewide building energy code. A building energy code specifically covers energy use and efficiency requirements.

The state building code or building energy code could have a preemption provision that blocks local laws that conflict with it. There might be exceptions to the preemption provision(s) where the state allows local governments to adopt ordinances with standards that differ from the statewide codes in limited circumstances. The code(s) should provide a list of which types of local standards might qualify as exceptions and the procedures to seek approval for them. The state may also distinguish between cities and towns or other municipal categories providing increased autonomy for cities, particularly those that have adopted a home rule charter.

The state building or building energy code might clearly acknowledge the potential for local standards that are more stringent than the state code and outline procedures for their approval, as in the case of California.<sup>29</sup> Such local requirements can be called “reach codes” to describe a set of provisions that “reach” beyond the state requirements for energy use in building design and construction. A state building code system that allows reach codes creates opportunities for local governments to experiment with and demonstrate the feasibility of different policies.

State energy laws and regulations related to natural gas are also relevant. There could be preemption provisions that defend the state’s sole authority

---

*Management*, Discussion Paper prepared for The Brookings Institution Center on Urban and Metropolitan Policy 18 (Jan. 2003) <https://www.brookings.edu/wp-content/uploads/2016/06/dillonsrule.pdf>.

27 Rick Su, *Have Cities Abandoned Home Rule?*, 44 *FORDHAM URB. L.J.* 181, 193 (2017), <https://digitalcommons.law.buffalo.edu/articles/138> (noting that courts have been reluctant to abandon Dillon’s Rule, it serves as a kind of backstop where states continue to set limits on local power even for Home Rule localities.”).

28 *Id.* at 191 (“Advocates of Home Rule did not seek to overturn the underlying legal premise of Dillon’s Rule—they did not, for example, assert that cities possessed inherent powers independent of the state. Yet Home Rule sought to rebalance the city-state relationship by tweaking how power and entitlements were allocated between the two. If Dillon’s Rule held that cities drew all of their power from state delegation, Home Rule expanded that delegation to include nearly all the powers that the state could delegate with respect to local affairs. If Dillon’s Rule imagined that cities were creations of state law, Home Rule gave cities the power to draft their own charters and determine for themselves the powers they wished to exercise, the responsibilities they wished to assume, and the governmental structure within which they operated. And if Dillon’s Rule imagined that states might preempt local legislation, Home Rule imposed limits on the situations and contexts in which they could do so.”).

---

29 CAL. PUB. RES. CODE § 25402.1(h)2. CAL. CODE REGS. tit. 24, part 1, § 10-106.



over natural gas regulation. Even if the state asserts exclusive authority over natural gas infrastructure generally, it could still be legal for a local government to set limits on natural gas piping in buildings in its jurisdiction. These can be complex questions: the extent of the state’s control over natural gas and whether it is permissible for a local government to adopt requirements that limit natural gas use. Local permitting policies for installation and maintenance of natural gas lines (and related litigation over these policies) can shed some light on the potential for local control in this area.

# Local Ordinances Limiting or Prohibiting the Use of Natural Gas in Buildings

## California

California cities are leading the nation in working to phase out natural gas from buildings. Over the last year, 28 California cities have adopted requirements related to natural gas and all-electric new

construction.<sup>30</sup> Now, over 50 additional California cities and counties are considering similar policies.<sup>31</sup>

### HOW STATE LAW FACILITATES STRICTER LOCAL STANDARDS IN CALIFORNIA

California law allows cities and counties to adopt energy standards that are more stringent than the statewide building efficiency standards. California Public Resources Code Section 25402.1(h)2 and Section 10-106 of the Building Energy Efficiency Standards establish a process which allows local governments to adopt and enforce energy standards for new buildings as well as additions, alterations, and repairs to existing buildings, provided the California Energy Commission (CEC) approves the local standards.<sup>32</sup>

Local jurisdictions apply to the CEC for approval of their standards, providing analysis that shows how the local government has determined that its proposed standards are cost-effective and more efficient than the current statewide standards.<sup>33</sup> Once CEC staff have verified the efficiency of the local standards and held a 60-day public comment period, the application goes before the full CEC for

---

30 Matt Gough, *Forward-Looking Cities Lead the Way to a Gas-Free Future*, SIERRA CLUB (Feb. 18, 2020) <https://www.sierraclub.org/articles/2020/02/forward-looking-cities-lead-way-gas-free-future>.

31 Id.

32 As a preliminary matter, the CEC ensures the local standards will not result in buildings that exceed the energy consumption allowed by the Building Energy Efficiency Standards, CAL. CODE REGS. tit. 24, part 6. Available at: <https://ww2.energy.ca.gov/2018publications/CEC-400-2018-020/CEC-400-2018-020-CMF.pdf>.

33 Id.





approval.<sup>34</sup>

So far, the CEC has approved 15 applications for local energy ordinances that exceed the statewide requirements of the 2019 Building Energy Efficiency Standards.<sup>35</sup> It's important to remember that California's Building Energy Efficiency Standards are some of the most efficient and innovative in the country. California's standards were first adopted in 1977 and have consistently tightened by 12-15% every three years according to their revision and adoption cycles.<sup>36</sup> The 2019 standards, effective in January 2020, took the final step toward zero net energy for newly constructed residential buildings. According to the standards, homes and multi-family buildings should use a combination of improved efficiency and distributed renewable energy generation to meet 100% of their annual energy needs.<sup>37</sup> These standards were crafted to implement

the state's goals of achieving net zero energy use in all new residential construction by 2020 and commercial construction by 2030.<sup>38</sup> These are the foundational, statewide standards in California that the local standards exceed.

The local ordinances function as reach codes. The California Energy Codes and Standards Program provides technical assistance, training, and resources to jurisdictions that are considering reach codes "...intended to support meeting local and/or statewide energy and greenhouse gas reduction goals.<sup>39</sup> The program is provided by investor-owned utilities that operate in California and funded by California utility customers. In terms of resources, the program provides "...cost-effectiveness studies, model language, sample findings, and other supporting documentation."<sup>40</sup>

In July 2019, Berkeley became the first city in the US to prohibit natural gas infrastructure in all new buildings.<sup>41</sup> The ordinance contains exceptions related to feasibility and the public interest, but requires new buildings that meet exceptions be wired to transition to all-electric in the future.<sup>42</sup> The

---

34 Id. See part 1, § 10-106.

35 Press Release, California Energy Commission, CEC Approves First Local Energy Efficiency Standards That Go Beyond 2019 Statewide Requirements (Dec. 11, 2019) <https://www.energy.ca.gov/news/2019-12/cec-approves-first-local-energy-efficiency-standards-go-beyond-2019-statewide>. Mallory Moench, *California approves natural gas limits on new buildings in nine Bay Area cities*, S. F. CHRONICLE (Feb. 20, 2020) <https://www.sfchronicle.com/business/article/California-approves-natural-gas-limits-on-new-15071665.php>.

36 *Zero Net Energy Action Plan*, CALIFORNIA PUBLIC UTILITY COMMISSION 20 (June 2015) [http://www.cpuc.ca.gov/uploadedFiles/CPUC\\_Public\\_Website/Content/Utilities\\_and\\_Industries/Energy/Energy\\_Programs/Demand\\_Side\\_Management/EE\\_and\\_Energy\\_Savings\\_Assist/ZNERESACTIONPLAN\\_FINAL\\_060815.pdf](http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy/Energy_Programs/Demand_Side_Management/EE_and_Energy_Savings_Assist/ZNERESACTIONPLAN_FINAL_060815.pdf).

37 All new single-family homes and low-rise apartment buildings will be required to install solar panels or connect to community solar power. There are exemptions for homes that will be shaded by trees or are otherwise not suitable for solar energy generation.

---

38 *Long Term Energy Efficiency Strategic Plan*, CALIFORNIA PUBLIC UTILITY COMMISSION 6 [www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=5305](http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=5305).

39 CAL. ENERGY CODES AND STANDARDS PROGRAM, <https://localenergycodes.com/>.

40 *References and Other Resources*, CAL. ENERGY CODES AND STANDARDS PROGRAM, <https://localenergycodes.com/content/about/>.

41 Susie Cagle, *Berkeley became first US city to ban natural gas. Here's what that may mean for the future*, THE GUARDIAN (July 23, 2019) <https://www.theguardian.com/environment/2019/jul/23/berkeley-natural-gas-ban-environment>.

42 Kristin Musulin, *Berkeley sets historic law banning natural gas*



ordinance relies on “the City’s municipal police powers to regulate building standards” to restrict the use of natural gas as both a forward-looking climate change initiative and a public health measure intended to improve residents’ lives in the near term.<sup>43</sup> The ordinance was an early move, openly acting outside the CEC’s reach code system, which was still in the process of modeling all-electric buildings to be able to approve more stringent local energy efficiency standards involving them.<sup>44</sup> Berkeley explained, “This ordinance differs from the reach code approach in that it leverages the City’s authority under the California Constitution to prohibit installation of hazardous internal gas piping infrastructure when granting use permits for new

buildings, and as a result avoids CEC regulations associated with asking permission to amend energy efficiency standards.” San Jose, Morgan Hill, Alameda, and Santa Cruz have followed Berkeley’s early model to adopt similar restrictions using police powers and sidestep the CEC’s reach code process.<sup>45</sup> Berkeley later expanded its policies by adopting a reach code for electrification in December 2019, noting that the original ordinance and reach code are complementary and “...work in tandem to support

---

from new buildings, UTILITY DIVE (July 18, 2019) <https://www.utilitydive.com/news/berkeley-sets-historic-law-banning-natural-gas-from-new-buildings/559026>.

43 Berkeley City Council Facilities, Infrastructure, Transportation, Environment & Sustainability Committee Recommendation: Adopt an Ordinance adding a new Chapter 12.80 to the Berkeley Municipal Code Prohibiting Natural Gas Infrastructure in New Buildings (July 9, 2019) [https://www.cityofberkeley.info/Clerk/City\\_Council/2019/07\\_Jul/Documents/2019-07-16\\_Revised\\_Packet\\_2019-07-16\\_Item\\_C\\_Adopt\\_an\\_Ordinance\\_adding\\_a\\_new\\_Chapter\\_pdf.aspx](https://www.cityofberkeley.info/Clerk/City_Council/2019/07_Jul/Documents/2019-07-16_Revised_Packet_2019-07-16_Item_C_Adopt_an_Ordinance_adding_a_new_Chapter_pdf.aspx). See BERKELEY, CAL., MUN. CODE §12.80.010(C) (2019) (“The following addition to the Berkeley Municipal Code is also reasonably necessary because of health and safety concerns as Berkeley residents suffer from asthma and other health conditions associated with poor indoor and outdoor air quality exacerbated by the combustion of natural gas”).

44 Id. (“The state CEC is now beginning to model all-electric buildings. As of January, 2020, all-electric low-rise residential buildings (three and fewer stories) will be accepted under Title 24 and the CEC is hard at work modelling other building types and systems. Most of the building occurring in Berkeley is not low-rise residential. Instead of waiting for CEC policies model all-electric buildings for all building types to begin limiting natural gas, this ordinance provides the City with an immediate pathway to fossil free new buildings as building types and systems are approved by the CEC.”)

