

Getting the Most Out of State Standards

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Abstract

To meet decarbonization goals, states are pursuing new tools and programs to reach the largest, most cost-effective savings for their residents. Appliance efficiency standards are one such strategy to help states drastically reduce energy and water consumption. Since 2018, 12 states and Washington D.C. have adopted a variety of appliance standards, with other states actively pursuing state standard adoption. These standards help consumers save energy, water, and money on their utility bills, while also helping reduce greenhouse gas (GHG) emissions and increase grid resilience and energy independence.

Passing appliance standard legislation is the first critical step in a long process to achieve these beneficial impacts. States must then work to ensure that market actors comply with the standards to effectively transform the market. Without providing the proper knowledge or tools to comply with state standards, the GHG and monetary savings promised by these standards may not materialize. Additionally, lack of coordination between new standards and existing energy efficiency programs can further reduce the benefits of these adopted standards. This paper will review an array of tools and programs available to both states and utilities to help promote new standards and improve compliance rates to maximize benefits. This paper also explores best practices and state program examples, including how to effectively engage with market actors to ensure high compliance so that these standards minimize market disruption while maximizing consumer benefit. This paper will provide guidance on how states of all sizes and budgets are able to deploy this highly impactful GHG mitigation strategy.

Background on State Appliance Standards

State appliance standards set new minimum efficiency levels for certain products sold within a state. When a standard is in effect, every purchase of a given product must meet a minimum threshold, which can have a widespread and equitably dispersed impact throughout a state for consumers of that product. Typically, state standards require the adoption of new legislation, which can often take multiple legislative sessions before the standards bill passes. Maryland and New York have recently had success passing standards legislation, while other states have had momentum but have not seen success yet, such as Pennsylvania. As shown in Figure 1, 12 states and the District of Columbia have adopted a variety of state-level appliance efficiency standards since 2018. These standards range from household products to commercial kitchen equipment to lighting, as described further in Table 1.

Across these states, similar—if not identical—requirements have been adopted for the same product categories. This has been a coordinated effort with support from both regional and national organizations. The Appliance Standards Awareness Project (ASAP) releases a model appliance standard bill annually that contain recommended products and standard requirements that their analysis (ASAP 2017, 2022) has found to be most ripe for state action.¹ When

¹ Model bill and associated savings report available from the Appliance Standards Awareness Project: appliance-standards.org/document/report-overview-states-go-first

developing new legislation, states have used the model bill as the starting point and modified their respective legislative texts based on their goals or priorities. For example, Washington and Oregon added grid-interactivity requirements to electric water heaters when they passed their 2019 and 2021 standards legislation, respectively.² Several states have adopted more aggressive water efficiency standards than the levels recommended in the ASAP model bill.³ Recently adopted state appliance standards are strikingly similar across the board, demonstrating regional and national momentum towards uniform state appliance standards.

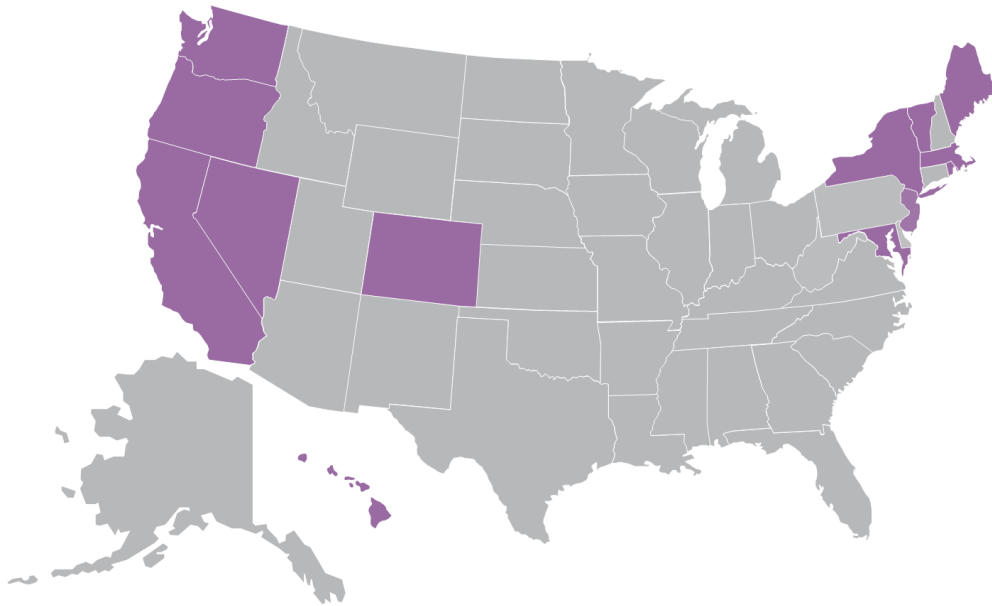


Figure 1: States in purple have adopted appliance standards since 2018.

