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LEGAL LEVERS TO PROMOTE BUILDING ELECTRIFICATION

Initial Research Brief

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Induction Stove

Introduction

Problem Statement

The use of fossil fuels in buildings is a substantial threat to public health in multiple ways, two of which are discussed in this brief: First, burning fossil fuels indoors directly harms the health of the people living in the buildings where it is used.[1] Second, fossil-fuel combustion is a major source of greenhouse gases—about 13% of the United States' greenhouse-gas emissions come from in-building combustion[2]—and the exacerbation of climate change is itself an urgent and existential public-health threat.[3] Reducing fossil-fuel combustion in buildings will also reduce racial and economic disparities, since Black, Brown, and low-income people experience both climate and direct health impacts to a greater extent than other groups.[4] This helps ensure that everyonehas access to healthy living conditions and equal opportunity to breathe clean air.

For these reasons, policies to encourage "building electrification"—replacing on-site fossil-fuel combustion with electric power—are critically important. Federal policy on this issue has been slow and mostly limited to subsidy programs, most notably under the Inflation Reduction Act. The current administration appears unlikely to advance building electrification, and may

even reduce the level of federal resources that are available. This leaves many state and local governments to fill the gap, which they have done with a wide variety of policies aimed at encouraging or mandating building electrification.[5] Some complications remain, however: in particular, the federal Energy Policy and Conservation Act (EPCA) prohibits certain kinds of state and local action related to appliances with federal energy-efficiency standards, and recent litigation has expanded this prohibition, leading to restrictions on building-electrification policies in some Western states.

Executive Summary

The goal of this brief is to provide a high-level overview of the landscape of building-electrification policies at the state and local level. The brief begins with a discussion of federal preemption under EPCA, and particularly the impact of the *California Restaurant Association v. City of Berkeley* case (*Berkeley*), which injected a new interpretation of state and local authority into what had previously been a relatively settled field.[6] The brief then describes several existing and potential policy approaches to promote building electrification at the subnational level: appliance emission standards, limitations on gas-distribution networks, building energy codes for new construction or renovation, and building performance standards. This is not intended to be an exhaustive list of building-electrification policies, but rather a survey of those that, in PHLC's judgment, appear most relevant in the immediate future.

Building electrification is a rapidly developing field of policy. Several of these topics are in flux, and many deserve additional research and analysis. This version of the brief is an update to the original brief, produced in early 2024. New policy and legal developments are expected to continue, particularly as the impacts of the Berkeley case continue to play out.

Federal Preemption through the Energy Policy and Conservation Act

The federal Energy Policy and Conservation Act (EPCA) includes a provision that limits state and local authority to create energy-efficiency standards for many appliances. In the case *California Restaurant Association v. City of Berkeley*, the federal appeals court with jurisdiction over most of the West held that this provision also prevented the City of Berkeley from prohibiting the installation of gas pipes in new construction. The impact of the case is still somewhat uncertain: there is some chance that it could lead to restrictions on other types of building-electrification policies, and there is some chance that courts in other parts of the country could take up a similar interpretation, but neither is certain. EPCA and the *Berkeley* case are described in more

detail below, and their potential impact on other policies reviewed in this brief are noted in the relevant sections.

The Energy Policy and Conservation Act

EPCA is a federal law that creates energy-efficiency standards for many consumer and industrial appliances, as well as enacting water-conservation standards and other energy-related policies not relevant here. EPCA's energy-efficiency standards apply to many gas appliances, including water heaters, space heaters, and consumer stoves.[7] EPCA also authorizes the U.S. Department of Energy (DOE) to make those standards more stringent and to create new standards. For example, on January 29, 2024, the DOE finalized standards for gas stoves, capping the amount of energy they can use per year of average use.[8]

EPCA also "preempts" certain state and local regulations, meaning that it prevents those regulations from taking effect.[9] Until recently, EPCA was generally understood to preempt state and local energy efficiency standards—that is, the same sort of regulations that EPCA created at the federal level.[10] There are numerous carve-outs for specific state standards that have been added over the years, mostly to allow preexisting standards to continue.[11] There are also two more generally applicable exceptions to EPCA preemption—one for "unusual and compelling circumstances" and one for certain types of flexible building codes—which are discussed in Building Codes for New Construction or Renovation, below.

The California Restaurant Association v. Berkeley Case

The understanding that EPCA's preemption of state and local regulation mirrors EPCA's grant of federal regulation was altered, for most of the West, by the *California Restaurant Association v. City of Berkeley* case. *Berkeley* dealt with a 2019 municipal ordinance that prohibited the installation of gas infrastructure—the pipes that run gas from the gas meter to individual appliances—in most new homes.[12] The California Restaurant Association (CRA) challenged this ordinance, arguing, among other claims, that it was preempted by EPCA as a "regulation concerning the…energy use" of EPCA-covered appliances.[13] Although the first court to hear the case rejected this argument, the CRA appealed the case to the Ninth Circuit Court of Appeals, and won.[14]

The appellate court's reasoning for siding with the CRA can be understood in three steps: First, the court decided that a direct prohibition on the use of EPCA-covered appliances would likely be preempted by EPCA because it would reduce the "energy use" of those appliances to zero.[15] Second, the court held that Berkeley's ordinance, although it did not *directly* ban gas appliances, *effectively* prohibited gas appliances from operating and therefore "concern[ed]" their "energy

use."[16] Finally, it argued that, because EPCA has a special preemption exception for "building codes for new construction," its preemption could apply to ordinances like Berkeley's.[17] Based on this reasoning, the appellate judges decided that EPCA preempts "building code[s]" that "prohibit[] natural gas piping in new construction…from the point of delivery at the gas meter."[18]

Importantly, the *Berkeley* opinion says that there is a limit to preemption under EPCA—that is, that it does not invalidate every law that could possibly stop an appliance from being used.[19] In particular, the court explains that its opinion "doesn't touch on" regulation of the distribution of gas to the meters of individual buildings.[20] This is, in part, because under both the Natural Gas Act and traditional practice, state and local governments have control over that stage of the gas system.[21]

In January 2024, the court of appeals denied Berkeley's request for it to review the case "en banc"—that is, to convene a panel of eleven judges to rehear the case and override the initial appellate opinion, which was written by three judges.[22] Although the court did not take the case en banc, the original three-judge panel did amend its opinion, emphasizing the limitations described above: that the opinion is only meant to apply to "building codes for new construction" that "prohibit[] natural gas piping in new construction" starting "at the gas meter."[23] In addition, a group of eight judges, supported by three more, filed a dissent to the decision not to review the case en banc, "urg[ing] any future court that interprets [EPCA] not to repeat the panel opinion's mistakes."[24] While the judges that interpret EPCA in the future will not be required to follow this dissent, it could help persuade those judges not to expand the reasoning of *Berkeley* to other regulations or to other areas of the country.