---

45 *San Jose Reach Code*, CITY OF SAN JOSE CALIFORNIA <https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/climate-smart-san-jos/2019-reach-code-initiative>. See Ordinance No. 30330: An Ordinance of the City of San Jose Adding a New Chapter 17.845 to Title 17 of the San Jose Municipal Code to Prohibit Natural Gas Infrastructure in New Single-Family, Low-Rise Residential Buildings, and Detached Accessory Dwelling Units (Oct. 29, 2019) Available at: <https://records.sanjoseca.gov/Ordinances/ORD30330.pdf>.

*Morgan Hill goes all-electric*, THE MORGAN HILL TIMES (Oct. 31, 2019) <https://morganhilltimes.com/morgan-hill-goes-all-electric>. See Prohibition of Natural Gas Infrastructure in New Buildings, Morgan Hill Mun. Code, Chapter 15.63. Available at: <https://rb.gy/clpexh>. *City Approves Phasing out Use of Natural Gas*, ALAMEDA SUN (Nov. 12, 2019) <https://alamedasun.com/news/city-approves-phasing-out-use-natural-gas>. See Resolution Limiting Natural Gas Infrastructure for New Residential Construction on City Owned Property. Available at: <https://alameda.legistar.com/LegislationDetail.aspx?ID=4205739&GUID=4C03354A-091F-448E-9407-B2C1907DC29A&Options=&Search=> (Noting that the resolution establishes a City Council policy to limit the use of natural gas in new residential buildings constructed on City property because the majority of vacant lands in Alameda that may be developed for residential uses are owned by the City. This serves as an interim step before the city considers a citywide ordinance.)

Minutes of City Council Meeting, City of Santa Cruz, California (Mar. 24, 2020) <http://scsire.cityofsantacruz.com/sirepub/mtgviewer.aspx?meetid=1360&doctype=MINUTES>.

See Prohibition of Natural Gas Infrastructure in New Buildings, Santa Cruz Mun. Code, Chapter 6.100. Available at: <http://scsire.cityofsantacruz.com/sirepub/cache/2/kuf11kjodgvy2uifo51xaapf/496293605272020114553746.PDF>.



building electrification and its health, safety, and climate benefits.”<sup>46</sup> Berkeley is referring to how these two types of ordinances capture projects in different stages of development to consistently shape the entire planning process—the prohibition ordinances play a role in the earlier land use and zoning phase and the reach codes apply during the later building permitting phase.

### **REACH CODE ORDINANCES APPROVED BY THE CALIFORNIA ENERGY COMMISSION**

The first six reach code ordinances, approved by the CEC in December 2019,<sup>47</sup> set requirements that move buildings toward increased electrification and efficiency. The City of Menlo Park’s ordinance requires new residential construction to use electric space and water heating, but still allows natural gas for cooking and fireplaces.<sup>48</sup> New, non-residential buildings must be all-electric and install solar electric generation. Menlo Park allows for some exceptions, on a case-by-case basis.<sup>49</sup> The cities

of San Jose,<sup>50</sup> San Mateo,<sup>51</sup> and Santa Monica,<sup>52</sup> and the County of Marin<sup>53</sup> have ordinances that require new buildings that use natural gas to be more energy efficient than all-electric buildings. Essentially, they raise the bar for the overall energy efficiency of a building if it still uses natural gas.

Marin County has divided new buildings according to whether they use natural gas for cooking and/or fireplaces only, use natural gas for heating and/or hot water heating, or are ‘all-electric.’<sup>54</sup> Buildings that fall into one of the first two categories must be prewired for future induction cooking and meet

---

46 City of Berkeley Natural Gas Prohibition & Reach Code for Electrification Fact Sheet (Dec. 2019) [https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Energy\\_and\\_Sustainable\\_Development/Berkeley%20Energy%20Reach%20Code%20for%20Electrification%20and%20Natural%20Gas%20Prohibition%209-27-19.pdf](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Energy_and_Sustainable_Development/Berkeley%20Energy%20Reach%20Code%20for%20Electrification%20and%20Natural%20Gas%20Prohibition%209-27-19.pdf).

47 Id.

48 Memorandum from Michael J. Sokol, Deputy Dir. Efficiency Div. Cal. Energy Comm’n to Drew Bohan, Exec. Dir., Cal. Energy Comm’n on Possible Approval of the City of Menlo Park’s Local Building Energy Standards: Ordinance No. 1057 (Dec. 3, 2019) [https://ww2.energy.ca.gov/business\\_meetings/2019\\_packets/2019-12-11/Item\\_08a\\_2019%20Menlo%20Park.pdf](https://ww2.energy.ca.gov/business_meetings/2019_packets/2019-12-11/Item_08a_2019%20Menlo%20Park.pdf).

49 Id.

---

50 Memorandum from Michael J. Sokol, Deputy Dir. Efficiency Div. Cal. Energy Comm’n to Drew Bohan, Exec. Dir., Cal. Energy Comm’n on Possible Approval of The City of San Jose’s Local Building Energy Standards: Ordinance No. 30311 (Dec. 3, 2019) [https://ww2.energy.ca.gov/business\\_meetings/2019\\_packets/2019-12-11/Item\\_08b\\_2019%20San%20Jose.pdf](https://ww2.energy.ca.gov/business_meetings/2019_packets/2019-12-11/Item_08b_2019%20San%20Jose.pdf).

51 Memorandum from Michael J. Sokol, Deputy Dir. Efficiency Div. Cal. Energy Comm’n to Drew Bohan, Exec. Dir., Cal. Energy Comm’n on Possible Approval of The City of San Mateo’s Local Building Energy Standards: Ordinance No. 2019-9 (Dec. 3, 2019) [https://ww2.energy.ca.gov/business\\_meetings/2019\\_packets/2019-12-11/Item\\_08c\\_2019%20San%20Mateo.pdf](https://ww2.energy.ca.gov/business_meetings/2019_packets/2019-12-11/Item_08c_2019%20San%20Mateo.pdf).

52 Memorandum from Michael J. Sokol, Deputy Dir. Efficiency Div. Cal. Energy Comm’n to Drew Bohan, Exec. Dir., Cal. Energy Comm’n on Possible Approval of The City of Santa Monica’s Local Building Energy Standards: Ordinance No. 2617 (Dec. 3, 2019) [https://ww2.energy.ca.gov/business\\_meetings/2019\\_packets/2019-12-11/Item\\_08d\\_2019%20Santa%20Monica.pdf](https://ww2.energy.ca.gov/business_meetings/2019_packets/2019-12-11/Item_08d_2019%20Santa%20Monica.pdf).

53 Memorandum from Michael J. Sokol, Deputy Dir. Efficiency Div. Cal. Energy Comm’n to Drew Bohan, Exec. Dir., Cal. Energy Comm’n on Possible Approval of The County of Marin’s Local Building Energy Standards: Ordinance No. 3712, from Michael J. Sokol (Dec. 3, 2019) [https://ww2.energy.ca.gov/business\\_meetings/2019\\_packets/2019-12-11/Item\\_08f\\_2019%20Marin%20County.pdf](https://ww2.energy.ca.gov/business_meetings/2019_packets/2019-12-11/Item_08f_2019%20Marin%20County.pdf).

54 Id.



certain energy efficiency requirements.<sup>55</sup>

The sixth ordinance, from the City of West Hollywood requires new buildings and major remodels to existing buildings<sup>56</sup> to include either a solar photovoltaic (PV) system large enough to offset 15% of building electric use, a solar thermal system, or a vegetative roof covering at least 30% of the roof.<sup>57</sup> It also requires additional water efficiency measures for all buildings and increased energy or water efficiency measures for new residential and multifamily and mixed-use buildings that are four or more stories tall.<sup>58</sup>

In February 2020, the CEC approved nine more municipal codes that restrict the use of natural gas in new buildings—for Berkeley, Santa Rosa, Healdsburg, Windsor, Palo Alto, Los Gatos, Milpitas, Mountain View, and Brisbane.<sup>59</sup> These cities have adopted ordinances that are more focused on building

decarbonization and transitioning away from natural gas.

Berkeley’s reach code, adopted in December 2019, is intended to complement its July 2019 natural gas prohibition ordinance by requiring higher energy efficiency in new high-rise homes and nonresidential buildings that meet exemptions allowing them to use natural gas. Specifically, that they exceed the calculated energy budget by 10%.<sup>60</sup> It also requires those buildings to be pre-wired for electric appliances and install rooftop solar.<sup>61</sup> Low-rise residential buildings that qualify for an exemption must meet additional efficiency requirements and be pre-wired for electric appliances.<sup>62</sup> Exemptions are granted on a case-by-case basis and only when all-electric isn’t feasible or the use of natural gas is determined to be in the public interest.<sup>63</sup>

---

55 Id.

56 Remodels that cause a building to become 10,000 square feet or more.

57 Memorandum from Michael J. Sokol, Deputy Dir. Efficiency Div. Cal. Energy Comm’n to Drew Bohan, Exec. Dir., Cal. Energy Comm’n on Possible Approval of The City of West Hollywood’s Local Building Energy Standards: Ordinance No. 19-1072 (Dec. 3, 2019) [https://ww2.energy.ca.gov/business\\_meetings/2019\\_packets/2019-12-11/Item\\_08e\\_2019%20West%20Hollywood.pdf](https://ww2.energy.ca.gov/business_meetings/2019_packets/2019-12-11/Item_08e_2019%20West%20Hollywood.pdf).

58 Id. Specifically, it requires a 50% improvement in building energy performance over the baseline in the 2019 Energy Code or a graywater collection and treatment system, or green building certification through LEED or another rating system.

59 Mallory Moench, California approves natural gas limits on new buildings in nine Bay Area cities, S. F. CHRONICLE (Feb. 20, 2020) <https://www.sfchronicle.com/business/article/California-approves-natural-gas-limits-on-new-15071665.php>.

---

60 Memorandum from Michael J. Sokol, Deputy Dir. Efficiency Div. Cal. Energy Comm’n to Drew Bohan, Exec. Dir., Cal. Energy Comm’n on Possible Approval of the City of Berkeley Local Building Energy Standards: Ordinance No. 7,678-N.S. (Feb. 12, 2020) [https://ww2.energy.ca.gov/business\\_meetings/2020\\_packets/2020-02-20/Item\\_06b\\_Berkeley\\_ADA.pdf](https://ww2.energy.ca.gov/business_meetings/2020_packets/2020-02-20/Item_06b_Berkeley_ADA.pdf).