Appliance standards have become practical, cost-effective policies that help consumers save energy, water, and money on their utility bills, while also helping states reduce their GHG emissions. The standards in ASAP’s model bill have been vetted to ensure that there were a variety of compliant products already available so that these standards minimize market disruption while maximizing consumer benefit (ASAP 2017, 2021). Many states have adopted standards that align with the California Energy Commission’s (CEC) Appliance Efficiency Regulations, also known as Title 20 (CEC 2021).⁴ However, since 2017, the ASAP model bill has contained several state standards that have not been adopted in California, many of which are based on older versions of ENERGY STAR specifications. Table 1 shows the 18 products for which new state standards have been adopted since 2018.⁵ In most cases, the product requirements and standard levels are identical across all states with that standard, though there

² Included in Washington State 2019 House Bill 1444, www.commerce.wa.gov/growing-the-economy/energy/appliances/ and Oregon in HB2062 www.oregon.gov/energy/energy-oregon/Pages/Appliance-Standards.aspx

³ The ASAP Model Bill recommends Water Sense standard levels across plumbing products, but several states including Hawaii, Maine, Oregon, and Washington have adopted more stringent water fixture standards, matching those established in California.

⁴ Details on California Energy Commission Title 20 www.energy.ca.gov/rules-and-regulations/appliance-efficiency-regulations-title-20

⁵ In addition to standards for new products, some states have included a small number of federally covered products in their legislation to effectively codify the federal law in state statute to ensure the standards are effective in spite of U.S. DOE activity, discussed further in the next section (these are not included in Table 1).

are a few product categories where there is a slight variation between the standards levels adopted. In Table 1, most states and products are either blank (indicating no standard in place for that product in that state) or have an X in blue, demarking consistency with other states and the ASAP model bill. A few states have ‘X+’ products in green, indicating a more stringent version of the standard. In other states, there is an ‘X-’ in orange indicating a less stringent version of the standard. California has been setting state standards regulations on several pertinent product since before 2018, so the California standard status across the same categories has been included as a reference. The New York products have an asterisk as their legislation authorizes the New York State Energy Research and Development Authority (NYSERDA) to set appliance standards through regulations; as such, the final list of products had not been proposed at the time of this report development, though all standards indicated were named in the legislation.

Table 1. State product standards that have been adopted since 2018 (CA for reference)

Product/State	CA	CO	DC	HI	ME	MD	MA	NV	NY	NJ	OR	RI	VT	WA
Adoption Year	Many	‘19	‘20	‘19	‘21	‘22	‘21	‘21	‘22	‘21	‘21	‘21	‘18	‘19 / ‘22
Air Purifier			X			X		X	X*	X				X+
Commercial Dishwasher		X	X			X	X	X	X*	X	X	X	X	X
Commercial Fryer		X	X				X	X	X*	X	X	X	X	X
Commercial Oven							X	X	X*	X	X	X		X
Commercial Steam Cooker		X	X			X	X	X	X*	X	X	X	X	X
Computer and monitor	2016	X	X	X	X		X	X	X*	X	X		X	X
Electric Vehicle Supply Equipment							X	X-	X*	X		X		X
Faucet	2015+	X	X	X+	X+	X	X	X	X*	X	X+	X	X	X+
Gas fireplace								X	X*			X		
Federally-exempt Linear Fluorescent Lamp		X	X+	X			X	X+	X+*	X+	X		X	X
Hot Food Holding Cabinet	2004	X	X		X+	X	X+	X+	X*	X+	X	X+	X	X+
Portable Electric Spa	2019	X	X+		X+	X+	X+	X+	X*	X+	X+	X+	X	X
Residential Ventilating Fan		X	X			X	X+	X	X*	X	X	X	X	X+
Showerhead	2015+	X	X	X+	X+	X	X	X	X*	X	X+	X	X	X+
Spray Sprinkler Body	2019	X	X	X	X	X	X		X*	X		X	X	X
Toilet	2015	X	X		X	X	X	X	X*	X		X		X
Urinal	2015+	X	X		X	X	X	X	X*	X		X	X	X+
Water Cooler	2004-	X	X		X	X	X	X	X*	X	X	X	X	X

State and Federal Standard Interaction

State and federal appliance standards interact in multiple ways. Historically, state appliance standards have been the precursor to federal standards. Before the federal government adopted the first appliance standards in 1987, California had already been setting standards for a decade.⁶ California has paved the way for future federal appliance standards, setting the first efficiency requirements for several major product categories including refrigerators. This pattern of a state first adopting an appliance standard which is subsequently adopted by the U.S. Department of Energy (DOE) continues to this day. Many manufacturers strongly support federal appliance standards since complying with a single federal standard is more cohesive than having to meet various state standards. However, once the U.S. DOE adopts a standard for a product, states are generally **preempted** from having their own standards, either more or less efficient (ASAP 2017).⁷

The U.S. DOE has continued the tradition of using existing state standards to set new federal appliance standards. Recently, in late 2021 and early 2022, the U.S. DOE started regulatory proceedings for three new product categories that currently have state standards, including air cleaners, gas fireplaces (i.e., miscellaneous gas products), and portable electric spas.⁸

Additionally, several states have proactively passed legislation for products that were going to be regulated by the U.S. DOE, but the timing was uncertain or delayed. This includes general service lamps, air compressors, uninterruptible power supplies, and portable air conditioners. States that adopted these standards have signaled to the market that the standards are moving forward and have helped provide pressure to keep the U.S. DOE on track to finalize those rulemakings.

