THE COMMONWEALTH OF MASSACHUSETTS

EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
100 CAMBRIDGE STREET
SUITE 900
BOSTON, MA 02114
(617) 626-1000
www.mass.gov/eoeea

OFFICE OF THE ATTORNEY GENERAL
ONE ASHBURTON PLACE
BOSTON, MA 02108
(617) 727-2200
www.mass.gov/ag

June 25, 2010 Jennifer Verner for Fred Augenstern
~~June 25, 2009~~

BY CERTIFIED MAIL, RETURN RECEIPT REQUESTED
Certified Mail No. 7008 1830 0003 6962 2005

Ms. Brenda Edwards-Jones
United States Department of Energy
Building Technologies Program
Mailstop EE-2J
Room 1J-018
1000 Independence Avenue, SW
Washington, D.C. 20585-0121

Re: Docket No. EERE-BT-PET-0024 - Commonwealth of Massachusetts' Petition for Exemption from Federal Preemption of Massachusetts' Energy Efficiency Standard for Residential Non-Weatherized Gas Furnaces.

Dear Ms. Edwards-Jones:

In accordance with 42 U.S.C. § 6297(d), 10 C.F.R. §§ 430.40 - 430.49, and the Notice published by the U.S. Department of Energy ("DOE") at 75 Fed. Reg. 32177-32178 on June 7, 2010 (the "Notice"), the Commonwealth of Massachusetts hereby submits for filing and DOE's review one signed original paper copy of the following document:

Rebuttal Comments of the Commonwealth of Massachusetts in Support of Its Petition to Exempt from Federal Preemption Massachusetts' 90% Annual Fuel Utilization Efficiency Standard For Non-Weatherized Gas Furnaces, dated June 25, 2010.

In accordance with the Notice, the Commonwealth is this date e-mailing a copy of these Rebuttal Comments and this letter to DOE at: MAExemptPetition@ee.doe.gov.

We appreciate the opportunity to file these Rebuttal Comments and thank DOE very much for its attention to and consideration of them. We certainly hope they help convince DOE that it should grant the Commonwealth's Waiver Petition and prescribe the requested 90% AFUE waiver rule.

Kindly advise us if DOE needs anything further from this Office in order to proceed with the waiver review process.

Thank you for your assistance and cooperation.

Sincerely,

COMMONWEALTH OF MASSACHUSETTS

MARTHA COAKLEY
ATTORNEY GENERAL

PHILIP GIUDICE, COMMISSIONER
MASSACHUSETTS DEPARTMENT OF ENERGY RESOURCES

By: _____

Frederick D. Augenstern (BBO# 553102)
Assistant Attorney General
Environmental Protection Division
1 Ashburton Place, 18th Floor
Boston, Massachusetts 02108
617-963-2427
E-mail: Fred.Augenstern@state.ma.us

UNITED STATES DEPARTMENT OF ENERGY

Docket Number EERE-BT-PET-0024

REBUTTAL COMMENTS OF THE COMMONWEALTH OF MASSACHUSETTS IN SUPPORT OF ITS PETITION TO EXEMPT FROM FEDERAL PREEMPTION MASSACHUSETTS' 90% ANNUAL FUEL UTILIZATION EFFICIENCY STANDARD FOR NON-WEATHERIZED GAS FURNACES

Submitted by:

The Commonwealth of Massachusetts, acting by and through the Massachusetts Department of Energy Resources, a Department of the Massachusetts Executive Office of Energy & Environmental Affairs

and

Massachusetts Attorney General Martha Coakley

June 25, 2010

I. INTRODUCTION

The Commonwealth of Massachusetts, acting through its Department of Energy Resources (a Department of the Massachusetts Executive Office of Energy & Environmental Affairs) and the Massachusetts Office of Attorney General Martha Coakley, appreciates the opportunity to submit to the U.S. Department of Energy ("DOE") its rebuttal to comments filed in this docket by the American Gas Association ("AGA") and the Air-Conditioning, Heating and Refrigeration Institute ("AHRI"). AGA's and AHRI's comments both consist of little more than unsubstantiated scaremongering that the granting of the Commonwealth's Petition for a Waiver from Federal preemption for its 90% Annual Fuel Utilization Efficiency ("AFUE") minimum efficiency standard for residential, non-weatherized gas-fired furnaces (the "Waiver Petition") would negatively affect consumers and manufacturers. AHRI's comments are especially disingenuous in light of the organization's public support, as a signatory to a consensus agreement[1] recently filed with DOE, for a 90% AFUE furnace standard in states in the northern tier of the Nation with greater than 5,000 heating degree days ("HDDs"). Massachusetts, with greater than 6,000 HDDs annually, is one of these states. After a brief description of the Procedural History of this case and a Summary of the Waiver Petition, the Commonwealth provides comments to address AGA's and AHRI's meritless arguments.

A. Procedural History

On October 6, 2006, DOE issued a Notice of Proposed Rulemaking ("NOPR") for residential furnace and boiler efficiency standards. 71 Fed. Reg. 59204. Among the issues addressed in the NOPR, DOE stressed that the Energy Policy and Conservation Act ("EPCA") contemplates waivers of Federal preemption of state energy conservation standards. *Id.*; 42 U.S.C. § 6297(d). DOE then discussed evidentiary and strategic approaches states might take to support a petition for waiver, describing some factors DOE would consider in evaluating a waiver petition. *Id.,* at 59209 – 59210.