61 Id.

62 Specifically, they must exceed the total Energy Design Rating (EDR) by 10 points. Id.

63 City of Berkeley, Planning and Dev. Dep’t, Office of Energy and Sustainability, City of Berkeley Natural Gas Prohibition & Reach Code for Electrification (Dec. 2019) [https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Energy\\_and\\_Sustainable\\_Development/Berkeley%20Energy%20Reach%20Code%20for%20Electrification%20and%20Natural%20Gas%20Prohibition%209-27-19.pdf](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Energy_and_Sustainable_Development/Berkeley%20Energy%20Reach%20Code%20for%20Electrification%20and%20Natural%20Gas%20Prohibition%209-27-19.pdf). Berkeley City Council Facilities, Infrastructure, Transportation, Environment & Sustainability Committee Recommendation: Adopt an Ordinance adding a new Chapter 12.80 to the Berkeley Municipal Code Prohibiting Natural Gas Infrastructure in New Buildings (July 9, 2019) <https://www.cityofberkeley.info/>



Santa Rosa requires new low-rise residential construction to be all electric with no gas or propane plumbing. The city also adopted specific minimum requirements for new low-rise single-family and multifamily buildings: slab insulation, solar PV and battery storage, compact hot water distribution, central fan-integrated ventilation, and duct leakage testing and sealing. There is an exemption for accessory dwelling units.<sup>64</sup>

Healdsburg requires new low-rise residential, high-rise residential, and non-residential buildings to install electric space conditioning, water heating and clothes drying equipment. The city still allows natural gas for cooking, fireplaces, and pool and spa appliances. If natural gas appliances are installed, then the building must also be pre-wired for electric appliances as well.<sup>65</sup>

Windsor requires new low-rise residential construction including single-family, multi-family up to three stories, and detached accessory dwelling units to be all-electric with no use of gas mechanical

---

[Clerk/City Council/2019/07\\_Jul/Documents/2019-07-16\\_Revised\\_Packet\\_2019-07-16\\_Item\\_C\\_Adopt\\_an\\_Ordinance\\_adding\\_a\\_new\\_Chapter\\_pdf.aspx](#)

64 Memorandum from Michael J. Sokol, Deputy Dir. Efficiency Div. Cal. Energy Comm'n to Drew Bohan, Exec. Dir., Cal. Energy Comm'n on Possible Approval of the City of Santa Rosa Local Building Energy Standards: Ordinance No. 2019-019 (Feb. 12, 2020) [https://ww2.energy.ca.gov/business\\_meetings/2020\\_packets/2020-02-20/Item\\_06a\\_Santa%20Rosa\\_ADA.pdf](https://ww2.energy.ca.gov/business_meetings/2020_packets/2020-02-20/Item_06a_Santa%20Rosa_ADA.pdf).

65 Memorandum from Michael J. Sokol, Deputy Dir. Efficiency Div. Cal. Energy Comm'n to Drew Bohan, Exec. Dir., Cal. Energy Comm'n on Possible Approval of the City of Healdsburg Local Building Energy Standards: Ordinance No. 1196 (Feb. 12, 2020) [https://ww2.energy.ca.gov/business\\_meetings/2020\\_packets/2020-02-20/Item\\_06f\\_Healdsburg\\_ADA.pdf](https://ww2.energy.ca.gov/business_meetings/2020_packets/2020-02-20/Item_06f_Healdsburg_ADA.pdf).

systems or appliances.<sup>66</sup>

Palo Alto requires new low-rise residential buildings and additions to be all electric. Other new buildings (non-residential, high-rise residential, and hotel/motel buildings) are required to install solar PV and are allowed to use natural gas. If they use natural gas, they must be 12% more efficient than the Energy Code as well as all-electric ready by pre-wiring for electric equipment and appliances.<sup>67</sup>

Los Gatos requires new single-family residential, accessory dwelling units, and low-rise multi-family buildings to be both all-electric and prewired for the installation of battery storage.<sup>68</sup>

Milpitas creates three categories for all types of buildings: 'all-electric'; 'electrically heated' with gas used only for cooking and clothes drying; and 'mixed fuel' with gas used for heating and water heating.<sup>69</sup>

---

66 Memorandum from Michael J. Sokol, Deputy Dir. Efficiency Div. Cal. Energy Comm'n to Drew Bohan, Exec. Dir., Cal. Energy Comm'n on Possible Approval of the City of Windsor Local Building Energy Standards: Ordinance No. 2019-338 (Feb. 12, 2020) [https://ww2.energy.ca.gov/business\\_meetings/2020\\_packets/2020-02-20/Item\\_06d\\_Windsor\\_ADA.pdf](https://ww2.energy.ca.gov/business_meetings/2020_packets/2020-02-20/Item_06d_Windsor_ADA.pdf).

67 Memorandum from Michael J. Sokol, Deputy Dir. Efficiency Div. Cal. Energy Comm'n to Drew Bohan, Exec. Dir., Cal. Energy Comm'n on Possible Approval of the City of Palo Alto Local Building Energy Standards: Ordinance No. 5485 (Feb. 12, 2020) [https://ww2.energy.ca.gov/business\\_meetings/2020\\_packets/2020-02-20/Item\\_06g\\_Palo\\_Alto\\_ADA.pdf](https://ww2.energy.ca.gov/business_meetings/2020_packets/2020-02-20/Item_06g_Palo_Alto_ADA.pdf).

68 Memorandum from Michael J. Sokol, Deputy Dir. Efficiency Div. Cal. Energy Comm'n to Drew Bohan, Exec. Dir., Cal. Energy Comm'n on Possible Approval of the Town of Los Gatos Local Building Energy Standards: Ordinance No. 2299 (Feb. 12, 2020) [https://ww2.energy.ca.gov/business\\_meetings/2020\\_packets/2020-02-20/Item\\_06h\\_Los\\_Gatos\\_ADA.pdf](https://ww2.energy.ca.gov/business_meetings/2020_packets/2020-02-20/Item_06h_Los_Gatos_ADA.pdf).

69 Memorandum from Michael J. Sokol, Deputy Dir. Efficiency Div.



The city then provides enhanced energy efficiency requirements to buildings depending on the category, incentivizing the construction of all-electric homes by requiring those that use gas to meet stricter efficiency requirements. They use Energy Design Rating (EDR), which is a way to express the energy performance of a residential building where the lower the score, the more efficient the building.<sup>70</sup>

New single family and duplex buildings are required to have a 2-point EDR reduction if ‘electrically heated’ and a 10-point EDR reduction if ‘mixed-fuel’. Low-rise multi-family buildings are required to have a 1-point EDR reduction if ‘electrically heated’ and an 11-point EDR reduction if ‘mixed fuel’. Office and commercial ‘mixed-fuel’ buildings are required to be 14% more efficient than Energy Code, all other nonresidential buildings 6%.<sup>71</sup>

Pre-wiring for electric appliances is required where gas appliances are installed. Installation of solar PV systems is required between 3 kW or 5 kW in size depending on whether the building is under or over 10,000 square feet, respectively. Solar hot water

systems may be substituted for PV.<sup>72</sup>

In Mountain View, all single-family, duplex and multi-family residential, mixed-use, hotel, and commercial new construction must be all-electric and install a solar PV system.<sup>73</sup> Exemptions are allowed for factory, hazardous materials and laboratory occupancies. For-profit kitchens may also apply for an exemption. Pre-wiring for electric appliances is required where natural gas appliances are installed. Mountain View also requires compliance with Mandatory CALGreen, LEED Gold and the Mountain View Green Building Code.<sup>74</sup>

Brisbane requires all new buildings to be all electric, but allows the use of natural gas for cooking and fireplaces. The city requires installation of solar PV systems for new high-rise residential and non-residential buildings. The solar PV systems are required to be 3 kW or 5 kW in size depending on whether the building is under or over 10,000 square feet, respectively.<sup>75</sup>

---

Cal. Energy Comm’n to Drew Bohan, Exec. Dir., Cal. Energy Comm’n on Possible Approval of the City of Milpitas Local Building Energy Standards: Ordinance No. 65-148 (Feb. 12, 2020) [https://ww2.energy.ca.gov/business\\_meetings/2020\\_packets/2020-02-20/Item\\_06e\\_Milipitas\\_ADA.pdf](https://ww2.energy.ca.gov/business_meetings/2020_packets/2020-02-20/Item_06e_Milipitas_ADA.pdf).

70 What is the Energy Design Rating (EDR)?, ENERGY SOFT <http://www.energysoft.com/faqs/what-is-the-energy-design-rating-edr/>.

71 Memorandum from Michael J. Sokol, Deputy Dir. Efficiency Div. Cal. Energy Comm’n to Drew Bohan, Exec. Dir., Cal. Energy Comm’n on Possible Approval of the City of Milpitas Local Building Energy Standards: Ordinance No. 65-148 (Feb. 12, 2020) [https://ww2.energy.ca.gov/business\\_meetings/2020\\_packets/2020-02-20/Item\\_06e\\_Milipitas\\_ADA.pdf](https://ww2.energy.ca.gov/business_meetings/2020_packets/2020-02-20/Item_06e_Milipitas_ADA.pdf).

72 Id.

73 Memorandum from Michael J. Sokol, Deputy Dir. Efficiency Div. Cal. Energy Comm’n to Drew Bohan, Exec. Dir., Cal. Energy Comm’n on Possible Approval of the City of Mountain View Local Building Energy Standards: Ordinance No. 17.19 (Feb. 12, 2020) [https://ww2.energy.ca.gov/business\\_meetings/2020\\_packets/2020-02-20/Item\\_06c\\_Mountain\\_View\\_ADA.pdf](https://ww2.energy.ca.gov/business_meetings/2020_packets/2020-02-20/Item_06c_Mountain_View_ADA.pdf).

74 Id.

75 Memorandum from Michael J. Sokol, Deputy Dir. Efficiency Div. Cal. Energy Comm’n to Drew Bohan, Exec. Dir., Cal. Energy Comm’n on Possible Approval of the City of Brisbane Local Building Energy Standards: Ordinance No. 643 (Feb. 12, 2020) [https://ww2.energy.ca.gov/business\\_meetings/2020\\_packets/2020-02-20/Item\\_06i\\_Brisbane\\_ADA.pdf](https://ww2.energy.ca.gov/business_meetings/2020_packets/2020-02-20/Item_06i_Brisbane_ADA.pdf).





Looking at this group of ordinances from nine cities, we can see that some still allow natural gas for specific uses in residential buildings, like cooking and/or fireplaces, and are allowing natural gas use in commercial or industrial buildings. Santa Rosa, Palo Alto, Windsor, and Los Gatos require new low-rise homes to be all-electric. Mountain View is the only city to require all new buildings to use only electric, rather than natural gas, appliances.

## Legal Outlook for California and Beyond

These policies reflect a range of priorities and approaches. There is a sharp focus on electrification in some jurisdictions. Some policies are more of a mix of incentives which lean toward increasing electrification, but still provide builders and homeowners with a suite of options and a certain amount of flexibility. It will be valuable to track how these ordinances are implemented and the decisions that are made as a result of them. They will provide insight into which mix of requirements can produce the most electrification while remaining cost-effective and saving energy. These ordinances may be duplicated in other cities and towns in the years to come and may even serve as proof of concept for aspects of federal building standards at a time in the future when Congress might craft comprehensive climate legislation or a Green New Deal.