Potential Implications for Building-Electrification Policies

The *Berkeley* case could impact the ability of state and local governments to enact building-electrification policies, depending on location and the type of regulation. The impacts on the specific policies reviewed in this brief are discussed in the relevant sections below. However, there are certain general points that are helpful to keep in mind.

First, the *Berkeley* decision only applies in the states and territories under the jurisdiction of the Ninth Circuit Court of Appeals. These are Alaska, Arizona, California, Guam, Hawai'i, Idaho, Montana, Nevada, the Northern Marianas, Oregon, and Washington.[25] (Both this region and the court itself are referred to as the "Ninth Circuit.") Other courts in other areas of the country are free to come to their own interpretation of EPCA's preemption provision; they will almost certainly take the Ninth Circuit's interpretation into account, but they are not required to follow it.[26] This is where the dissent to the en banc decision is most important: courts outside the

Ninth Circuit will also be able to take that dissent into account, and may decide to give it greater weight than the *Berkeley* opinion itself.

Second, there is a question as to the extent to which the *Berkeley* opinion will be used to invalidate other types of regulation. Taken to its logical extremes, the core logic—that EPCA preempts any regulation that affects the amount of energy appliances use—could invalidate a large number of regulations. The amendments to the opinion appear to avoid that result in at least two ways: One is that they stress the importance of Berkeley's ordinance being a "building code for new construction," a type of regulation for which EPCA has special rules.[27] This implies that regulations that are clearly not building codes, such as laws that regulate existing buildings to the same extent as new construction, may not be preempted under *Berkeley*. The amendments also emphasize that the ruling's reasoning addresses only the regulation of gas infrastructure between the gas meter and the appliance; that is, it is not meant to affect state and local power to regulate utility distribution up to the point at which the gas is delivered to the meter.[28]

Despite these limits, the *Berkeley* ruling led to a cascade of copycat litigation challenging various state and local policies across the country. PHLC has identified ten as of January 2025:[29]

- *Rivera v. Washington Building Codes Council* (filed May 2023): Challenge to an earlier version of Washington State's energy code, which would have required some new buildings to use heat pumps for space heating and hot water. (This case was withdrawn after Washington amended its energy code to remove this requirement.)
- *Mulhern Gas Co. v. Rodriguez* (filed October 2023): Challenge to New York State law calling for code amendments that will prohibit installation of fossil-fuel appliances in certain types of new buildings.
- *Association of Contracting Plumbers v. City of New York* (filed December 2023): Challenge to New York City law governing the maximum amount of carbon dioxide that fuel combusted in newly constructed buildings may emit.
- *Colorado Apartment Association v. Ryan* (filed April 2024): Challenge to Colorado and Denver building performance standards.
- *Rivera v. Anderson* (filed May 2024): Challenge to revised Washington State energy code, which no longer requires buildings to use heat pumps, instead strengthening energy-efficiency requirements.
- *Restaurant Law Center v. Denver* (filed July 2024): Challenge to Denver ordinance and building-code provisions requiring some new construction to use electric appliances for

certain heating purposes and requiring replacement of some fossil-fuel appliances with electric appliances at end of life.

- *National Association of Home Builders v. Montgomery County* (filed October 2024): Challenge to Montgomery County ordinance calling for code amendments to establish "all-electric" requirements for certain new buildings.
- *National Association of Home Builders v. District of Columbia* (filed October 2024): Challenge to DC law calling for code amendments to establish "net-zero-energy" requirements for certain buildings.
- *Rinnai America Corp. v. South Coast Air Quality Management District* (filed December 2024): Challenge to California regional regulator's rule requiring certain building water heaters to eliminate nitrogen-oxide emissions.
- *Maryland Building Industry Association v. McIlwain* (filed January 2025): Challenge to Maryland's building performance standard.

Importantly, the proliferation of litigation does not imply that these cases are likely to succeed, or that the types of regulations that have been challenged are likely to be struck down. Each of these challenges requires extending the Berkeley opinion to new types of regulation,[30] and most require applying it outside of the Ninth Circuit, where it is not binding precedent.

Meanwhile, state and local governments have continued to move forward with building-electrification and related policies. Specific policy developments since the Berkeley case are described elsewhere in the report; the general reaction to this new legal development has been some hesitation and adjustment in policy development, but not an abandonment of these policy campaigns.

Emission Standards

Many state and local government laws limit the amount of pollution emitted by an appliance, a fuel source, or a building, potentially protecting people from indoor and outdoor air pollution on a more equitable basis than regulations that apply only to new buildings. While these regulations do not directly address building electrification, they may tend to promote the use of electric appliances because of the high level of emissions that fossil-fuel combustion causes. In particular, some "zero-emission" regulations require the complete elimination of one or more pollutants, which can effectively prevent onsite combustion. Because of the ability for these regulations to improve overall air quality in an area, they may be incorporated into the regulatory system of the federal Clean Air Act, which could protect them from preemption.

Emissions Standards Generally

Emissions standards are regulations that limit the amount of pollutants that a given appliance, fuel, or building can emit. They may target one or more of the "criteria pollutants"—the six air pollutants which have been specifically targeted by federal and state law for their public-health impacts[31]—or they may target greenhouse gases. Appliance emissions standards are generally expressed in terms of emissions per unit of output, such as kilograms of carbon dioxide per joule of heat for space or water heaters, while fuel emissions standards are usually measured against the energy provided by the fuel, for example, emissions per million British thermal units (MBtu).[32] Building emissions standards are discussed under building performance standards, below.

Emissions standards are not explicitly aimed at building electrification. However, because the combustion of fossil fuels emits a large number of both criteria pollutants and greenhouse gases, emissions standards tend to encourage electrification.[33] Sufficiently stringent standards, including the zero-emissions appliance standards discussed below, may effectively require switching to electric appliances because no fossil-fuel appliances meet the requirements.

Emissions standards that are lax enough to allow some fossil-fuel use are unlikely to be preempted by EPCA, even under *Berkeley*, because they neither regulate energy efficiency nor prohibit the use of any particular fuel or appliance. Emissions standards that would completely eliminate the use of a fuel type or an appliance *may* be preempted in the Ninth Circuit, because they could be interpreted as prohibitions on the use of that fuel or appliance that apply on the building side of the utility meter. However, emissions standards are typically not expressed as building codes, and therefore they may be distinct enough from the ordinance in *Berkeley* to avoid preemption. Finally, as discussed below, there is a possibility that emissions standards targeting criteria pollutants could be incorporated into federal Clean Air Act regulations, and protected from preemption in that way.