State Standards Overlap with Efficiency Programs

Utility energy efficiency programs have been a long-standing policy approach to reduce energy consumption. When utilities are calculating the impact of their programs, high-efficiency products are compared to a baseline, which is typically based off the federal or state minimum efficiency allowable for sale of a given product. When a new appliance standard becomes effective, the entire market benefits from no longer having inefficient products available for sale. However, the utility programs that were promoting high efficiency products are no longer able to claim as much savings due to the higher baseline. Since the U.S. DOE federal standards rulemaking process takes several years to finalize and once final, takes several more years to take effect, efficiency programs and evaluators have plenty of time to adjust to raising baselines due to federal standards. State appliance standards, on the other hand, typically have a shorter period between adoption and effective date (often one to two years) and generally less market awareness over the passage of state appliance standards legislation. As such, state standards can be disruptive for utility programs providing incentives for the same product category.

⁶ According to the California Energy Commission www.energy.ca.gov/programs-and-topics/programs/appliance-efficiency-program-outreach-and-education

⁷ There are some exceptions to federal preemption, including for plumbing products, and for certain states.

⁸ US DOE has published Notices of Proposed Determination for:
Air Cleaners in September 2021, www.regulations.gov/document/EERE-2021-BT-DET-0022-0001;
Miscellaneous Gas Products in February 2022 www.regulations.gov/document/EERE-2021-BT-DET-0034-0001;
Portable Electric Spas in February 2022: www.regulations.gov/document/EERE-2022-BT-DET-0006-0002

Fortunately, there are effective ways to manage this potential challenge, discussed further in the Efficiency Program Support section.

In some cases, states develop programs to address this lack of market awareness. For example, the California Public Utilities Commission allows the California Investor-Owned Utilities (IOUs) to both support advocacy for the adoption of and improve the compliance with state and federal appliance standards. The term *advocacy* is used in California as the umbrella term to cover a wide range of activities that support the success of standards. The California IOUs provide incentives for high-efficiency technologies while also working to support the regulatory process to establish standards for many products; they are able to claim energy savings credit without having to pay per-product incentives on every product that is impacted by their work. The theory of change—that a utility would be transforming the market of efficient products—is the same whether it is achieved through incentives, effective marketing campaigns, or standards. For the California IOUs, supporting appliance standards through their Codes and Standards (C&S) Advocacy Program and the Compliance Improvement Subprogram has been a very successful mechanism to generate savings. A 2016 ACEEE paper detailed several ways in which the IOUs actively support the appliance standards compliance process in California and beyond (Richter 2016).

Utility Attribution for State Standards Support

In the context of appliance standards programs, **attribution** refers to the portion of energy savings that can be credited to a utility for their efforts in support of codes and standards. The roles a utility could play in state standards are likely to vary based on the state needs and status of standards. A state where standards legislation has already passed, for example, will not benefit from legislative support from utilities, though might greatly benefit from utility support in promulgation, outreach, and compliance. Developing an attribution structure whereby utilities are motivated to provide appropriate support and are credited for the part they play in state standards provides significant leverage to the success of standards.

While compliance with a standard is necessary in every state, the technical analysis needed to support new standards *regulations*, such as the case in California, may have a different flavor than the needs in a state looking to adopt new *legislation* to enact standards. All legislation faces challenges, but appliance standards bills are almost always long and complex; utilities being able to provide technical analysis or advocate for their passage could have a significant impact on the success of standards legislation. In their 2019-2021 plan, the Mass Save utilities planned to receive credit for their part in getting appliance standards legislation passed. They anticipated claiming savings from their support of “the adoption of product efficiency standards during the Commonwealth’s then-forthcoming legislative session” (Massachusetts 2022).

Once a bill is passed, a utility may shift their advocacy to support standard promulgation or compliance as discussed further in this paper. Utility programs may already be working with the market actors impacted by a standard and can potentially help mobilize their existing networks to increase awareness of the standard from the industry. Utilities could also play a role in getting products certified to a database, as discussed in the Product Certification section, thus relieving administrative pressure from state staff. Additionally, utilities can be great compliance partners, potentially monitoring for noncompliant products as well as proactively work with the market to improve compliance with standards.