These changes in California cities have not come

without opposition<sup>76</sup> including legal challenges. The California Restaurant Association sued Berkeley, challenging the legality of its July 2019 ordinance and arguing it would increase costs and harm restaurants.<sup>77</sup> Specifically, the California Restaurant Association alleges that Berkeley's ordinance is preempted by the federal Energy Policy and Conservation Act,<sup>78</sup> which sets energy efficiency standards for appliances.<sup>79</sup> The Restaurant Association also alleges it is an unenforceable exercise of police power<sup>80</sup> and it is preempted by the California Building Standards Code<sup>81</sup> and California Energy Code.<sup>82</sup> Filing the case in federal court and alleging federal preemption seems to be the proverbial shot across the bow to try to stop similar local laws from being adopted across the

---

76 See e.g. Sammy Roth, *California ditched coal. The gas company is worried it's next*, LOS ANGELES TIMES (Oct. 22, 2019) <https://www.latimes.com/environment/story/2019-10-22/southern-california-gas-climate-change>.

77 Mallory Moench, *As Bay Area natural gas bans spread, lawsuits mount*, S.F. CHRONICLE (Dec. 3, 2019) <https://www.sfchronicle.com/business/article/As-Bay-Area-natural-gas-bans-spread-lawsuits-14877008.php>.

78 Complaint at 10-11, *Cal. Restaurant Ass'n v. City of Berkeley*, Case No. 3:19-cv-07668 (N.D. Cal. 2019).

79 The Energy Policy and Conservation Act of 1975 sets energy efficiency standards for certain household appliances, including those that commonly run on natural gas, such as furnaces, water heaters, clothes dryers, kitchen ranges, and ovens. 42 U.S.C. § 6292. The Act preempts state and local standards for those same appliances. 42 U.S.C. § 6297.

80 Complaint at 11-12, *Cal. Restaurant Ass'n v. City of Berkeley*, Case No. 3:19-cv-07668 (N.D. Cal. 2019).

81 *Id.* at 12-14.

82 *Id.* at 14-16.



country. The court is currently considering a motion to dismiss filed by the City of Berkeley and briefing on the motion is complete, so a decision should be forthcoming on whether the case is viable. The City of Windsor is also facing two lawsuits from developers in state superior court and one of those developers is suing the City of Santa Rosa over its ordinance as well.<sup>83</sup>

On April 8, 2020, the CEC considered local ordinances from six additional cities at its meeting. The cities are Pacifica, San Rafael, Mill Valley, Saratoga, Cupertino, and Los Angeles.<sup>84</sup>

## Massachusetts

Massachusetts does not have a process like the one under California law that explicitly allows local governments to adopt more stringent building energy standards. Instead, municipalities have to rely on their own police powers to adopt additional requirements and dodge conflicts with state law along the way. Municipalities in Massachusetts can

either be classified as towns or cities.<sup>85</sup> State law outlining the powers and duties of cities and towns says that “...cities shall have all the powers of towns and such additional powers as are granted to them by their charters or by general or special law....”<sup>86</sup> The Home Rule Amendment to the Massachusetts Constitution allows cities and towns to adopt their own charters in line with its purpose “...to grant and confirm to the people of every city and town the right of self-governance in local matters....”<sup>87</sup> A charter determines whether a municipality is a city or a town, defining its structure,<sup>88</sup> organization, powers and relationship to the state, among other things.<sup>89</sup> Classification as either a city or town affects how state statutes and regulations apply to the municipality. Most important for our purposes, the state Attorney General must approve town by-laws before they can go into effect and city ordinances can be effective immediately.<sup>90</sup>

---

83 Will Schmitt, *Sonoma County town and developers explore settlement in suits over natural gas ban*, THE NORTH BAY BUSINESS JOURNAL (Feb. 5, 2020) <https://www.northbaybusinessjournal.com/industrynews/construction/10674189-181/windsor-construction-natural-gas-lawsuit>. Will Schmitt, *Developer Bill Gallaher sues Santa Rosa over natural gas ban as city doubles down on climate goal*, THE PRESS DEMOCRAT (Jan. 17, 2020) <https://www.pressdemocrat.com/news/10587634-181/developer-bill-gallaher-sues-santa>.

84 Cal. Energy Comm’n, Business Meeting Agenda (April 8, 2020) [https://www.energy.ca.gov/sites/default/files/2020-03/2020-04-08\\_Agenda\\_ADA.pdf](https://www.energy.ca.gov/sites/default/files/2020-03/2020-04-08_Agenda_ADA.pdf).

---

85 *A Listing of Counties and the Cities and Towns Within*, SECRETARY OF THE COMMONWEALTH OF MASSACHUSETTS <https://www.sec.state.ma.us/cis/cisctlist/ctlistcoun.htm> (listing 39 cities and 312 towns in 14 counties). In order to be a city, the municipality must have over 12,000 residents. Mass. Const. art. LXXXIX, § 2.

86 MASS. GEN. LAWS ch. 40, § 1. Available at: <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter40/Section1>.

87 Mass. Const. art. LXXXIX, § 1.

88 “Cities are managed by a city council and an executive official (a mayor or a city manager). Towns, by contrast, preserve the open town meeting or the representative town meeting as their governing body.” David J. Barron, Gerald E. Frug & Rick T. Su, *DISPELLING THE MYTH OF HOME RULE: LOCAL POWER IN GREATER BOSTON 2* (2004) [https://www.hks.harvard.edu/sites/default/files/centers/rappaport/files/home\\_rule.pdf](https://www.hks.harvard.edu/sites/default/files/centers/rappaport/files/home_rule.pdf).

89 *Id.*

90 There is some controversy around this and it is still something of an open question. The Massachusetts Supreme Judicial Court found





The Massachusetts Attorney General’s Municipal Law Unit reviews town by-laws to determine whether by-laws and amendments are consistent with the state constitution and laws.<sup>91</sup> The Town Clerk is required to submit general or zoning by-laws to the Attorney General’s Office within 30 days of adoption and the Attorney General’s Office has 90 days to perform its review. There is a presumption in favor of upholding municipal by-laws during this review process.<sup>92</sup> The key questions for the review are whether the by-law interferes with the purpose of a state law or is explicitly preempted by state law.<sup>93</sup> “If the Attorney General finds an inconsistency between the proposed amendments and state law, the amendments or portions of them will be disapproved.”<sup>94</sup> The Municipal Law Unit issues

a written decision approving or disapproving the reviewed by-law amendments.<sup>95</sup> The Attorney General may provide comments as part of the decision that highlight steps the local government should take during implementation to ensure it does not violate specific provisions of state law.<sup>96</sup>

### LOCAL ACTION IN MASSACHUSETTS

In Massachusetts, a few cities and two towns began considering local measures to limit natural gas in new and renovated buildings in fall 2019. The cities of Cambridge<sup>97</sup> and Newton,<sup>98</sup> and the town of Arlington,<sup>99</sup> have discussed proposals, but have not yet adopted local laws. The town of Brookline is the first and only town that has adopted a by-law which no longer allows natural gas piping to be used in new buildings for heat, hot water, and certain appliances, but cooking appliances are exempt.<sup>100</sup>

---

that city ordinances should also be subject to the approval requirement, but declined to require it based on a feature of the city charter. *Forbes v. Woburn*, 306 Mass. 67, 69, 27 N.E.2d 733, 734 (1940). State laws have changed since 1940, including some of the key elements the court relied on in its decision, so it is unclear whether the Supreme Judicial Court would reach a similar decision in a similar case today, but it has remained unchallenged and something of a legal gray area. See *id.* at chapter 1, endnote 6.

91 This process is required by MASS. GEN. LAWS ch. 40, § 32. Available at: <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter40/Section32>.

92 *Town of Amherst v. Attorney General*, 398 Mass. 793, 795-96 (1986) (“It is fundamental that every presumption is to be made in favor of the validity of municipal by-laws.”).

93 *Bloom v. City of Worcester*, 363 Mass 136, 154 (1973) (“If the State legislative purpose can be achieved in the face of a local ordinance or by-law on the same subject, the local ordinance or by-law is not inconsistent with the State legislation, unless the Legislature has expressly forbidden the adoption of local ordinances and by-laws on that subject.”).

94 *Municipal Law Review*, OFFICE OF THE ATTORNEY GENERAL OF MASSACHUSETTS <https://www.mass.gov/municipal-law-review>.

95 *Id.*

96 See e.g. Letter from Maura Healey, Attorney General of Massachusetts to Marcella S. Gore, Town Clerk, Town of Monroe on Monroe Special Town Meeting of October 28, 2019 – Case # 9742 Warrant Article # 4 (Zoning) (April 23, 2020).

97 Maria G. Gonzalez, *City Council Discusses Natural Gas Ban, Adopts Motion to Convene Stakeholder Meetings*, THE HARVARD CRIMSON (Jan. 28, 2020) <https://www.thecrimson.com/article/2020/1/28/cambridge-bans-fossil-fuels>.

98 John Chesto, *Brookline’s ban on natural gas connections spurs other municipalities to consider the idea*, THE BOSTON GLOBE (Dec. 11, 2019) <https://www.bostonglobe.com/business/2019/12/11/after-brookline-other-cities-and-towns-start-consider-their-own-natural-gas-bans/BRKynpllf0s4miQIDKlKlK/story.html>.

99 *Id.*

100 *Sustainable Buildings Warrant Article 21*, TOWN OF BROOKLINE,



Brookline’s by-law applies to new buildings and major renovations (with a work area more than 50% of the building floor area prior to the project).<sup>101</sup> It contains exemptions for large central hot water heaters and provides for waivers if compliance is “financially infeasible or impractical.”<sup>102</sup> Brookline’s by-law was adopted according to “its home rule powers and its police powers” under Massachusetts law, specifically citing its authority to “direct[] and manag[e] their prudential affairs, preserving peace and good order...” and to “regulat[e] the inspection, materials, construction, installation, alteration or use of pipes, fittings and fixtures through which gas is supplied within buildings.”<sup>103</sup>

Brookline’s status as a town in Massachusetts means that its by-law needs to be approved by the Attorney General before it can be implemented. Brookline’s by-law was adopted on November 20, 2019,<sup>104</sup> meaning it needed to be submitted by December 20, 2019 and the review should have been completed around March 20, 2020. The review has not been released yet, as of May 20, 2020. These reviews can take longer than 90 days, as

recent examples involving extensions demonstrate.<sup>105</sup> The Municipal Law Unit has been issuing decisions despite the [ongoing pandemic](#), including issuing decisions in April and May 2020.<sup>106</sup>

The potential legality of local laws in Massachusetts limiting natural gas in buildings will hinge on whether the Attorney General interprets such local laws as conflicting or interfering with existing state laws and whether the local and state laws can coexist harmoniously. Brookline’s Select Board’s Supplemental Recommendation for the by-law acknowledged the potential for conflict with state law, saying “...there could be several statutes that may preempt what this bylaw is attempting to do.”<sup>107</sup> The Recommendation specifically mentioned the state building code, explaining the by-law was crafted “... not to supersede the code but it is breaking new ground...”<sup>108</sup>

A potential conflict could occur with the Massachusetts Residential Code, which asserts

---

MASSACHUSETTS <https://www.brooklinema.gov/1706/Sustainable-Buildings-Warrant-Article-21>.

101 Id.

102 Id.

103 MASS. GEN. LAWS ch. 40, § 21, clauses 1 and 18. Available at: <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter40/Section21>.