Zero-Emission Appliance Standards

Zero-emission appliance standards are regulations that prevent appliances from being sold or installed if they emit any quantity of the targeted pollutant. They are attracting attention as a strategy for reducing criteria pollutants in parts of the country that have persistently high levels of air pollution. California's Bay Area and South Coast regions, for example, have persistent ozone levels far above those permitted by the Clean Air Act. As a result, the regional regulators responsible for those areas have proposed—and, in the Bay Area, enacted—rules that require space and water heaters to have zero nitrogen oxide (NO_x) emissions.[34]

There is some risk that a court following *Berkeley* could interpret EPCA to preempt zero-emission appliance standards. Although emissions reductions, not electrification, is their goal, such standards would effectively require appliances to run on electricity (barring technological developments). These standards also apply directly to EPCA-covered appliances, such as space and water heaters. They do not apply specifically to new buildings, a factor that the *Berkeley* opinion treats as relevant,[35] but because they are appliance standards, they are very similar to other standards that EPCA preempts. Therefore, it is possible that a court would interpret EPCA to preempt them.

One potential means of protecting zero-emission appliance standards from preemption is to incorporate them into federal Clean Air Act regulations, a process sometimes called "federalization." The Clean Air Act requires each state to create a collection of laws and practices, called a state implementation plan (SIP), that will enable the state to meet federal standards for the six criteria pollutants.[36] The U.S. Environmental Protection Agency (EPA) reviews each SIP to ensure that it will result in the state meeting those standards—or, if not, that the SIP is as stringent as currently feasible—and then issues a regulation incorporating the SIP, at which point the elements of the SIP have "the force and effect of law."[37] There is a strong argument that the elements of the SIP are then federal law, and not subject to preemption by other federal law, such as EPCA.[38] And regardless of whether a given regulation is incorporated into a SIP, there is an argument that a regulation that furthers a state's compliance with the Clean Air Act is taken pursuant to federal law and should therefore not be subject to preemption.

Appliance emissions standards have seen substantial progress recently. In 2024, the EPA proposed the inclusion of the zero-emission appliance standards for the Bay Area, as part of California's State Implementation Plan (SIP).[39] In addition, the air regulator for California's South Coast region approved zero-emissions standards for certain appliances; standards for other appliances are likely to follow.[40] Finally, the California Air Resources Board is working toward developing its own zero-emissions standards, which would apply statewide.[41]

On June 4, 2024, Governor Wes Moore issued an Executive Order to implement Maryland's Climate Pollution Reduction Plan, which includes the development of a Clean Heat Standard (CHS) and a Zero-Emission Heating Equipment Standard (ZEHES).[42] Together, CHS and ZEHES represent the Clean Heat Rules, which will improve public health and lower energy costs for businesses and residents. Specifically, ZEHES will establish emissions standards for newly manufactured residential-scale furnaces, boilers, and water heaters. The goal of implementing these standards is to phase out natural gas, propane, and oil heating equipment in favor of zero-emission alternatives like heat pumps.

Fuel Standards

As noted above, there are several other types of emission standards that have implications for electrification. Some fuel-emission standards, such as those enacted in New York City and proposed in Chicago, effectively require the use of electric appliances by capping the permitted emissions of greenhouse gases below the level that fossil fuels can currently achieve.[43] Other fuel standards target the type of fuel—for example, the heavier types of fuel oils—in order to reduce criteria pollutants, but could also prompt buildings to electrify their heating systems.[44]

Sufficiently stringent fuel standards could effectively prohibit the use of fossil-fuel appliances, but they appear less likely to be preempted by EPCA than zero-emission standards, even in the Ninth Circuit. Fuel standards do not directly address appliances and are clearly not building codes, potentially putting them outside of the scope of EPCA preemption under *Berkeley*. They are, however, generally applied on the building side of the meter (they restrict fuel consumption, not sale or delivery), meaning that, under *Berkeley*, they may not be considered gas-distribution regulations that would be further protected from preemption.

Restrictions on Gas-Distribution Infrastructure

State and local governments have traditionally been the primary regulators of gas "distribution"—the portion of the gas infrastructure between the regional or interstate pipelines and individual points of use—a role which includes deciding where to make gas available to potential customers. The *Berkeley* decision, recognizing this, limited itself to preempting regulations that address gas infrastructure inside of a building, but not the network of pipes used to deliver the gas to each building. State and local governments therefore likely still have authority to restrict where distribution infrastructure is located, and therefore where gas is ultimately available for use.

State and Local Authority over Gas Distribution

In the United States, gas is transported from processing plants to its end uses by a large network of pipelines. These are typically divided into "transmission" pipelines, which are larger-capacity pipes that transport gas at high pressures over long distances, and "distribution" pipelines, which transport smaller quantities of gas to individual users.[45] Generally speaking, the federal government is the primary regulator for transmission, and state and local governments are the primary regulators for distribution. This division of authority is recognized most prominently in the Natural Gas Act, which regulates interstate transportation of gas, but specifically avoids regulating local distribution.[46]

Some uses of this regulatory authority effectively prevent the use of gas in a building: for example, a state or locality may decide that it is not worth the cost of including an area in the gas-distribution network, and refuse to allow the utility to extend service there. The basic logic of the *Berkeley* decision implies that such a decision is preempted; that is, that states and localities must allow gas networks anywhere there is demand. That logic would overturn the traditional understanding of state and local authority over gas distribution, however.

The *Berkeley* opinion avoids this problem by distinguishing between gas infrastructure from the transmission pipe to the gas meter, which is sometimes called the "utility side" of the meter, and from the meter to the appliance, sometimes called the "customer side." The opinion says that EPCA only preempts regulation on the customer side, implying that states and localities can still regulate the utility side—even if that means preventing gas from being available to appliances.[47] It is therefore likely that, even in the Ninth Circuit, state and local governments may still cut off the distribution of gas infrastructure, so long as the cutoff occurs on the utility side of the meter.