The California C&S Advocacy Program is the most mature example of utility support of state standards, but other states are exploring how to establish an attribution structure for codes

and standards support. The standards advocacy that the California IOUs pursue is holistic, from measure development, testing, product availability, innovation, and compliance. Their attribution structure for establishing new standards has been described as (Opinion Dynamics 2021):

“The [California IOU] C&S Advocacy Program’s purpose is to advocate for the development and adoption of stricter codes and standards... Were IOUs proactive in pressing stricter standards or were they only providing technical support in the process? If they lobbied, did they lobby proactively for their position and how broad was their effort? Did regulators listen to them and adopt their recommendations? To answer these questions, the evaluation protocols set forth specific factors. The method focuses on three areas:

- Development of compliance determination methods and other special analytic techniques
- Development of code language and technical, scientific, and economic information in support of the standard
- Demonstrating the feasibility or market acceptance of standard adoption”

The California IOUs are evaluated to ensure that they are given appropriate credit for playing an instrumental role in both the adoption of appliance standards and compliance with existing standards.

The impact of appliance standards efforts—which affect all products sold in a state but without a per-unit incentive—can occur at a much lower cost to the utilities than incentive programs. A 2021 California C&S Program evaluation reported that the C&S Advocacy Program accounted for 57%-60% of the annual savings across the full energy efficiency program portfolio for the years evaluated, 2016-2018 (Opinion Dynamic, 2021). Additionally, the same evaluation found that the magnitude of savings was significant, with evaluated savings in 2018 amounting to nearly 800 GWh for federal standards support and more than 800 GWh for California standards support. This significant amount of savings comes from a relatively minuscule budgetary spend, less than 10% of the full program costs (MEEA 2021).

Outside of California, the regulatory structures for utility attribution for standards work are mixed. While states in the Northwest Energy Efficiency Alliance’s footprint of Oregon, Washington, Idaho, and Montana have a framework to credit codes and standards,⁹ most other states’ public utility commissions are not structured to fully support this type of activity. Several states are looking toward codes and standards as new ways to evolve energy efficiency programs since the benefit from utility support for state standards is significant (MEEA 2021). A project supported by the Minnesota Commerce Department, for example, developed a Roadmap to a Codes and Standards Program which included detailed descriptions of the theory of change, steps to measure impact, and support to establish an evaluation framework that ensures appropriate attribution is granted to utility codes and standards efforts (Minnesota 2021).

Ultimately, utilities and efficiency program administrators are well positioned to help increase the success of state appliance standards. To the extent possible, regulatory and evaluation frameworks should be evolving to bring utilities into the standard adoption and advocacy process, allowing them to claim appropriate attribution for these efforts and helping to ensure that the benefits of state appliance standards are fully realized.

⁹ <https://neea.org/our-work/codes-standards>

Standards Mechanics after Legislation Passes

While passing legislation can take a tremendous amount of effort and has been a major focus for many states over the past several years, the passage of an appliance standards bill is not the last step in ensuring state standards are successful. High compliance rates are essential in order for state appliance standards to have their intended impact. Since the products regulated by state standards are diverse and generally not federally regulated, manufacturers, distributors, retailers, and installers (who are all required to comply) may not realize that these standards exist. There are many ways to achieve high compliance rates, starting before the standards are signed into law until after they have taken effect. Several examples and proposed best practices are explored in the following section, as well as highlighting areas where utilities or other organizations may be able to provide support to state regulators.

Standards Promulgation

Every state has its own process to codify state standards. Beyond the passage of any enabling legislation, many states have a rulemaking or regulatory process to formally establish the standards. The requirements and length of time to do this regulatory promulgation varies by state and legislation. In several states, such as New Jersey, Oregon, and Nevada,¹⁰ legislation establishing state standards included specifics on both the efficiency requirements and the test procedures involved. Other states, such as Maine and New York¹¹ only establish the definitions of the regulated products, not the specifics about what requirements the standard would set. Taking Maine as an example, Figure 2 shows an approximate timeline from legislation passage to effective date over the course of 18 months.¹² While the state standards products and efficiency levels are, by design, relatively uniform between states, the regulatory promulgation is an important step for many states to ensure that the broader impacted industry has an opportunity to weigh in and understand the standards before they take effect.

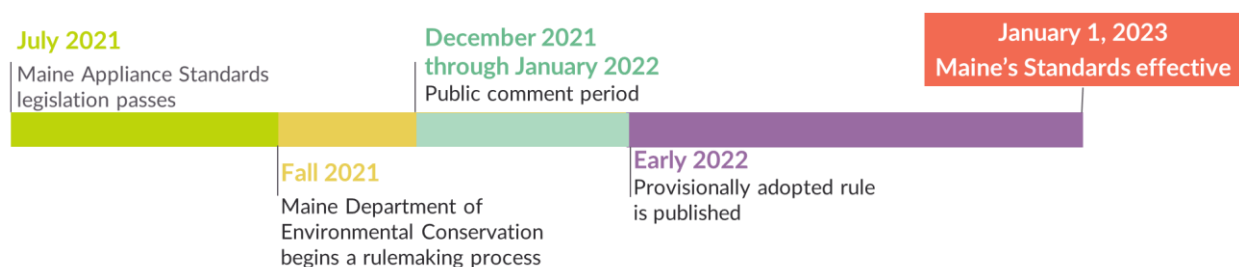


Figure 2: Approximate timeline for Maine's appliance standards promulgation process.