104 Bruce Gellerman, *Brookline Is Still Cooking With Gas, But Has Banned Fossil Fuels For Heating*, WBUR (Nov. 20, 2019) <https://www.wbur.org/earthwhile/2019/11/20/brookline-fossil-fuel-ban-heating-oil-natural-gas>.

---

105 Brookline’s by-law amendments to prohibit the sale and distribution of flavored tobacco products were adopted May 21, 2019 and were not fully approved by the Attorney General’s office until December 23, 2019. See Letter from Maura Healey, Attorney General of Massachusetts to Patrick J. Ward, Town Clerk, Town of Brookline on Brookline Annual Town Meeting of May 21, 2019 – Case # 9576 (Dec. 23, 2019).

106 *Municipal Law Unit Decision Lookup*, OFFICE OF THE ATTORNEY GENERAL OF MASSACHUSETTS, <https://massago.onbaseonline.com/MASSAGO/1801PublicAccess/mlu.htm>.

107 Select Board’s Supplemental Recommendation for Article 21, Brookline, Massachusetts, Special Town Meeting, 11 (Nov. 19, 2019) <https://www.brooklinema.gov/DocumentCenter/View/20839/ARTICLE-21-as-voted-per-Town-Clerk?bidId=>.

108 Id.



that state laws control when local ordinances or by-laws conflict with state regulations.<sup>109</sup> The relevant provision notes that there is an exception for more restrictive standards if the state Building Code Appeals Board finds them to be “...reasonably necessary because of special conditions prevailing within such city or town and that such standards conform with accepted national and local engineering and fire prevention practices, with public safety and with the general purposes of a statewide building code...”<sup>110</sup>

Groups interested in these issues have submitted comment letters to the Attorney General’s office as part of the review process. An analysis of the Brookline by-law and state law prepared by the Emmet Environmental Law & Policy Clinic at Harvard Law School for Mothers Out Front Massachusetts found no conflict between state law and the Brookline by-law.<sup>111</sup> The letter drew connections to municipal restrictions in other areas subject to state laws and regulations that have been upheld by

the Municipal Law Unit or by a court on appeal.<sup>112</sup> An analysis prepared for a coalition of industry groups and trade associations related to real estate, construction, and natural gas<sup>113</sup> concluded that the by-law is preempted by the state building code.<sup>114</sup> Specifically, it pointed to how the by-law “...requires the Town’s Building Commissioner to *withhold* building permits for certain structures that are in full compliance with the State Building Code, notwithstanding his or her ministerial legal mandate to *issue* those very same building permits pursuant to the State Building Code.”<sup>115</sup> The industry groups and trade associations argued that Brookline should have tried to seek approval of its restriction from the Building Code Appeals Board as an exception to the state code through the process outlined in the

---

109 780 MASS. CODE REGS. 51 § R102.2.2 (“When municipal bylaws and ordinances conflict with 780 CMR, 780 CMR shall govern unless the bylaws or ordinances were promulgated in accordance with M.G.L. c. 143 § 98.”). Available at: <https://www.mass.gov/doc/chapter-1-scope-and-application-amendments-0/download/>.

110 MASS. GEN. LAWS ch. 143 § 98. Available at: <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXX/Chapter143/Section98> (“...the board may, after notice to said board of selectmen or mayor, and after a public hearing, adopt rules and regulations, impose conditions in connection with the adoption thereof and terminate such rules and regulations at such time and in such manner as the board may deem necessary, desirable or proper.”).

111 Mothers Out Front Massachusetts, Comment Letter on Brookline November 20, 2019, Special Town Meeting Article 21 - Case No. 9752, prepared by the Emmett Environmental Law & Policy Clinic at Harvard Law School (Feb. 27, 2020).

---

112 Id. (citing the Attorney General’s approval of municipal limitations on single use plastic bags, certain types of firearms and plastic straws in food or retail establishments, and commercial activities, like a seasonal prohibition on the use of gas-powered leaf blowers).

113 The Home Builders & Remodelers Association of Massachusetts, American Petroleum Institute, NAIOP Massachusetts, the Massachusetts Energy Marketers Association, the International Council of Shopping Centers, the Greater Boston Real Estate Board, the Retailers Association of Massachusetts, the Massachusetts Association of Realtors, the Massachusetts Restaurant Association, and the Propane Gas Association of New England. Press Release, Home Builders & Remodelers Association of Massachusetts, HBRAMA Files Opposition to Brookline Natural Gas Ban with Attorney General (Mar. 10, 2020) <https://hbrama.com/2020/03/hbrama-files-opposition-to-brookline-natural-gas-ban-with-attorney-general/>.

114 Memorandum of Joint Associations regarding Brookline Fall 2019 Special Town Meeting Article 21, prepared by Kevin C. Conroy, Tad Heuer, and Andrew M. London of Foley Hoag 1 (Feb. 27, 2020) <https://hbrama.com/wp-content/uploads/2020/03/Memorandum-of-Joint-Associations-to-AGO-No.-9752-2020-02-27-copy.pdf>.

115 Id. (internal citations omitted, emphasis in original).



code.<sup>116</sup>

If the Attorney General’s Office disapproves Brookline’s by-law or key portions of it, that wouldn’t prohibit adoption of similar measures in the cities of Cambridge<sup>117</sup> and Newton.<sup>118</sup> City ordinances are not subject to the same approval process as town by-laws in Massachusetts. But rejection of the Brookline by-law could make it difficult for cities to defend similar ordinances depending on how the Brookline by-law is determined to be in conflict with state law.

Cambridge City Solicitor Nancy Glowa has determined that a city ordinance with similar restrictions on natural gas in buildings would conflict with state law because Massachusetts regulates public utilities comprehensively under Chapter 164 and would conflict with the state’s building code under Chapter 143, which regulates building permitting.<sup>119</sup> When the state regulates utilities providing a service like natural gas, cities cannot interfere by adopting their own rules restricting

provision of that service, according to her analysis.<sup>120</sup> The proposal in Cambridge tries to avoid conflict with state regulation by only banning gas hookups inside buildings and not infrastructure like distribution lines, but it’s unclear whether that strategy can thread the needle.<sup>121</sup> Newton’s Assistant Solicitor Andrew Lee also concluded that local regulation of natural gas would be preempted by Chapter 164 of state law regulating the sale of gas and electricity.<sup>122</sup>

The cities of Cambridge and Newton could pursue a home rule petition, a Massachusetts-specific home rule maneuver where a city “...may petition the legislature for authority to exercise some power or function which a general law precludes.”<sup>123</sup> Essentially, a city or group of similarly situated cities can request authority from the state to do something that would otherwise be prohibited. In this case, the cities could petition for authority to adopt restrictions on natural gas in buildings. The state legislature would then have to adopt a special law approving

---

116 Id. at 1-2.

117 Maria G. Gonzalez, *City Council Discusses Natural Gas Ban, Adopts Motion to Convene Stakeholder Meetings*, THE HARVARD CRIMSON (Jan. 28, 2020) <https://www.thecrimson.com/article/2020/1/28/cambridge-bans-fossil-fuels>.

118 John Chesto, *Brookline’s ban on natural gas connections spurs other municipalities to consider the idea*, THE BOSTON GLOBE (Dec. 11, 2019) <https://www.bostonglobe.com/business/2019/12/11/after-brookline-other-cities-and-towns-start-consider-their-own-natural-gas-bans/BRKynpllfOs4miQIDKlKlK/story.html>.

119 Tom DiChristopher, *Mass. gas bans unlikely to survive legal challenge, solicitors warn*, S&P GLOBAL: MARKET INTELLIGENCE (Dec. 18, 2019) <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/56209935>.

---

120 Id. See Letter from Nancy E. Glowa, City of Cambridge Solicitor, to Louis A. Pasquale, City of Cambridge Manager on Response to Awaiting Reports No. AR 19-124 seeking a Report on the Legal Authority of the City to Ban the Use of Natural Gas in Newly Constructed Buildings and AR 19-133 seeking Review of Proposed Amendments to the Municipal Code (Dec. 11, 2019).

121 Id.

122 Id. See MASS. GEN. LAWS ch. 164 § 69K. Available at: <https://malegislature.gov/laws/generallaws/parti/titlexxii/chapter164/section69k>.

123 John W. Lemega, *Chapter 16: State and Municipal Government: Home Rule*, in ANNUAL SURVEY OF MASSACHUSETTS LAW, Vol. 1967, Article 19, 276 (1967) <https://lawdigitalcommons.bc.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1401&context=asm>. See Mass. Const. art. LXXXIX, § 8.



the petition and the governor would have to sign it.<sup>124</sup> Notably, “...the power the municipality exercises, if the petition is granted, comes from the state. If the state denies the petition, the municipality has no power to act. Equally importantly, the locality only obtains the power to act in the precise manner set forth in the special legislation. Any deviation from the precise terms would require the locality to return to the legislature...”<sup>125</sup>

It quickly becomes clear why the home rule petition is an unattractive path. First, it will take time to get a response from state lawmakers and there is a risk of inaction or rejection.<sup>126</sup> Second, the request for this authority functions as an admission that the cities don’t have the authority to adopt these limits on their own.<sup>127</sup> Third, the rigidity of the special legislation is not a good match for a new policy area where there is a strong possibility that the cities might want to modify the requirements as implementation gets underway. For now, Cambridge and Newton are waiting on the results of the Attorney General’s

review of the Brookline by-law before strategizing about how to move forward.

If the Attorney General finds a conflict and disapproves Brookline’s by-law, keeping it from going into effect, Brookline could seek judicial review and argue the decision is based on an error of law or is arbitrary or capricious.<sup>128</sup> A court would then evaluate the Attorney General’s determination and could decide to either uphold the Attorney General’s determination or uphold Brookline’s by-law. It wouldn’t be the first time a court overruled the Attorney General’s office.<sup>129</sup> And even if the bylaw survives the Attorney General’s review, it could still be challenged in court by parties who oppose it.<sup>130</sup>

---

124 WHAT IS HOME RULE?, MASS. DEP’T OF REVENUE, DIV. OF LOCAL SERVICES (Jan. 2020) <https://www.mass.gov/doc/home-rule/download>. Dan Wolf, *The quiet but essential process known as “home rule petitions”*, THE BARNSTABLE PATRIOT (Aug. 15, 2014) <https://www.barnstablepatriot.com/article/20140815/opinion/308159965>.

125 David J. Barron, Gerald E. Frug & Rick T. Su, *DISPELLING THE MYTH OF HOME RULE: LOCAL POWER IN GREATER BOSTON* 13 (2004) [https://www.hks.harvard.edu/sites/default/files/centers/rappaport/files/home\\_rule.pdf](https://www.hks.harvard.edu/sites/default/files/centers/rappaport/files/home_rule.pdf).

126 Id. at xii (“...local requests often die in the state legislature due to lack of attention or objections that are rooted in statewide political concerns.”).

127 Tom DiChristopher, *Mass. gas bans unlikely to survive legal challenge, solicitors warn*, S&P GLOBAL: MARKET INTELLIGENCE (Dec. 18, 2019) <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/56209935>.

---

128 MASS. GEN. LAWS. ch. 40, § 32. (judicial review is not expressly precluded). MASS. GEN. LAWS ch. 30A, § 14. Available at: <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleIII/Chapter30A/Section14>.