Options for Distribution Restrictions

There are several ways in which state or local governments could restrict the scope of gas distribution on the utility side of the meter. For publicly owned utilities, the relevant government will likely be able to direct the utility to stop expanding or roll back its distribution network. Privately owned utilities are more complicated, but are still subject to both state and local regulation. Local governments typically own the land or rights-of-way through which utilities run their gas-distribution lines, and utilities must obtain permission to use it through some form of agreement with the government. This agreement—typically a "franchise" or "license"—can set out the specific areas where the utility is or is not allowed to use public property for its distribution network, potentially limiting which areas have access to gas.[48] Franchise and license agreements are also frequently subject to local ordinances, meaning that a local government may be able to simply pass an ordinance preventing, for example, the use of public property for new gas infrastructure.

State governments also have a strong role in regulating private utilities. Because private utilities have a monopoly over the service they provide, states closely monitor and control their activities. This control is usually exerted through a public utility commission (PUC), an appointed or elected body which sets the terms on which utilities offer services to customers. Among other things, PUCs approve gas-network expansions set gas utilities' service areas, the geographical scope within which they may (and often must) provide gas to customers. Theoretically, they could use those powers to block gas expansion, or even roll back existing

gas networks.[49] PUCs can also take other steps to limit gas distribution, such as requiring new customers, and not utilities, to pay for the cost of extending gas-distribution infrastructure to new lots.[50]

There is a small but growing movement toward using utility regulation to encourage electrification. One early example is a proposal to expand gas service to Douglas, MA, which was opposed by environmental advocates at the PUC level.[51] Local government bodies with whom PHLC has been communicating are also considering expansion moratoria. Additionally, several PUCs have been pushing for closer consideration of any utility investment in gas-distribution infrastructure.[52]

Finally, while not a restriction on utility distribution, voters in Ann Arbor have just approved the creation of a separate "sustainable energy utility" that will supplement its existing distribution network.[53] The city plans to use the new municipal utility to purchase renewable energy from local solar installations, own its own solar panels and battery storage, and sell energy at cost to residents that opt into the program—including residents that cannot install their own solar or storage because they do not own their homes or because their homes are not viable for those installations. In doing so, the utility would also create a microgrid to provide resilience against outages in the conventional utility's network.

Neighborhood-Scale Electrification

A related policy approach, sometimes called "neighborhood-scale electrification," is to transition all of the buildings in an area to electric appliances, and then remove the gas-distribution infrastructure in that area. This has been proposed for areas with aging gas infrastructure, where utilities would have to spend large amounts of money to ensure reliability; instead of reinvesting in gas infrastructure, the entire area can be fully electrified, and the gas pipelines can be removed.

Neighborhood-scale electrification is also one means of preventing an inequitable "utility death spiral": Utility bills cover both the cost of the actual gas they consume—which depends on the amount of gas consumed, and is therefore called "volumetric costs"—and a portion of the cost of the infrastructure necessary to provide that gas, called "fixed costs." As customers transition to electric appliances and the utility provides less gas overall, the volumetric costs decrease but the fixed costs remain the same. The result is that fewer customers will share the same fixed costs, driving utility bills higher—and those higher bills could convince more customers to stop using gas, further increasing the costs for those who remain. The customers left on the gas system will likely be those that cannot stop using gas, either because they cannot afford the up-front cost of new appliances (and potentially panel upgrades in their home), or because

they rent their homes and do not have permission from their landlord to make the necessary changes. Both these groups of people are more likely to be low-income, Black, and Brown people, worsening the existing racial and economic disparities in utility burden.

California is taking the lead on neighborhood-scale electrification efforts. On September 25, 2024, SB 1221 was signed in California,[54] a bill which will enable the California Public Utilities Commission to approve up to 30 neighborhood-scale electrification pilot projects across the state as cost-effective alternatives to the replacement of current, older gas pipelines. Communities that are currently slated to have costly upgrades to current fossil fuel pipeline replacements can now opt for free electrification upgrades, complete with new electric appliance exchanges for older, fossil-fueled equipment, free of charge. This new law allows utilities to avoid spending upwards of 3 million on new fossil fuel pipelines that are paid for by their utility customers. Before the work can begin, all the pilot projects must have community approval and establish cost-effectiveness.

In addition to SB 1221, the California Energy Commission completed a neighborhood-scale electrification pilot project and completed their final report in June 2024.[55] The report shares that targeted electrification and gas decommissioning can provide net benefits to the state, as well as both gas and electric ratepayers if there are successful policy and regulatory changes, as well as higher levels of community and customer interest and support.

Another example of neighborhood-scale electrification efforts is HB24-1370, which was passed in Colorado on May 22,2024. This bill supports local governments in developing neighborhood-scale gas-alternative energy projects, such as geothermal systems, to transition from natural gas to zero-emissions thermal resources.[56]

Building Codes for New Construction or Renovation

Building an all-electric building from the ground up is substantially easier than retrofitting an existing building. For this reason, requiring buildings to be built with all-electric systems is "low-hanging fruit"—that is, a relatively easy regulatory action that can be a first step toward full electrification In the Ninth Circuit, the *Berkeley* case limits state and local governments' options for mandatory electric codes, although there is still room to create standards that promote all-electric construction, so long as there is still a path for builders to use some fossil-fuel appliances. Additionally, EPCA allows for the DOE to remove preemption from specific codes in "unusual and compelling circumstances," although the requirements for this approach are very stringent.

Building Codes for Electrification

Building codes are sets of standards to which buildings must be constructed; energy codes are the subset of building codes that are specifically designed to address energy use. Energy codes are generally set at the state level, and states themselves typically base their codes on the standards published every three years by the International Code Council and the American Society of Heating, Refrigerating and Air-Conditioning Engineers, with amendments or additions.[57] In some states, local governments can add their own amendments to these codes, though this often requires the approval of a state agency.

Energy codes can be easier to implement than other types of regulation, for several reasons. First, energy codes primarily apply when a building is first built or is undergoing major renovations. It is substantially cheaper to construct a new building to fit a given standard than it is to retrofit an existing building to the same standard. In many cases, building an all-electric, efficient home is cheaper than building a home that uses fossil fuels.[58] Second, energy codes apply to a building while it is empty, saving the time and effort for residents of changing fuel sources. By definition, however, they do not apply to most existing buildings, and can therefore satisfy only part of a building-electrification strategy.

Energy codes that prohibit the use of gas, or any type of energy, may be unusable in the Ninth Circuit because of the *Berkeley* decision. The ordinance that the court invalidated in *Berkeley* was very similar to an energy code, which was one of the main reasons that the court decided it was preempted by EPCA.[59] Energy codes that merely encourage electrification, or that promote energy efficiency regardless of fuel type, as well as all-electric energy codes are still viable outside of the Ninth Circuit, are on surer footing. There are also two exceptions to EPCA preemption, which can allow a state or local regulation to stand regardless of *Berkeley*. These are discussed below.