Beyond a state meeting their regulatory obligations, there are a series of steps between the passage of state standards legislation and the effective date of state standards regulation that can enable high compliance through market awareness. One of the most straightforward but overlooked first steps is for the staff of the implementing state agency involved in standards adoption to meet internally to discuss roles, expectations, and strategies to ensure high compliance. While some state legislation moves quickly from introduction to adoption (such as

¹⁰ New Jersey passed A5160 in late 2021, Oregon passed HB 2062 in 2021, Nevada passed AB 383 in 2021

¹¹ Maine passed LD 940 in 2021, New York passed A10439 in 2022

¹² Detailed on the regulatory process in Maine at www.maine.gov/dep/rules/index.html#6382133

Vermont in 2018 who passed the new state standards bill H140 within the first session of introduction), it can take many states years before the bills are passed, such as Rhode Island which had introduced an appliance standards bill almost every year since 2013 but did not pass legislation until 2021.¹³ Appliance standards bills can evolve over time, with some products being added or removed; state agencies can change as well, with new programs and staff changes. It is important that once the bill is passed and the standards are moving towards promulgation, everyone who will be involved moving forward is on the same page with what these standards are and who will be responsible for elements of implementing state standards. The elements to be discussed, detailed further, will help drive high compliance:

- Industry outreach and engagement
- Educational resource development
- Product certification
- Standards enforcement

Establishing who will be the main point of contact, what process will be used for certification, and what the expectations are regarding standards enforcement is critical to ensure that when questions come up or clarifications are needed, there is a plan in place to quickly address them.

Outreach and Resources

External communications for new appliance standards can be challenging. Finding the right market actors to connect with, developing effective messaging, and having the structure in place to field inquiries can be a significant undertaking, especially for states new to this effort. A track record of bi-partisan support exists for standards that provide regulatory certainty; even if an industry did not lobby for a new standard, the more time they have to plan and prepare for it, the better. Market outreach can begin as soon as legislation has been passed, even if a state's regulations are not yet finalized, to get the market acquainted with the impending standards. This outreach can help build new or strengthen existing industry relationships that will be important for product compliance. This could be a role for utility programs who may already have market insights on how to communicate standards information.

Establishing a centralized repository for state appliance standard communications will help ease the process for new stakeholders. Providing clear and consistent messaging around the regulated products, effective dates, certification processes, and enforcement are critical. A state should publish a regulatory advisory or other online resource with details such as standard levels and effective date, as well as establish a dedicated email address for any inquiries about state standards and an online form where state standards violations can be reported. If a state does not have the ability to launch a large enforcement effort, being able to passively collect violation reports will be low impact effort and can provide insights into compliance rates. This could be another opportunity for utility programs to provide staffing support, potentially including marketing and managing questions or communications that come in about the standard.

In addition to having a webpage and conducting market outreach, states may want to develop or highlight specific resources that include information about the standards in a more digestible format. This may include logistical information such as details on certification or higher-level information such as the energy and GHG reduction benefits that will be achieved

¹³ In 2021, both H5966 and S0399 were passed into law appliance-standards.org/document/rhode-island-legislature-adopts-energy-efficiency-bill-cut-costs-consumers-and-businesses

through these standards. Key messengers for this information should include state staff, as well as utilities, energy efficiency advocates at the local, state, or national level, and regional energy efficiency organizations that may be able to organize and align appliance standards efforts across states. To make cross-state communication easier, Northeast Energy Efficiency Partnerships (NEEP) convenes a regular Appliance Standards Working Group,¹⁴ where states can share resources and information about their standards with other relevant states (NEEP 2017).

Product Certification

To ensure a product meets a given state standard, there needs to be a mechanism to certify compliance. The CEC's Modernized Appliance Efficiency Database System (MAEDbS 2022) is a robust database used to verify compliance with California's regulations.¹⁵ States with standards that align with existing California standards could use the products already listed in the MAEDbS to verify compliance. If a manufacturer has already certified their product to the MAEDbS for sale in California, they may not have to take additional actions to be able to meet compliance in other states with the same standard. However, if a manufacturer had not previously been selling in the California market, they may need to create an account and get their products listed to the MAEDbS in order to be compliant with other state standards.