129 See e.g. *Town of Amherst v. Attorney General*, 398 Mass. 793 (1986) (quashing the Attorney General’s disapproval as based on improper assumptions and upholding the by-law); *Milton v. Attorney General*, 372 Mass. 694, 695-96 (1977) (quashing the Attorney General’s disapproval based on the court’s finding that the bylaw was not inconsistent with the purpose of the state statute the Attorney General found it to conflict with and upholding the by-law).

130 Select Board’s Supplemental Recommendation for Article 21, Brookline, Massachusetts, Special Town Meeting, 11 (Nov. 19, 2019) <https://www.brooklinema.gov/DocumentCenter/View/20839/ARTICLE-21-as-voted-per-Town-Clerk?bidId=>.



# Other Policies Spurring Electrification and Limiting Natural Gas in Buildings

## City Governments Leading the Way with City-Owned Buildings

Focusing on city-owned buildings is one way that cities can sidestep legal complexities, like those Brookline is facing, and begin to transition buildings away from natural gas. City governments are in a unique position to lead on building electrification as the owners of public buildings, which can represent a substantial amount of square footage and energy use in the city. Cities can commit to electrifying the buildings they own and operate without running into the legal issues posed by adopting a city-wide ordinance. These actions can serve a proof of concept, demonstrating what is possible and may be part of a city's broader strategy to reduce emissions from buildings.<sup>131</sup> Several cities are starting to take steps toward electrifying municipal buildings.

San Francisco began its move toward electrification by prohibiting natural gas in all new or renovated

---

131 Cities with climate action plans involving building decarbonization strategies may currently be focused on other steps like procuring renewable energy to meet their electricity needs, requiring installation of renewable energy systems on buildings, raising their energy efficiency standards, and/or engaging in deep energy efficiency retrofits for municipal buildings. All of these steps are important and each city will have a slightly different process for reaching their climate goals.

city-owned buildings on January 14, 2020.<sup>132</sup> This is significant because all city-owned buildings use electricity generated by hydropower so most of the emissions associated with these buildings come from their use of natural gas.<sup>133</sup> This was a first step for San Francisco and the second step addressing all new buildings came only a few days later when it adopted a reach code that requires all new buildings in the city to achieve higher levels of energy efficiency if they include natural gas hookups.<sup>134</sup>

Los Angeles Mayor Eric Garcetti recently issued an executive directive committing city-owned buildings to be 100% carbon free in their operations and reduce the carbon-intensity of building materials as well.<sup>135</sup> Los Angeles appears to be the first city to

---

132 Mallory Moench, *SF bans natural gas in new city buildings, plans all construction ban*, S. F. CHRONICLE (Jan. 23, 2020) <https://www.sfchronicle.com/business/article/SF-bans-natural-gas-in-new-city-buildings-may-14984899.php>. Joshua Sabatini, *SF passes law to make new government buildings all electric*, S.F. EXAMINER (Jan. 14, 2020) <https://www.sfexaminer.com/news/sf-passes-law-to-make-new-government-buildings-all-electric/>.

133 Id. About 44% of the city's emissions come from buildings, 94% of emissions from city-owned buildings come from natural gas use and 84% of emissions from commercial and residential buildings come from natural gas.

134 Tom DiChristopher, *Gas Ban Monitor: San Francisco joins movement; Arizona GOP goes on offense*, S&P GLOBAL: MARKET INTELLIGENCE (Feb. 10, 2020) <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/gas-ban-monitor-san-francisco-joins-movement-arizona-gop-goes-on-offense-57031549>.

135 Press Release, Mayor Eric Garcetti, City of Los Angeles, Mayor Garcetti Launches L.A.'s 'Decade of Action' to Fight the Climate Crisis (Feb. 10, 2020) <https://www.lamayor.org/mayor-garcetti-launches-la%E2%80%99s-%E2%80%98decade-action%E2%80%99-fight-climate-crisis>. Executive Directive No. 25: L.A.'s Green New Deal: Leading By Example, Mayor Eric Garcetti, City of Los Angeles, (Feb. 10, 2020) <https://www.lamayor.org/sites/g/files/wph446/f/page/>





tackle the issue of embodied carbon—accounting for all of the carbon emissions “embodied” in the building from resource extraction, processing, and production of the materials to building construction, deconstruction, and material disposal.<sup>136</sup> Of the total energy consumed in a building’s life cycle, embodied energy accounts for 10%-38% of total energy use for conventional buildings and 9%-46% for more energy-efficient buildings.<sup>137</sup> This announcement comes as Los Angeles already has 26 all-electric city-owned buildings in development, totaling \$1 billion in construction and 2 million square feet.<sup>138</sup>

In January 2020, Seattle Mayor Jenny Durkan signed an executive order that will transition new and substantially renovated municipal buildings away from using natural gas.<sup>139</sup> The city is also working

on creating a strategy by January 2021 to electrify all existing city buildings.<sup>140</sup> It’s worth noting that these steps are being taken in the face of a newly-created, well-funded opposition campaign that began in response to Seattle considering a proposal in September 2019 to prohibit the use of natural gas in new homes and buildings.<sup>141</sup> The proposal was delayed due to calls for more analysis on the potential impacts by labor unions, real estate groups, appliance manufacturers and retailers, and the local gas utility.<sup>142</sup> Those groups have quickly banded together and recruited other interested parties to form a new initiative, the Partnership for Energy Progress, with the goal of blocking local restrictions on natural gas in Oregon and Washington.<sup>143</sup>

In October 2019, Boston Mayor Marty Walsh

---

[file/20200210ExecutiveDirective25.pdf](#)

136 SØREN E. LUTKEN & PER HARRY WRETTLIND, UNEP DTU PARTNERSHIP, WORKING PAPER SERIES No. 13, CITY BASED CARBON BUDGETS FOR BUILDINGS 3 (2016), [http://www.unepdtu.org/-/media/Sites/Uneprioe/Working%20Papers/Working-Paper-13\\_LCD\\_final.ashx?la=da](http://www.unepdtu.org/-/media/Sites/Uneprioe/Working%20Papers/Working-Paper-13_LCD_final.ashx?la=da).

137 Cassandra L. Thiel et al., *A Materials Life Cycle Assessment of a Net-Zero Energy Building*, 6 ENERGIES 1125, 1127 (2013). Available at <http://www.mdpi.com/1996-1073/6/2/1125/htm>.

138 Maria Stamas, *Los Angeles city-owned buildings to go 100% carbon free*, GREENBIZ (Feb. 18, 2020) <https://www.greenbiz.com/article/los-angeles-city-owned-buildings-go-100-carbon-free>.

139 Katie Pyzyk, *Seattle to transition city-owned buildings away from fossil fuels*, SMART CITIES DIVE (Jan. 10, 2020) <https://www.smartcitiesdive.com/news/seattle-jenny-durkan-green-new-deal-fossil-fuels-buildings/570158/>. Press Release, Mayor Jenny A. Durkan, Office of the Mayor, City of Seattle, Mayor Durkan Commits City of Seattle to New Actions to Fight Climate Change through Executive Order on Green New Deal (Jan. 8, 2020) <https://durkan.seattle.gov/2020/01/mayor-durkan-commits-city-of-seattle-to-new-actions-to-fight-climate-change-through-executive-order-on-green-new-deal/>.

---

140 Id.

141 Tom DiChristopher, *How Seattle stakeholders put the brakes on the city’s proposed gas ban*, S&P GLOBAL: MARKET INTELLIGENCE (Sept. 24, 2019) <https://www.spglobal.com/marketintelligence/en/news-insights/trending/C911DAw5VZY3jkQbq5zYeA2>. Hal Bernton and Daniel Beekman, *Natural gas industry’s \$1 million PR campaign sets up fight over Northwest’s energy future*, THE SEATTLE TIMES (Dec. 22, 2019) <https://www.seattletimes.com/seattle-news/natural-gas-industrys-1-million-pr-campaign-sets-up-fight-over-northwests-energy-future/> (“The documents point to several Northwest cities considering policies and describe a multiyear campaign in which Partners for Energy Progress will aim paid advertising at ‘key audiences in Washington and Oregon’ while mobilizing allies in policy debates. The regional campaign will push a ‘positive’ message about gas, leaving attacks on specific proposals to local groups.”).

142 Daniel Beekman, *Seattle City Council to consider ban on natural gas for new homes, buildings*, THE SEATTLE TIMES (Sept. 5, 2019) <https://www.seattletimes.com/seattle-news/politics/seattle-city-council-to-consider-ban-on-natural-gas-for-new-buildings/>.

143 *About Our Partnership*, PARTNERSHIP FOR ENERGY PROGRESS (2020) <https://www.pepnw.org/about-us/#partners>.



announced that the city had updated its Climate Action Plan to require all new city buildings be designed to be carbon-neutral.<sup>144</sup> The city is also proposing to “lead by example by retrofitting municipal buildings” for energy efficiency and renewable generation.<sup>145</sup>

For new city buildings, the Boston’s zero net carbon standard seems like it will involve fossil fuel-free heating.<sup>146</sup> The plan also includes guidelines for transitioning city-funded affordable housing to zero carbon.<sup>147</sup> Going beyond city-owned buildings to decarbonize all large buildings could cut citywide emissions nearly 40% by 2050 compared to business-as-usual projections.<sup>148</sup> Boston’s Climate Action Plan calls for developing plans to decarbonize large buildings potentially through performance standards integrated into the zoning code.<sup>149</sup>

The City of Pittsburgh is considering an ordinance to require all new buildings or major renovations of buildings on city-owned property to be net-zero

energy ready.<sup>150</sup> This requirement would mean city buildings should be highly energy efficient and ready to produce renewable energy on-site to offset their emissions. Although Pittsburgh’s proposal is more of a mandate to generate renewable energy to offset continued fossil fuel use, it still represents an awareness of the need to address natural gas use in buildings. The Pittsburgh City Council will consider the proposal at hearing on May 20, 2020.<sup>151</sup> The city released its first annual energy benchmarking report for municipal buildings in May 2019.<sup>152</sup>

On February 6, 2020, New York Mayor Bill de Blasio announced his 2020 agenda, Blueprint to Save Our City, as part of his State of the City Address. Part of the Save Our Future portion of the blueprint calls for an end to natural gas and fossil fuel use in large

---

144 Jason Plautz, *Boston to require carbon neutral design for new city buildings*, SMART CITIES DIVE (Oct. 9, 2019) <https://www.smartcitiesdive.com/news/boston-to-require-carbon-neutral-design-for-new-city-buildings/564624/>. See CITY OF BOSTON, CLIMATE ACTION PLAN, 2019 UPDATE (Oct. 2019) [https://www.boston.gov/sites/default/files/imce-uploads/2019-10/city\\_of\\_boston\\_2019\\_climate\\_action\\_plan\\_update\\_4.pdf](https://www.boston.gov/sites/default/files/imce-uploads/2019-10/city_of_boston_2019_climate_action_plan_update_4.pdf).