Waiver under EPCA Section 6297(d)

Section 6297(d) of EPCA authorizes the DOE to allow a state or local regulation to stand, even if it would otherwise be preempted by EPCA; this is sometimes called a "preemption waiver."[60] This preemption waiver requires the state to show "unusual and compelling state or local energy…interests," which are "substantially different in nature or magnitude" from the rest of the country.[61] The regulation must also be preferable to existing federal regulation in terms of "costs, benefits, burdens, and reliability of energy…savings."[62] Finally, the regulation must not "significantly burden manufacturing, marketing, distribution, sale, or servicing" of the affected appliances.[63] This last requirement is notable, since the *Berkeley* opinion suggests that prohibitions on the use of gas in new buildings would probably fail it.[64]

It appears that no state has ever been granted a waiver under this program. In a 2006 publication, the DOE laid out some of its considerations for waivers related to space and water heaters: the state's climate; whether appliances in the state already meet the proposed standards; the possibility for voluntary programs to achieve the same effect as a mandatory standard; the level of competition in the market for those appliances; the similarities between the proposed standard and standards in other states; and whether appliances meeting the proposed standard have the same features as those that don't.[65] Massachusetts applied for a waiver for a heater standard a few years later, citing its cold climate, high prices, and climate goals; the DOE denied the application, finding that the state already had highly efficient gas use, and its high gas prices and climate goals were self-imposed.[66] The DOE could theoretically change its standards for the waiver, however, so long as they still met the EPCA requirements described above.

Exemption Under EPCA Section 6297(f)

EPCA also includes an exception from preemption for certain types of flexible energy codes, under Section 6297(f).[67] This exception is "automatic"; that is, any code that meets the seven requirements is exempt from EPCA preemption, with no application needed. These requirements are:

(1) The code must set a specific energy-efficiency goal, and allow the builder to select measures to meet that goal;

(2) The code must not require any specific appliance to meet more stringent standards than EPCA requires;

(3) If the builder does decide to use an appliance that is more efficient than EPCA requires, they must get credit against efficiency requirements elsewhere in the code on a "one-for-one…basis";

(4) If the code evaluates proposed buildings against a baseline design, that design cannot include appliances that are more efficient than EPCA requires;

(5) If the code allows builders to use different packages of efficiency measures, there must be at least one package in which no appliances are more efficient than EPCA requires, and for every package that requires an appliance to be more than 5% more efficient than EPCA requires, there must be a package that allows the appliance to be less than 5% more efficient;

(6) The energy-efficiency goal that the energy code uses must be given in terms of energy consumption or cost; and

(7) The code must test the energy use of appliances using the same procedures as are used for EPCA efficiency regulations.

Essentially, state and local governments can create a flexible energy code with a stringent standard, so long as that standard allows for at least one option that does not require appliances to be more efficient than EPCA requires.

In the Ninth Circuit, this exception allows for "electric-preferred" codes. These are codes that reward the use of electric appliances in some way—for example, by loosening other efficiency standards—but do not require electrification.[68] One model for this is Washington's latest energy code, which requires new construction to meet the same level of energy efficiency as a building with heat pumps, but allows builders to reach that level of efficiency through other means, if they prefer.[69] This new version became effective March 15, 2024. However, on May 15, 2024, a collection of home builders, gas utilities, and building trade unions sued the Washington State Building Code Council ("WSBCC"), who established these new building codes, arguing that they violate the federal Energy Policy and Conservation Act ("EPCA"). This case is still ongoing. The Public Health Law Center is tracking the case, *Rivera v. Anderson*, on their website's litigation tracker.[70]

This preemption exception also applies to all-electric codes, inside or outside of the Ninth Circuit, so long as the codes comply with the seven factors.[71] This defense was not asserted in the Berkeley case and no court has yet ruled on it in the context of regulations that prohibit the use of appliances. However, as the post-Berkeley litigation plays out, courts may have the opportunity to rule on this issue.

Building Performance Standards

Several cities around the country have begun capping the energy use or emissions of buildings within their jurisdiction. These regulations, called "building performance standards," could have a more immediate and equitable impact than other green-building policies, since they are not dependent on a building owner deciding to replace their appliances, or a developer deciding to build a new building. They are also less likely to be preempted, even under the *Berkeley* case. However, they do require more decentralized monitoring and calculation than other regulations; as a result, cities usually do not apply them to small residential buildings, whose owners are unlikely to have the capacity to comply with reporting requirements.

Building Performance Standards Generally

A building performance standard (BPS) is a regulation that caps the amount of greenhouse gases each affected building can emit, or the amount of energy each building can use; some also regulate indoor air quality. They generally apply to all buildings in a jurisdiction above a given size threshold (such as stories or square feet), which has the advantage of spreading out the benefits of building electrification and energy efficiency more equitably than regulations targeting new buildings.[72] Buildings typically receive different performance targets depending on their use type—hospitals will have different caps than apartment buildings, for example—but all the caps are designed to decline over time. Because of the need to track energy use or emissions and meet changing targets, BPSs tend to require more administrative work and planning of building owners, which is one reason why they are not typically applied to small residential buildings.

As of July 2024, 4 U.S. states (Colorado, Maryland, Oregon, and Washington) and 11 cities have implemented Building Performance Standards (BPS) to improve energy efficiency and reduce carbon emissions in buildings.[73] Montgomery County, Maryland also passed a BPS in 2022.[74]

Greenhouse Gas-Based BPSs

Some BPSs regulate the amount of greenhouse gases a building emits per square foot. Greenhouse-gas emissions are determined by measuring the amount of fuel that is used in the building, since the greenhouse-gas emissions of combusting fuels are well known. Greenhouse gas-based BPSs may also count the emissions attributable to a building's energy use against that building's greenhouse-gas cap, incentivizing building owners to not only switch to electric appliances, but also to install solar panels or buy renewable energy from an offsite generator.

BPSs of this type generally use an emissions cap that declines each year until it reaches zero. However, greenhouse gas-based BPSs frequently allow for some sort of alternative option for compliance; for example, building owners may be able to pay for renewable generation offsite instead of reducing their onsite combustion, or even simply pay a fee per unit of emissions, which is then used to reduce emissions through some other project. If there are no alternative compliance options, and the cap declines to zero, the BPS will effectively require the electrification of every building subject to it.