As discussed previously, not all recent state standards align with existing standards in California. In 2021, NEEP—in partnership with several states, with development assistance from the United States Climate Alliance (USCA) and NYSERDA, and with technical assistance from ASAP—commissioned Energy Solutions to build the State Appliance Standard Database (SASD 2022). This database helps manufacturers comply with state appliance efficiency standards outside of existing California regulations.¹⁶ Manufacturers or third-party certifiers self-certify compliant products to the SASD, so if the model number is found in the database, it is allowed to be sold in the states where it meets their standards. As retailers, distributors, or installers create inventory, they can reference the SASD to verify that the products they intend to sell are compliant.

The Home Ventilating Institute also maintains a directory of products, currently being used to indicate which residential ventilating fans are compliant with Vermont's standards.¹⁷ Across the board, as new states pass new standards, these certification efforts are anticipated to continue to evolve to meet states' compliance needs moving forward.

Compliance Efforts to Ensure the Success of State Standards

Once standards are established, a regulatory advisory has been released, and the certification expectations have been determined, compliance is the next priority. Many tools can be used to ensure high compliance, including but not limited to proactive outreach, ongoing technical support, and enforcement against market actors for selling noncompliant products. The impact of a standard is directly tied to how well it is complied with, and states, utilities, and others can contribute to a range of critical actions to help improve state standards compliance.

¹⁴ More information on NEEP's appliance standards efforts at neep.org/smart-efficient-low-carbon-building-energy-solutions/appliance-efficiency-standards

¹⁵ MAEDbS cacertappliances.energy.ca.gov/Pages/ApplianceSearch.aspx

¹⁶ Background on the SASD can be found at www.neep.com/SASD. The site can be accessed directly at www.appliancestandards.org

¹⁷ www.hvi.org/hvi-certified-products-directory/

Current State Appliance Standard Compliance Efforts

Awareness is one of the largest obstacles in ensuring high compliance with state appliance standards. Without proactive industry outreach and engagement, market actors will lack the knowledge needed to comply with standard regulations. States need to engage market actors early and often about the resources available to them and opportunities to participate and provide feedback. Ensuring that impacted stakeholders are contacted and alerted of the regulatory changes is the first step in creating awareness.

When promulgating their state standards, the Massachusetts Department of Energy Resources (DOER) held a public meeting and a public comment period to solicit feedback on the proposed standard details and the proposed enforcement process before their standards were effective.¹⁸ DOER's public process allowed for visibility into the upcoming standards and provided greater transparency in the standard development process. In order to interface more directly with the impacted market, the Washington State Department of Commerce developed an Appliance Standards and Design Requirements Guidebook¹⁹ which summarizes the critical information market actors need to know about how to comply with standards. The Department of Commerce then took the critical additional step to distribute their resource to key market actors within each industry to alert them of the standards.

Awareness alone may be insufficient to ensure the market is ready to comply with a state standard; some market actors may need help deciphering the standard requirements and understanding their responsibilities. In 2008, the California IOUs developed the Energy Code Ace program which provides no-cost tools, training, and resources to industry professionals to help them comply with Title 20.²⁰ Energy Code Ace provides several mechanisms to help market actors fully understand the requirements, including ongoing technical support. These offerings and continuous industry outreach have achieved high compliance rates throughout California. Additionally, the CEC has a Title 20 Call Center where they also answer stakeholder questions regarding the performance, testing, marking and labeling, and certification requirements.

Compliance and Efficiency Program Coordination

As mentioned above and explored at length in a 2021 Association of Energy Services Professionals (AESP) magazine article *With Effective Compliance, Appliance Standards Can Lower Emissions and Save Energy*,²¹ appliance standards can conflict with utility energy efficiency programs when the covered product categories overlap (Le Corre 2021). Thus, coordination between energy efficiency programs and standards compliance programs is an important way to ensure an appliance standard has the intended impact rather than causing a market disruption. The article highlights dealer surveys that were conducted by Energy Solutions to support food service efficiency programs in Washington state and Massachusetts. These surveys found, unfortunately, that many dealers were not aware of impending state standards for their products and flagged that the dealers did not expect to be penalized for noncompliance. The survey results highlight the potential gap between an efficiency program ending and an appliance standard taking effect, where there may be a need for energy efficiency programs that proactively engage these markets may be able to transition to support standard compliance. The

¹⁸ Details: www.mass.gov/service-details/appliance-energy-efficiency-standards

¹⁹ deptofcommerce.app.box.com/s/0fsb3hmrd81qmrm76exmg4150lz5p8hs/file/833398740936

²⁰ energycodeace.com/

²¹ AESP Energy Intel, Q4 2021: pubhtml5.com/sicr/swnn

AESP article discusses preparing the market to transition to high rates of compliance through a compliance improvement program as part of a demand-side management portfolio. Figure 3 shows why this type of program can be critical to ensuring the success of state appliance standards.