145 CITY OF BOSTON, CLIMATE ACTION PLAN, 2019 UPDATE 35 (Oct. 2019) [https://www.boston.gov/sites/default/files/imce-uploads/2019-10/city\\_of\\_boston\\_2019\\_climate\\_action\\_plan\\_update\\_4.pdf](https://www.boston.gov/sites/default/files/imce-uploads/2019-10/city_of_boston_2019_climate_action_plan_update_4.pdf).

146 *Id.* at 36.

147 *Id.*

148 *Id.* at 35.

149 *Id.*

---

150 Ordinance amending and supplementing the Pittsburgh Code of Ordinances, Title Nine - Zoning, Chapter 915 - Environmental Performance Standards, subsection 915.06, Sustainable Development for Publicly Financed Buildings, by deleting certain language and adding a new subsection 915.08 titled “Sustainable Development for City Owned Facilities” (updated Feb. 7, 2020) [https://apps.pittsburghpa.gov/redtail/images/8487\\_Sustainable\\_Development\\_for\\_City\\_Owned\\_Facilities\\_2\\_7\\_2020.pdf](https://apps.pittsburghpa.gov/redtail/images/8487_Sustainable_Development_for_City_Owned_Facilities_2_7_2020.pdf). A version of this ordinance was previously passed by the City Council and signed by Mayor Bill Peduto in October 2019, but it was later deemed invalid because it was not sent to the Commission on Planning per Pittsburgh City Code, Chapter 922.05. *Ordinance 2019-1995*, CITY OF PITTSBURGH, PENNSYLVANIA LEGISLATIVE DATABASE <https://pittsburgh.legistar.com/LegislationDetail.aspx?ID=4121991&GUID=CCA6A140-B0EA-4535-BBEE-9583426B9B54>.

151 *Hearing Notices: Proposed Zoning Text Amendment - Sustainable Development for City-Owned Facilities*, CITY OF PITTSBURGH, PENNSYLVANIA <https://pittsburghpa.gov/dcp/notices>.

152 CITY OF PITTSBURGH, DEP’T OF CITY PLANNING, SUSTAINABILITY AND RESILIENCE DIV., PITTSBURGH MUNICIPAL BUILDING BENCHMARKING REPORT (May 2019) [https://apps.pittsburghpa.gov/redtail/images/6381\\_pgh-benchmarkingreport-r5-WEB.pdf](https://apps.pittsburghpa.gov/redtail/images/6381_pgh-benchmarkingreport-r5-WEB.pdf).





building systems in New York City by 2040, starting in government buildings.<sup>153</sup> The city seems to envision using permitting “to ensure that new permits for building systems are aligned with our goal of carbon neutrality by 2050.”<sup>154</sup> Some details have trickled out since the announcement, notably a clarification that the Mayor did not mean natural gas will no longer be piped into buildings, but that the focus will be on transitioning away from electricity generated from natural gas.<sup>155</sup>

New York City is now undertaking a “comprehensive review” of how the city can end the expansion of fossil fuel infrastructure following an executive order issued by Mayor Bill de Blasio in February 2020.<sup>156</sup> The focus seems to be on designing a gradual transition process<sup>157</sup> and assessing how

other local laws could play a role in encouraging buildings to electrify. One such existing law is the energy efficiency retrofitting requirement adopted in 2019 alongside the NYC Retrofit Accelerator, which provides technical support and connects building owners to incentives.<sup>158</sup> Notably, New York state law doesn’t prohibit local governments from enacting limits or bans on gas in new construction, so cities in New York could start adopting restrictions like those in California and Brookline, MA.<sup>159</sup>

Salt Lake City is expected to be the next city to draft and adopt a local ordinance requiring new buildings funded by the city to be electric and emission free by 2023.<sup>160</sup> The city is already working on requiring new multi-family buildings be all-electric as part of its involvement in the Building Electrification Initiative.<sup>161</sup>

---

153 Press Release, Office of the Mayor, City of New York, State of the City 2020: Mayor de Blasio Unveils Blueprint to Save Our City (Feb. 6, 2020) <https://www1.nyc.gov/office-of-the-mayor/news/064-20/state-the-city-2020-mayor-de-blasio-blueprint-save-our-city#/0>.

154 Id.

155 Tom DiChristopher, *How New York City plans to end natural gas, oil use in buildings*, S&P GLOBAL: MARKET INTELLIGENCE (Feb. 25, 2020) <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/how-new-york-city-plans-to-end-natural-gas-oil-use-in-buildings-57232171>.

156 Executive Order No. 52, Statement of Administration Policy Against Addition of Infrastructure that Expands the Supply of Fossil Fuels in new York City, The City of New York, Office of the Mayor (Feb. 6, 2020) <https://www1.nyc.gov/assets/home/downloads/pdf/executive-orders/2020/eo-52.pdf>.

157 Tom DiChristopher, *How New York City plans to end natural gas, oil use in buildings*, S&P GLOBAL: MARKET INTELLIGENCE (Feb. 25, 2020) <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/how-new-york-city-plans-to-end-natural-gas-oil-use-in-buildings-57232171>.

## Recent State-Level Electrification Efforts

Most of the building decarbonization activity is at the local level now, but some states are studying their options and outlining steps for the transition away

---

158 Id.

159 Danielle Muoio and Marie J. French, *New York slow to curb natural gas in new construction*, POLITICO (Feb. 26, 2020) <https://www.politico.com/states/new-york/albany/story/2020/02/25/new-york-slow-to-curb-natural-gas-in-new-construction-1263585>.

160 @SLCMayor, TWITTER (Mar. 2, 2020 8:54 PM), <https://twitter.com/slcmayor/status/1234658323892326401>.

161 Heather May, *Salt Lake City to building developers: Go electric*, THE SALT LAKE TRIBUNE (Mar. 10, 2020) <https://www.sltrib.com/news/environment/2020/03/10/slc-building-developers/>.



from natural gas use in buildings at the state level. Some of these planning efforts are part of states' larger climate action goals and some appear to be in response to local action. State-level action would provide a consistent standard across the state, eliminate potential tensions between state and local law, and has the potential to deliver larger climate benefits.

One of the seven key strategies of New Jersey's Energy Master Plan is "reducing energy consumption and emissions from the building sector through decarbonization and electrification of new and existing buildings, including the expansion of statewide net zero carbon homes incentive programs, the development of EV-ready and Demand Response-ready building codes, and the establishment of a long-term building decarbonization roadmap."<sup>162</sup> The Plan, announced in January 2020, aims to address both new and existing buildings with steps toward electrification, enhanced energy efficiency, and net zero carbon new construction.<sup>163</sup>

Maine adopted a law in June 2019 that provides a definition for "beneficial electrification" as meaning electrification of a technology that reduces fossil fuel use.<sup>164</sup> The law categorizes beneficial electrification

as part of energy efficiency programs that are implemented by the Efficiency Maine Trust.<sup>165</sup> The law directed the Trust to study barriers to beneficial electrification in the transportation and heating sectors.<sup>166</sup> The study, which was completed in January 2020, provides an analysis of social, technological, legal, regulatory, and economic barriers to beneficial electrification in those two sectors.<sup>167</sup> Maine has started to address the heating sector by adopting a law that sets a goal of installing 100,000 heat pumps in the state by 2025.<sup>168</sup> This goal will be accomplished with incentives through Efficiency Maine Trust and in coordination with the state housing authority to ensure access for low-income households as well.<sup>169</sup>

---

in reduction in the use of a fossil fuel, including electrification of a technology that would otherwise require energy from a fossil fuel, and that provides a benefit to a utility, a ratepayer or the environment, without causing harm to utilities, ratepayers or the environment, by improving the efficiency of the electricity grid or reducing consumer costs or emissions, including carbon emissions." An Act To Support Electrification of Certain Technologies for the Benefit of Maine Consumers and Utility Systems and the Environment, H.P. 1071 <http://legislature.maine.gov/legis/bills/getPDF.asp?paper=HP1071&item=1&snum=129>.

165 Id.

166 Id.

167 EMILY CUSHMAN, ET. AL., EFFICIENCY MAINE TRUST, BENEFICIAL ELECTRIFICATION: BARRIERS AND OPPORTUNITIES IN MAINE (Jan. 31, 2020) [https://www.energymaine.com/docs/EMT\\_Beneficial-Electrification-Study\\_2020\\_1\\_31.pdf](https://www.energymaine.com/docs/EMT_Beneficial-Electrification-Study_2020_1_31.pdf).

168 Press Release, office of Governor Janet T. Mills, State of Maine, Governor Mills Signs Bill Promoting Energy Efficient Heat Pumps in Maine (June 14, 2019) <https://www.maine.gov/governor/mills/news/governor-mills-signs-bill-promoting-energy-efficient-heat-pumps-maine-2019-06-14>.

169 Id.

---

162 Press Release, State of New Jersey, *Governor Murphy Unveils Energy Master Plan and Signs Executive Order Directing Sweeping Regulatory Reform to Reduce Emissions and Adapt to Climate Change* (Jan. 27, 2020) <https://www.nj.gov/governor/news/news/562020/approved/20200127a.shtml>.

163 2019 New Jersey Energy Master Plan: Pathway to 2050 [http://d31hzhk6di2h5.cloudfront.net/20200127/84/84/03/b2/2293766d081ff4a3cd8e60aa/NJBPU\\_EMP.pdf](http://d31hzhk6di2h5.cloudfront.net/20200127/84/84/03/b2/2293766d081ff4a3cd8e60aa/NJBPU_EMP.pdf).

164 Full definition: "electrification of a technology that results



Rhode Island Governor Gina Raimondo issued an executive order in July 2019 directing a series of actions to transform the heating sector in connection with the state’s goal to reduce GHGs by 80% below 1990 levels by 2050.<sup>170</sup> The state commissioned a study on transformation of its heating sector to produce recommendations for work toward a state framework. The study evaluated various potential solutions: improving building energy efficiency, replacing current fossil heating fuels with carbon-neutral renewable gas or oil, or replacing existing fossil-fueled boilers and furnaces with electric ground source or air source heat pumps powered by carbon-free electricity.<sup>171</sup> The bottom-line is “...that cost-effective energy efficiency retrofits will reduce both emissions and costs to consumers, but cannot eliminate the need for heat in hundreds of thousands of existing buildings in the state. Thus, some combination of the decarbonized heat alternatives—electrification with heat pumps or decarbonized fuels—will also need to be adopted in virtually all of Rhode Island’s buildings.”<sup>172</sup> It will be interesting to see how Rhode Island embraces this “all of the above” approach and develops a framework for transforming heating in new and existing buildings.

In January 2020, the California Public Utilities Commission (CPUC) announced a new proceeding to begin the process of moving away from the use of natural gas across the state, including consideration of a just transition to avoid safety issues and stranded costs.<sup>173</sup> The CPUC has acknowledged that state and local laws will reduce demand for natural gas over the next 25 years and is starting to develop both short term and long term strategies to manage this transition.<sup>174</sup>

Another strategy that both municipalities and states can employ is providing incentives for switching out end-use equipment that uses natural gas, like stoves, furnaces, and natural gas dryers, for electric end-use equipment like induction stoves, heat pumps, and electric dryers. Cities can undertake this strategy with minimal concern for potential conflict with state law. The cities of Burlington, Vermont<sup>175</sup> and Boulder, Colorado<sup>176</sup> are two notable examples that launched programs in 2017 and 2018, respectively. The main concern for cities who might want to launch one of these programs is funding because these

---

170 Gina M. Raimondo, Governor, State of Rhode Island, Executive Order 19-06: Heating Sector Transformation to Ensure Reliability and Protect Against Climate Change (July 8, 2019) <https://governor.ri.gov/documents/orders/Executive%20Order%2019-06.pdf>.