In the Ninth Circuit, greenhouse gas-based BPSs that completely prevent gas use are at higher risk of EPCA preemption. The main concern is that reducing a BPS's emissions cap to zero effectively prohibits the use of gas appliances in affected buildings, unless there are alternative compliance options. Because of the way in which they measure emissions, greenhouse gas-

based BPSs typically directly restrict the amount of fuel used in a building. On the other hand, they do not directly address appliances and they are clearly not building codes. Perhaps more importantly, such BPSs generally do not require zero emissions for many years, and may be protected from preemption until that point.

Energy-Based BPSs

Other BPSs regulate the amount of energy that a building uses per square foot, or "energy use intensity" rather than the building's emissions. These energy-based BPSs are also designed to decline over time, but are not usually set at a constant rate. Instead, governments usually set the energy-use caps for buildings by comparison to the efficiencies that other buildings of that type are able to achieve. For example, Washington, DC's BPS sets energy-use standard to the median use for each building type, meaning that only buildings with above-average energy use are affected.[75] Assuming that the city continues this approach, energy use will still decline over time, since the greater efficiency of high-energy buildings will result in a lower average when the new standards are calculated. Unlike greenhouse gas-based BPSs, however, energy-based BPSs cannot decline to zero—since that would require completely eliminating all energy use on the property.

Energy-based BPSs are fuel neutral: from the standpoint of the regulation, it does not matter whether the building is using energy supplied by electricity or by gas. This means that they do not guarantee building electrification—although, because both electric heat pumps and induction stoves are substantially more efficient than any available fossil-fuel appliance, they will still encourage electrification.[76] This also means that they are unlikely to be preempted by EPCA under the Ninth Circuit's *Berkeley* case.

Endnotes

[1] *See generally* Am. Lung Ass'n, *Literature Review on the Impacts of Residential Combustion* (2022), https://www.lung.org/getmedia/2786f983-d971-43ad-962b-8370c950cbd6/ICF_Impacts-of-Residential-Combustion_FINAL_071022.pdf; *see also*, e.g., U.S. Consumer Products Safety Commission, *Carbon Monoxide Fact Sheet*, (2023), https://www.cpsc.gov/safety-education/safety-guides/carbon-monoxide/carbon-monoxide-fact-sheet (about 170 people die each year from carbon monoxide, which is emitted by fossil-fuel appliances); Yannai S. Kashtan, et al., *Gas and Propane Combustion from Stoves Emits Benzene and Increases Indoor Air Pollution*, 57 Envtl. Sci. & Tech. 9653 (2023) (gas stoves can emit benzene, a carcinogen, sufficient to raise indoor concentrations above outdoor chronic exposure limits for hours at a time).

[2] Envtl. Prot. Admin., *Sources of Greenhouse Gas Emissions* (updated Nov. 16, 2023), https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions.

[3] *See generally*, e.g., Int'l Panel on Climate Change, Synthesis Report of the IPCC Sixth Assessment Report (AR6): Longer Report 14-17 & fig.2.3(c), 36-43, 62-66 (2023), https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_LongerReport.pdf.

[4] *See, e.g., id.*, at 17, 27 (disproportionate impact of climate change); Seth Shonkoff et al., *The Climate Gap: Environmental Health and Equity Implications of Climate Change and Mitigation Policies in California—A Review of the Literature*, 109 Climatic Change 485 (2011) (disproportionate impact of climate change; RMI, *Gas Appliance Pollution Inequitably Impacts Health: Who Would Gain the Most from Electrification?* 1 & nn.3-7 (2022) (collecting studies on disproportionate impact of indoor fossil-fuel combustion on health).

[5] When referring to local-government powers, this brief assumes that the local government has home-rule authority; the ability of local governments without home-rule authority to take climate action depends on the specific powers that their state has granted them, and should be considered on a case-by-case basis.

[6] Dkt. No. 21-16278 (denial of en banc petition and amended opinion filed Jan. 2, 2024).

[7] 42 U.S.C. § 6295(e)-(f), (h).

[8] *Energy Conservation Standards for Consumer Conventional Cooking Products*, Reg. Ident. No. 1904-AF57 (final rule available Jan. 29, 2024), *available at* https://www.energy.gov/sites/default/files/2024-01/cooking-products-ecs-dfr.pdf. This is the first time that gas stoves have an energy-use standard of this type; previously, EPCA prohibited the use of pilot lights (for stoves with an electrical connection), but did not set a numerical standard. 42 U.S.C. § 6295(h)(1).

[9] *See* 42 U.S.C. § 6297(b)-(c).

[10] *See, e.g.*, *Bldg. Indus. Ass'n of Wash. v. Wash. State Bldg. Code Council*, 683 F.3d 1144, 1145 (9th Cir. 2012) ("The Energy Policy and Conservation Act of 1975…establishes nationwide energy efficiency standards for certain residential home appliances, and expressly preempts state standards requiring greater efficiency than the federal standards.").

[11] *See generally* 42 U.S.C. § 6297(b)-(c).

[12] Berkeley, Cal., Mun. Code § 12.80.010 *et seq*.

[13] *Cal. Restaurant Ass'n v. City of Berkeley*, 547 F. Supp. 3d 878, 890 (N.D. Cal. 2021) (quoting 42 U.S.C. 6297(b)).

[14] *Cal. Restaurant Ass'n v. City of Berkeley*, 89 F.4th 1094 (9th Cir. 2024).

[15] *Id.* at 1102.

[16] *Id.* at 1107.

[17] *Id.* at 1101.

[18] *Id.* at 1098.

[19] *See id.* at 1103 ("the breadth of EPCA's preemption provision 'does not mean the sky is the limit.'" (quoting Dan's City Used Cars, Inc. v. Pelkey, 569 U.S. 251, 260 (2013))); *id.* at 1117 (Baker, J., concurring) ("Justice Scalia famously noted…that 'applying [words like "concerning"] according to [their] terms was a project doomed to failure, since, as many a curbstone philosopher has observed, everything is related to everything else.'" (quoting *Cal. Div. of Labor Standards Enf't v. Dillingham Constr., N.A., Inc.*, 519 U.S. 316, 335 (1997) (Scalia, J., concurring))).

[20] *Id.* at 1006; *see also id.* at 1108.

[21] *See id.* at 1005-06.

[22] *Id.*

[23] *Id.* at 1098.

[24] *Id.* at 1119.

[25] U.S. Courts for the Ninth Circuit, *What is the Ninth Circuit?*, https://www.ca9.uscourts.gov/judicial-council/what-is-the-ninth-circuit/.

[26] *See generally* e.g., UCLA School of Law, *Legal Research: An Overview: Mandatory v. Persuasive Authority* (updated Oct. 31, 2023), https://libguides.law.ucla.edu/c.php?g=686105&p=5160745.