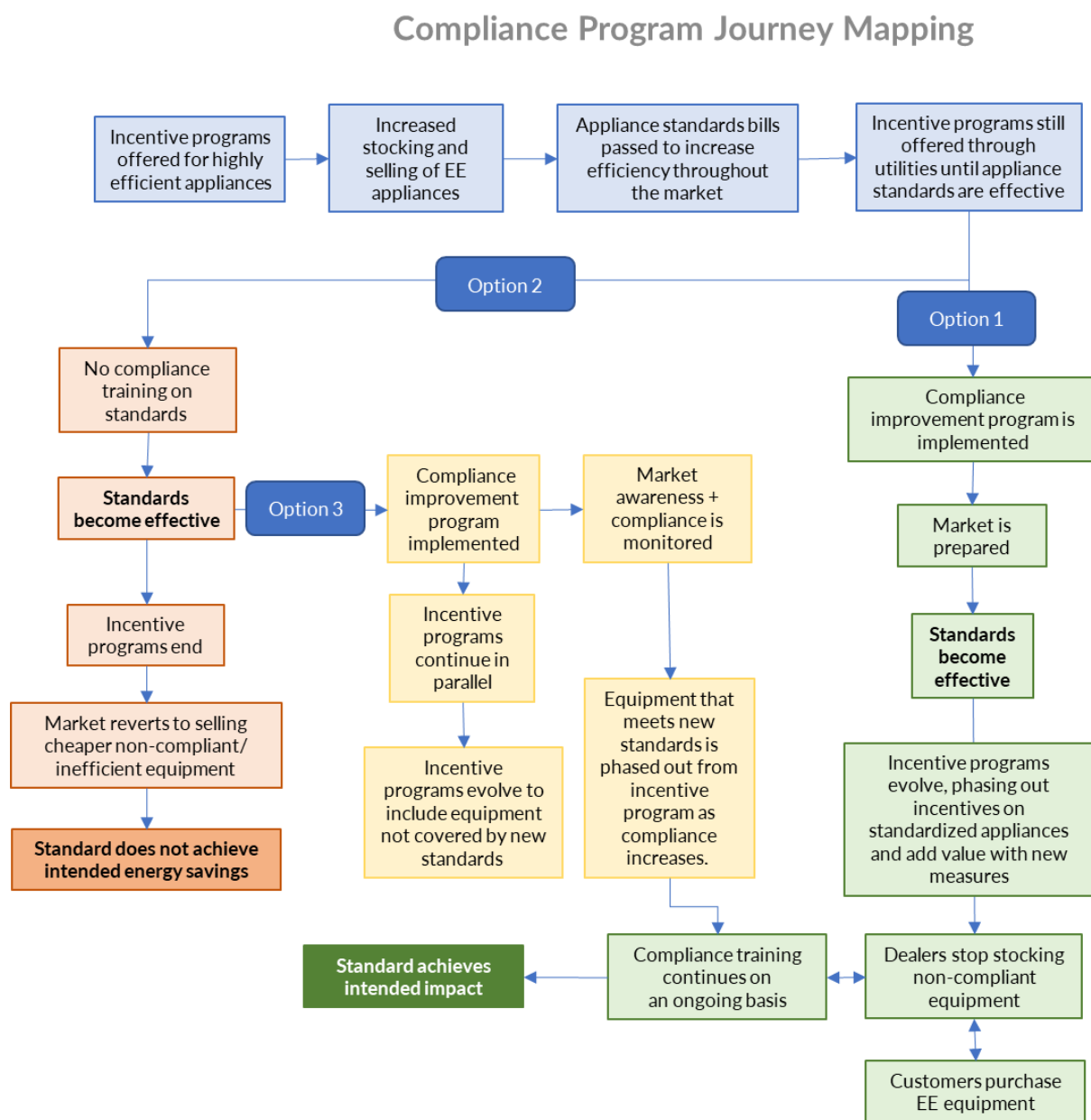


Figure 3: Process flow for the implementation of state standards and the opportunity for a compliance program to improve outcomes.

As depicted in Figure 3, many states that have adopted appliance standards in the last few years are currently following Option 2 (orange), which heavily relies on enforcement to achieve compliance. Using reactive enforcement as the only tool to improve compliance can require significant state resources and does not address the broader lack of market actor awareness. Option 1 (green) presents the most streamlined path to high compliance and impact of state

standards, though Option 3 (yellow) may be more realistic for states with standards that have already become effective or will become effective soon. Even if a state has not started implementing a compliance program to prepare the market, this does not necessarily mean that the energy savings and GHG reductions will not come to fruition. States can begin structuring and implementing compliance programs that engage with all impacted market actors and educate them on how to comply. Incentive programs can continue to run simultaneously as the market comes up to speed with the new regulations. Utilities that offer incentives can assist through appliance standard compliance education as they slow down their programs. After most of the market has been made aware of the new standards, utilities can evolve their incentive programs to include new technologies and products.