171 Press Release, The Brattle Group, Rhode Island Should Pursue an “All of the Above” Approach to Decarbonizing the Heating Sector to Meet State Goals, According to Brattle Economists (April 23, 2020) <https://www.brattle.com/news-and-knowledge/news/rhode-island-should-pursue-an-all-of-the-above-approach-to-decarbonizing-the-heating-sector-to-meet-state-goals-according-to-brattle-economists>.

172 Id.

---

173 Mallory Moench, *California begins planning for transition away from natural gas*, S. F. CHRONICLE (Jan. 22, 2020) <https://www.sfchronicle.com/business/article/California-begins-planning-for-transition-away-14996560.php>.

174 Kavya Balaraman, *California launches rulemaking to manage transition away from natural gas*, UTILITY DIVE (Jan. 17, 2020) <https://www.utilitydive.com/news/cpuc-launches-rulemaking-transition-natural-gas/570653/>.

175 *Cold-Climate Heat Pump Rebate Program*, BURLINGTON ELECTRIC DEPARTMENT <https://www.burlingtonelectric.com/cchp>.

176 *Comfort365 Renewable Heating and Cooling Campaign*, WEPOWER <http://wepowr.com/bouldercomfort365>.



programs are expensive.<sup>177</sup> That's why it's uncommon to see them at the local level and more common to see them at the state level funded with money from the state's publicly-owned utilities and even leveraging federal funds as well. Maine's new heat pump program, mentioned above, is an example of this approach.<sup>178</sup> These programs can also fail to reach low-income residents depending on how they are structured (rebates, special financing), but Burlington's program was designed to prioritize low and middle-income customers and Boulder is redesigning its program in light of this issue in order to reach a broader group.<sup>179</sup>

## Banning Bans in Arizona, Tennessee, and Oklahoma

Arizona Governor Doug Ducey signed HB 2686 into law on February 24, 2020.<sup>180</sup> This new law prevents municipalities in Arizona from adopting local laws to limit or restrict natural gas use in buildings. The law amends state statutes so that municipalities cannot "deny a permit application based on the utility provider proposed," and they cannot pass codes or ordinances that could "have the effect of restricting a person's or entity's ability to use the services of a utility provider."<sup>181</sup> Although the language of the law sounds neutral, protecting all utilities, municipalities have only considered restrictions on natural gas.

The Phoenix New Times reported that a major gas company in Arizona, Southwest Gas, led lobbying efforts for the bill<sup>182</sup> and the bill's sponsors have received major contributions from Southwest Gas.<sup>183</sup>

---

177 For example, the cost of the nationwide State Energy Efficient Appliance Rebate Program developed by the Department of Energy with funding from the American Recovery and Reinvestment Act of 2009 cost \$300 million. *State Energy-Efficient Appliance Rebate Program*, U.S. DEP'T OF ENERGY OFFICE OF ENERGY EFFICIENCY & RENEWABLE ENERGY <https://www.energy.gov/eere/buildings/state-energy-efficient-appliance-rebate-program>.

178 Press Release, office of Governor Janet T. Mills, State of Maine, Governor Mills Signs Bill Promoting Energy Efficient Heat Pumps in Maine (June 14, 2019) <https://www.maine.gov/governor/mills/news/governor-mills-signs-bill-promoting-energy-efficient-heat-pumps-maine-2019-06-14>.

179 *Boulder, Colorado*, BUILDING ELECTRIFICATION INITIATIVE <https://www.beicities.org/cities/boulder>.

*Burlington, Vermont*, BUILDING ELECTRIFICATION INITIATIVE <https://www.beicities.org/cities/burlington>.

---

180 Elizabeth Whitman, *Cities Hate It, But Ducey Signs Bill Banning Local Bans on Natural Gas Anyway*, PHOENIX NEW TIMES (Feb. 24, 2020) <https://www.phoenixnewtimes.com/news/ducey-signs-bill-banning-local-bans-on-natural-gas-into-law-11445713>.

181 H.B. 2686, 54th Leg. 2nd Sess. (Az. 2020). Available at: <https://www.azleg.gov/legtext/54Leg/2R/laws/0003.pdf>.

182 Elizabeth Whitman, *Cities Hate It, But Ducey Signs Bill Banning Local Bans on Natural Gas Anyway*, PHOENIX NEW TIMES (Feb. 24, 2020) <https://www.phoenixnewtimes.com/news/ducey-signs-bill-banning-local-bans-on-natural-gas-into-law-11445713>.

183 Elizabeth Whitman, *Arizona House Passes Industry-Backed Pre-Emption Bill to Keep Natural Gas Flowing*, PHOENIX NEW TIMES (Feb. 12, 2020) <https://www.phoenixnewtimes.com/news/natural-gas-protection>.



The mayors of Phoenix and Tucson criticized the legislation and polling suggests that most Arizonans would prefer to leave decisions about the fate of natural gas in buildings to their local governments.<sup>184</sup>

Arizona was the first state in the country to pass such legislation, but Tennessee and Oklahoma quickly followed. Tennessee’s bill was signed into law on March 20, 2020 and effective immediately.<sup>185</sup> Tennessee’s new law “... prohibits political subdivisions from prohibiting by ordinance, resolution, regulation, code, or any other requirement, the connection or reconnection of a utility service based on the type or source of energy to be delivered to an individual customer.”<sup>186</sup> Oklahoma’s bill was signed into law on May 19, 2020.<sup>187</sup> Oklahoma’s new law will be effective on November 1, 2020 and provides that “No city, town or county shall adopt real estate development building or construction ordinances, rules or codes restricting or prohibiting connections to the facilities of utility providers lawfully operating in this state, nor may any city, town or county discriminate in the

adoption of such rules or codes against one or more utility providers based in whole or in part upon the nature or source of the utility service provided.”<sup>188</sup>

Four other states are considering similar bills: Louisiana,<sup>189</sup> Missouri, Minnesota, and Mississippi.<sup>190</sup> The bills all feature near-identical language to prevent cities from banning natural gas as an energy source in new buildings. These bills and the laws discussed above raise some of the same debates about the roles of states and local governments that arose when local governments considered or adopted restrictions on fracking and states took action to override or invalidate local laws. The conflicts between states and their local governments around fracking started in 2013 in Pennsylvania<sup>191</sup> and spread over time to Texas, Colorado, Louisiana, West Virginia, North Carolina, Oklahoma, Florida, New Mexico, Ohio, and California.<sup>192</sup>

---

[bill-southwest-gas-arizona-legislature-11442203](#).

184 Elizabeth Whitman, *Cities Hate It, But Ducey Signs Bill Banning Local Bans on Natural Gas Anyway*, PHOENIX NEW TIMES (Feb. 24, 2020) <https://www.phoenixnewtimes.com/news/ducey-signs-bill-banning-local-bans-on-natural-gas-into-law-11445713>.

185 S.B. 1934, AN ACT to amend Tennessee Code Annotated, Title 5; Title 6; Title 7; Title 65 and Title 68, relative to connections of utility services and mechanical systems. Available at: <http://wapp.capitol.tn.gov/apps/BillInfo/Default.aspx?BillNumber=SB1934>.

186 Id.

187 H.B. No. 3619, Cities and towns; prohibiting certain codes and ordinances; effective date. Available at: <https://legiscan.com/OK/text/HB3619/id/2185004>.

188 Id.

189 S.B. 492, UTILITIES: Preempts local regulation of the use of natural gas utility service. Available at: <https://www.legis.la.gov/legis/BillInfo.aspx?s=20RS&b=SB492&sbi=y>.

190 Nichola Groom and Richard Valdmanis, *Backed by industry, several U.S. states propose blocking cities from banning natural gas*, REUTERS (Mar. 5, 2020) <https://www.reuters.com/article/us-climatechange-naturalgas/backed-by-industry-several-u-s-states-propose-blocking-cities-from-banning-natural-gas-idUSL8N2AX770>.

191 The Pennsylvania Legislature passed Act 13, which superseded local zoning codes and environmental laws to allow oil and gas operations across the state, and local governments sued. The Pennsylvania Supreme Court ruled that provisions of Act 13 violated the state constitution and upheld the rights of municipalities to use zoning to regulate where fracking could occur in their communities. *Robinson Twp. v. Commonwealth*, 623 Pa. 564 (Pa. 2013).

192 Zahara Hirji and Lisa Song, *Map: The Fracking Boom, State by State*, INSIDE CLIMATE NEWS (Jan. 20, 2015) <https://insideclimatenews.org/>



## Conclusion

There is clearly momentum in cities and states to require increasingly electric new buildings, but it remains an open question how far this movement will spread. In the meantime, I see the beginnings of a new focus on existing buildings. In order to decarbonize the entire building stock, states and cities will need to explore options to upgrade appliances and retrofit systems in existing buildings. Some cities are beginning to look at policies to electrify existing buildings. Bellingham, Washington's Climate Task Force has proposed requiring all existing buildings to convert to electric space and water heating by 2040.<sup>193</sup> Some large institutions, like the University of California, are assessing how to transition away from natural gas in the buildings they own and operate.<sup>194</sup> For now, there are lessons to be learned from the legal process California has developed to approve local standards and the wide variety of policies being implemented in California cities. It remains to be seen what will happen in Massachusetts, but it's safe to say that as more

cities experiment with new approaches, we will learn more about untested areas of tension with state law that may inform other local climate action efforts in the future.

---

[news/20150120/map-fracking-boom-state-state](https://www.ballotpedia.org/Fracking_preemption_conflicts_between_state_and_local_governments). *Fracking preemption conflicts between state and local governments*, BALLOTPEDIA (2019)  
[https://ballotpedia.org/Fracking\\_preemption\\_conflicts\\_between\\_state\\_and\\_local\\_governments](https://ballotpedia.org/Fracking_preemption_conflicts_between_state_and_local_governments).

193 This proposal would still allow natural gas cooking appliances to remain in use after 2040. Mike Baker, *To Fight Climate Change, One City May Ban Heating Homes with Natural Gas*, N.Y. TIMES (Jan. 5, 2020)  
<https://www.nytimes.com/2020/01/05/us/bellingham-natural-gas-ban.html>.

194 A. MEIER, ET. AL., UNIVERSITY OF CALIFORNIA STRATEGIES FOR DECARBONIZATION: REPLACING NATURAL GAS, UC TOMKAT CARBON NEUTRALITY PROJECT (Feb. 2018)  
[https://www.nceas.ucsb.edu/sites/default/files/2020-02/UC\\_TomKat\\_Replacing\\_Natural\\_Gas\\_Report\\_2018.pdf](https://www.nceas.ucsb.edu/sites/default/files/2020-02/UC_TomKat_Replacing_Natural_Gas_Report_2018.pdf).