[27] *E.g.*, 89 F.4th at 1101 (noting that the fact that EPCA addresses "building code[s] for new construction" is "[o]f critical importance" to the opinion).

[28] *E.g., id.* at 1006

[29] Most notably, the firm that represented the CRA Summaries and monitoring of each of these cases are available at the Public Health Law Center's Litigation Tracker, https://www.publichealthlawcenter.org/litigation-tracker.

[30] For an example of the limitations on the Berkeley opinion in these new contexts, see Daniel Carpenter-Gold, The Tortured Arguments Department: Corporate Landlords' Flimsy Challenge to Colorado Green-Buildings Policies (May 2, 2024), https://www.publichealthlawcenter.org/commentary/240502/5/2/24-tortured-arguments-department-corporate-landlords-flimsy-challenge (discussing weaknesses in the Restaurant Law Center v. Denver complaint).

[31] Most notably, the firm that represented the CRA also represents the plaintiffs in *Mulhern Gas Co. v. Rodriguez*, Dkt. No. 23-cv-01267 (N.D.N.Y. filed Oct. 12, 2023), and *Ass'n of Contracting Plumbers v. City of New York*, Dkt. No. 23-cv-11292 (S.D.N.Y. filed Dec. 29, 2023). The arguments in those cases are nearly identical to those in *Berkeley*.

[32] *See e.g.*, Bay Area Air Qual. Mgmt. Dist. Rule 9-6-301 (limiting nitrogen dioxide output of water heaters per joule of useful heat produced); N.Y.C. Admin. Code § 24-177.1(b) (barring fuels that produce more than 25 kilograms of carbon dioxide per MBtu).

[33] *See e.g.*, Energy Info. Admin., *Carbon Dioxide Emission Coefficients by Fuel* (2022), https://www.eia.gov/environment/emissions/co2_vol_mass.php (comparing greenhouse-gas emissions of fuels); U.S. Envt. Prot. Agency, AP *42* vol.1, c.1 (5th ed. updated 2022), https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-fifth-edition-volume-i-chapter-1-external-0 (describing criteria-pollutant emissions of fuels).

[34] Bay Area Air Qual. Mgmt. Dist. Rules 9-4-301.3, 9-6-301.5, *available at* https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-9-rule-4-nitrogen-oxides-from-fan-type-residential-central-furnaces/2021-amendments/documents/20230315_rg0904-pdf.pdf, https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-9-rule-4-nitrogen-oxides-from-fan-type-residential-central-furnaces/2021-amendments/documents/20230315_rg0906-pdf.pdf (Bay Area enacted rules); S. Coast Air Qual. Mgmt. Dist., *2022 Air Quality Management Plan* c.4, 4-14 to 4-16 (2022), http://www.aqmd.gov/docs/default-source/clean-air-plans/%20air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/07-ch4.pdf (South Coast proposed rules); *see also* CARB, *Proposed 2022 State SIP Strategy* 101-03 (2022), https://ww2.arb.ca.gov/sites/default/files/2022-08/2022_State_SIP_Strategy.pdf (statewide proposed rules).

[35] *Berkeley*, 89 F.4th at 1107 ("EPCA would no doubt preempt an ordinance that directly prohibits the use of covered natural gas appliances *in new buildings*." (emphasis added)).

[36] *See generally* 42 U.S.C. §§ 7407(a), 7410.

[37] *See e.g., Safe Air for Everyone v. EPA*, 488 F.3d 1088, 1091 (9th Cir. 2007); *Sierra Club v. EPA*, 496 F.3d 1182, 1186 (11th Cir. 2007); *Union Elec. Co. v. EPA*, 515 F.2d 206, 211 (8th Cir. 1975).

[38] *See Ass'n of Am. Rrs. v. S. Coast Air Qual. Mgmt. Dist.*, 622 F.3d 1094, 1098 (9th Cir. 2010) ("[T]o the extent that state and local agencies promulgate EPA-approved statewide plans under federal environmental laws..., [federal railway law] generally does not preempt those regulations because it is possible to harmonize [federal railway law] with those federally recognized regulations.").

[39] *Air Plan Conditional Approval; California; Bay Area Air Quality Management District*, 89 Fed. Reg. 94,633 (Nov. 29, 2024), https://www.govinfo.gov/content/pkg/FR-2024-11-29/pdf/2024-27518.pdf.

[40] South Coast Air Quality Management District, South Coast AQMD Approves Rule to Accelerate the Transition to Zero-Emission for Water Heaters (2024), https://www.aqmd.gov/home/research/pubs-docs-reports/newsletters/aug-sep-2024/water-heater

[41] *See* Cal. Air Res. Bd., Zero-Emission Space and Water Heater Standards (2024), https://ww2.arb.ca.gov/our-work/programs/building-decarbonization/zero-emission-space-and-water-heater-standards/meetings-workshops.

[42] *See* Md. Off. of Gov., Governor Moore Signs Executive Order to Advance Maryland's Pollution Reduction Plan (June 4, 2024), https://governor.maryland.gov/news/press/pages/governor-moore-signs-executive-order-to-advance-maryland%E2%80%99s-pollution-reduction-plan.aspx.

[43] *See* N.Y.C. Admin. Code § 24-177.1(b) (prohibiting the combustion of fuels that produce more than 25 kilograms of carbon dioxide per MBtu); Proposed Ord. No. O2024-0007175, § C609.2 (equivalent standard with additional exceptions), *available at* https://chicityclerkelms.chicago.gov/Matter/?matterId=ADFABB50-29BA-EE11-A568-001DD8069864. Traditional fossil fuels all emit more than 25 kilograms per MBtu. See, e.g., Energy Info. Admin., *Carbon Dioxide Emission Coefficients by Fuel* (2022), https://www.eia.gov/environment/emissions/co2_vol_mass.php.

[44] For example, New York recently passed a bill to prohibit the burning of the heaviest type of fuel oil, grade number 6, statewide. N.Y. S. Bill 2021-S2936A (codified at Envtl. Cons. Law § 19-0329), *available at* https://www.nysenate.gov/legislation/bills/2021/S2936.

[45] *See e.g.*, Energy Info. Admin., *Natural Gas Explained: Natural Gas Pipelines* (updated Nov. 18, 2022), https://www.eia.gov/energyexplained/natural-gas/natural-gas-pipelines.php.

[46] 15 U.S.C. § 717(b).

[47] 89 F.4th at 1106.

[48] *See e.g.*, Auburn City Council Ord. No. 6606, § 1 & Ex. A, *available at* https://mrsc.org/getmedia/ec917ea5-7191-40cf-8af4-3b70a75f75cd/a9o6606.pdf.