Enhanced Compliance Evaluation

Compliance with state standards is a process, not a single step. Compliance can shift from high to low and back again, but to achieve high rates of compliance, states must first understand what the current compliance rates are. Evaluating the compliance landscape with state standards can happen in many ways, and could be conducted by a state, a utility program, or even as part of a multi-state effort. Identifying individual non-compliant products can start to give a state perspective on violations and can allow a pathway for potential state standards enforcement actions. It can be hard to know if a single non-compliant product is an anomaly or a symptom of a larger problem; if non-compliant products are found, a state can set the example for the rest of the industry by sharing this information widely. As mentioned earlier, setting up an online form, email address, and/or phone number is a simple way for complaints to be submitted. If the industry understands that there is a mechanism to easily gather this information, it will elevate the pressure to get and stay in compliance.

Additionally, states, utilities, or other multi-state efforts can do online marketplace research to find products that are not compliant. This would include looking into retailers to evaluate if the products they are offering for sale in a given state are certified to the MAEDbS or SASD, or if they are labeled such that they would meet the efficiency level of the product, such as being marked as ENERGY STAR-qualified. Because online retailers often ship to any location, if a suspected noncompliant product is identified, the state should first try to order that product to a location within their state to determine if the retailer has any backstops to prevent shipping. If it ships, a state could use that information to create an enforcement case, or they can warn the manufacturer, distributor, and retailer that the non-compliant product was found and it is expected to be removed immediately.

States can also evaluate what is available on store shelves. Though this is more labor intensive, an in-store audit is an effective way to evaluate compliance holistically. If store shelves show only a few compliant products and the rest do not meet the state standards, that indicates low compliance and likely low market awareness of the standard. If there are only a few non-compliant options, particularly if discounted or on clearance, that indicates a retailer may be trying to sell through the last of their non-compliant stock before fully shifting to a compliant stock. In-store audits and shelf stocking surveys are another example of the type of activity that could benefit from utility program support. As those programs are likely to already have field staff in-person at retailers, utility program field staff can expand their efforts relatively easily at retailers to include state standard compliance support. Utility field staff are also accustomed to educating retailers about new products and efficiency program offerings/rebates and can likely be tapped to educate the same retailers about new state standards.

Enforcement Best Practices

Finally, the last—but certainly not least—mechanism to ensure state standards have their intended impact is enforcement. Most states with new standards have some authority to levy fines against non-compliant market actors established as part of the enabling legislation.²² In most cases, the language allows states to levy fines up to a certain threshold but leave significant room for discretion in how it is implemented. Some states, such as California, have established an enforcement program to pursue cases against non-compliant product manufacturers and retailers. Other states may decide to sporadically exercise their enforcement authority. Some states may internally determine that they do not plan to enforce, however, having that authority may embolden the state to publicly denounce a non-compliant product, knowing that the ability to enforce is a last resort. Public notification of non-compliant products can demonstrate to the industry that the regulation is being taken seriously. The CEC has a comprehensive list of the criteria to be considered when pursuing a penalty for state standards non-compliance.²³ While this criterion is specific to California, the core recommendations are comprehensive to ensure that enforcement actions are reasonable and impactful without being overly punitive.

Conclusion

State appliance standards have the potential to bring significant monetary benefits to consumers and help states and utilities achieve their energy and GHG reduction goals. Since appliance standards impact all consumers, the benefits can be equitably dispersed across communities. However, more can be done to allow states and utilities to better work together and leverage existing efficiency programs to ensure that markets fully transition to efficient products. Tools and programs can help ensure that standards are effective by providing legislative support, proactive outreach, and compliance programs.

Most state appliance standards are limited to energy and water conservation and the associated GHG benefits, but state standards have the potential to build up the regulatory and logistical infrastructure to advance other policies. For example, the appliance standard framework could be applied directly to demand flexibility standards, a key strategy for decarbonizing buildings that is growing in importance as energy supply becomes increasingly dominated by inherently more intermittent renewable energy sources (Massachusetts 2020). While still under consideration by many states, other decarbonization policies such as building performance standards and emissions-based standards, which regulate products based on emissions criteria rather than energy, should be implemented using a similar regulatory mechanism as established through state appliance standards. States that establish a strong regulatory infrastructure with appliance standards can build on that foundation to advance future policies.

When coupled with rigorous and effective compliance efforts, today's state appliance standards lead to energy, water, consumer cost, and GHG reductions and contribute to an equitable, decarbonized future. The standards of tomorrow have the potential to go even further to advance these universally beneficial objectives.

²² Full list of state standard enforcement authority at neep.org/sites/default/files/media-files/enforcement_best_practices.pdf

²³ Detailed in the Criteria from California Appliance Efficiency Regulations Section 1609(b)3 <https://energycodeace.com/site/custom/public/reference-ace-t20/index.html#!Documents/section1609administrativecivilpenalties.htm>

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