[49] *See* Nicholas Wallace et al., Stanford Law Sch. Envtl. Law Clinic & Stanford Woods Inst. for the Envt., *Removing Legal Barriers to Building Electrification* 10, 24-25 (2020), https://law.stanford.edu/wp-content/uploads/2015/03/2020-10-20_Natural-Gas-Memo_formatted.pdf (discussing how the California PUC might be able to restrict the service areas of the utilities it regulates).

[50] *See e.g.*, Cal. PUC, *CPUC Eliminates Last Remaining Utility Subsidies for New Construction of Buildings Using Natural Gas* (Dec. 14, 2023), https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-eliminates-last-remaining-utility-subsidies-for-new-construction-of-buildings-using-gas-2023.

[51] *See e.g.*., Sierra Club, Comments, Mass. Dept. Pub. Utils. Dkt. No. 22-107 (filed Nov. 2, 2022), https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/15704471.

[52] *See e.g.*, Citizens' Util. Bd., Proposal, Minn. Pub. Utils. Dkt. No. CI23-117, at 27-29 (Oct. 24, 2023), *available at* https://cubminnesota.org/cub-is-leading-effort-to-develop-long-term-system-planning-for-minnesotas-gas-utilities/ (describing distribution scrutiny in planning processes in Oregon, New York, and Washington).

[53] City of Ann Arbor, Ann Arbor's Sustainable Energy Utility (SEU) (visited Jan. 29, 2025), https://www.a2gov.org/departments/sustainability/Sustainability-Me/Pages/Ann-Arbor's-Sustainable-Energy-Utility-(SEU).aspx.

[54] Gas corporations: ceasing service: priority neighborhood decarbonization zones, California Senate Bill 1221 (Cal. Stat. 2023-2024), Chapter 602 (Cal. Stat. 2024). https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202320240SB1221.

[55] Aryeh Gold-Parker et al., *Benefit-Cost Analysis of Targeted Electrification and Gas Decommissioning in California's East Bay* (2024). https://www.energy.ca.gov/publications/2024/analytical-framework-targeted-electrification-and-strategic-gas-decommissioning.

[56] Reduce Cost of Use of Natural Gas. Colorado General Assembly House Bill 24-1370. https://www.leg.colorado.gov/bills/hb24-1370.

[57] For more on the specifics of this process, see DOE, *How are Building Energy Codes Developed?* (Aug. 8, 2016), https://www.energy.gov/eere/buildings/articles/how-are-building-energy-codes-developed.

[58] *See e.g.*, Claire McKenna et al., RMI, *The New Economics of Electrifying Buildings* (2020), https://rmi.org/insight/the-new-economics-of-electrifying-buildings.

[59] *See Berkeley*, 89 F.4th at 1101 (noting that EPCA's exception for regulations in certain "building code[s] for new construction" was "[o]f critical importance" in understanding whether the ordinance was subject to EPCA preemption).

[60] 42 U.S.C. § 6297(d). It appears that only states (and territories) can submit waivers, although states may be able to submit waivers on behalf of a local government. Id. § 6297(d)(1)(A). This is because EPCA's definition of "State" includes only states and territories, while its definition of "State regulation" includes regulations by "a State or its political subdivisions." *Id.* §§ 6202(4), 6297(a)(2).

[61] *Id.* § 6297(d)(1)(A), (C)(i).

[62] *Id.* § 6297(d)(1)(C)(ii).

[63] *Id.* § 6297(d)(3).

[64] *Berkeley*, 89 F.4th at 1103-04. The Ninth Circuit points this out in the context of assuming that the ban would be "adopted by States and localities throughout the country," and it is also somewhat irrelevant to the point it is making, so it is not clear whether it would actually prevent the DOE from granting a waiver request. *Id.* at 1104.

[65] *Energy Conservation Standards for Residential Furnaces and Boilers*, 71 Fed. Reg. 59,204, 59,209-10 (Oct. 6, 2006).

[66] *Notice of Denial of a Petition for Waiver from Federal Preemption*, 75 Fed. Reg. 62,115, 62,117-19 (Oct. 6, 2010). The only other state to have requested a waiver was California, for a more stringent water-efficiency standard for laundry machines. *See California Energy Commission Petition for Exemption from Federal Preemption of California's Water Conservation Standards for Residential Clothes Washers*, 71 Fed. Reg. 78,157 (Dec. 28, 2006).

[67] 42 U.S.C. § 6297(f).

[68] *See Bldg. Ind. Ass'n of Wash. v. Wash. State Bldg. Code Council*, 683 F.3d 1144, 1151-53 (9th Cir. 2012) (holding that a code can create an incentive to use appliances that are more efficient than EPCA requires, as long as it is not a requirement).

[69] *See* Build Elec. Wash., *WA State Building Code Council Votes to Protect Energy Codes and Ensure They are among the Most Climate & Health Friendly in the Nation* (Nov. 28, 2023), https://www.buildelectricwa.org/updates/code-updates-pass-11-2023 (summarizing impact of changes); Wash. State Bldg. Code Council, *Adopted Changes to the Energy Code for EPCA Concerns* (Dec. 5, 2023), https://www.sbcc.wa.gov/news/adopted-changes-energy-code-epca-concerns (providing links to specific changes).

[70] For updates on this case, see PHLC's tracking page, https://www.publichealthlawcenter.org/litigation-tracker/rivera-v-anderson-2024.

[71] PHLC has itself made this argument in an amicus brief in the National Association of Home Builders v. Montgomery County case. Case No. 24-cv-30324, Dkt. No. 26-2 (D. Md. filed Jan. 15, 2025), available at https://www.publichealthlawcenter.org/sites/default/files/case/PHLC-amicus-NAHB-Montgomery-County.pdf.

[72] For a more comprehensive survey of BPSs across the country, see Inst. for Market Transformation, *Building Performance Standards*, https://www.imt.org/public-policy/building-performance-standards/.

[73] Office of Renewable Energy and Efficiency. Building Performance Standards. (updated July 17, 2024), https://www.energycodes.gov/BPS.

[74] *Id.*

[75] *See* Washington, DC Dept. of Energy & Envt., *Guide to the 2021 Building Energy Performance Standards 8* (Jan. 5, 2021), https://doee.dc.gov/sites/default/files/dc/sites/ddoe/publication/attachments/1_Guide%20to%20the%202021%20BEPS%281%29.pdf.

[76] *See e.g.*, DOE, *Heat Pump Systems*, https://www.energy.gov/energysaver/heat-pump-systems.