Among these, the NOPR highlighted the importance of a state "identify[ing] the saturation of homes with products that already meet those higher standards . . . [by] provid[ing] evidence that a significant percentage of gas furnaces sold today in the State already meets, for example, a 90-percent-AFUE condensing standard." 71 Fed. Reg. 59210. As regards EPCA § 327(d)(1)(C)(ii), DOE noted that a state also could identify alternative non-regulatory state programs that have not worked in order to show that the "costs, benefits, burdens and reliability" of energy savings from mandatory State energy conservation regulations make such regulations preferable to voluntary state programs. 71 Fed. Reg. 59210.

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[1] Agreement on Legislative and Regulatory Strategy for Amending Federal Energy Efficiency Standards, Test Procedures, Metrics and Building Code Provisions for Residential Central Air Conditioners, Heat Pumps, Weatherized and Non-Weatherized Furnaces And Related Matters, October 13, 2009, available at: http://www.ahrinet.org/Admin/Pages/Util/ShowDoc.aspx?doc=1635.

Under EPCA § 327(d)(3), the burden is on "interested parties" – most likely those who oppose a waiver petition – to show "by a preponderance of the evidence" that granting the waiver petition would "significantly burden manufacturing, marketing, distribution, sale or servicing of the covered product on a national basis." In the NOPR, DOE suggested several categories of information a state could bring forward that would, presumably, rebut efforts by "interested parties" to demonstrate the types of burdens described in § 327(d)(3). As DOE noted, a state "would want to address the extent to which manufacturers already produce and sell products that would meet the state's proposed standard" and "how efficiencies of shipments to that state already vary from current DOE efficiency levels." 71 Fed. Reg. 59210. DOE also noted that a state "might wish to provide evidence that demonstrates that there are no, or insignificant, differences between small and large manufacturers with respect to producing and selling furnaces in that state." 71 Fed. Reg. 59210. The Commonwealth does so in the Optimal Report (Attachment D to the Waiver Petition), at 10.

Lastly, the NOPR guidance addressed the issue of whether approval of one state's waiver petition "is likely to contribute significantly to a proliferation of State appliance efficiency requirements." 71 Fed. Reg. 59210. DOE wrote that:

> In addressing this factor a State seeking a waiver from DOE may wish to demonstrate, for example, the extent to which it has chosen identical standard levels as other States that have developed proposed regulations or States that have regulations already in place." *Id.*

On November 19, 2007, DOE followed up on the NOPR by issuing a final rule (the "Final Rule") on residential furnace and boiler efficiency standards. In it, DOE set 80% AFUE as the standard for non-weatherized gas furnaces ("NWGFs). 72 Fed. Reg. 65136 - 65137. DOE reiterated that "States can apply for waivers from federal preemption" and referred back to the conditions described in the NOPR and other criteria under which it would consider granting a waiver. 72 Fed. Reg. 65151-65152. After the filing of a legal challenge to the Final Rule in the Second Circuit Court of Appeals,[2] the Final Rule was remanded to DOE to be revisited and is currently before the agency.

It was under this backdrop that the Commonwealth, pursuant to § 327(d) of EPCA, delivered the Waiver Petition that DOE received on October 6, 2009. DOE accepted the Waiver Petition for filing purposes under 10 C.F.R. 430.42(f) on November 6, 2009. On January 28, 2010, DOE published a notice of receipt of the Waiver Petition at 75 Fed. Reg. 4548, and set March 29, 2010, as the date by which interested persons could comment on the Waiver Petition. On June 7, 2010, DOE published a notice at 75 Fed. Reg. 32177 which set July 7, 2010, as the date by which rebuttal comments could be filed.

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[2] *State of New York et al. v. Department of Energy et al.*, Docket Nos. 08-311-ag(L), 08-312-ag(con).

Ten comments in support of the Waiver Petition were formally filed by interested parties by March 29, 2010. These were posted on DOE's "State Petitions" web page.[3] This support came from a broad range of municipalities, consumer groups and environmental organizations, including:

1. Massachusetts Consumers' Council/Massachusetts Consumers' Coalition/MassPIRG/Consumer Assistance Council.
2. Conservation Law Foundation.
3. Northeast Energy Efficiency Partnerships.
4. Cape Light Compact (a 21-town inter-municipal energy services organization).
5. City of Boston.
6. City of Cambridge.
7. Bay State Gas Company.
8. Environment Northeast.
9. Massachusetts Climate Action Network.
10. Massachusetts Union of Public Housing Tenants.

Additional support was offered by the entire Massachusetts Congressional delegation (with the exception of Senator Scott Brown). On March 26, 2010, the members of the delegation signed onto a joint letter to Secretary Chu, expressing their full support for approval of the Massachusetts Waiver Petition.

Opposing comments were filed only by AGA and AHRI. In light of comments by AGA, an association that purportedly represents its gas company members, the Commonwealth decided to ascertain the position of the state's operating gas companies regarding the Waiver Petition. The Commonwealth concludes that AGA's comments are directly contrary to the positions that have been taken by the Commonwealth's gas distribution companies.[4] In the initial round of comments filed in this docket, Stephen Bryant, President of Bay State Gas Company, noted his company's support for the Waiver Petition. Letter of Stephen Bryant to Ms. Brenda-Edwards-Jones (Mar. 16, 2010).[5] The Commonwealth has separately confirmed, through e-mail and telephone communication, that virtually every other operating gas company in Massachusetts supports the Waiver Petition, as well. Those supporters include New England Gas Company,[6] a subsidiary of Southern Union Gas; NSTAR Gas;[7] Berkshire Gas Company;[8]

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[3] http://www1.eere.energy.gov/buildings/appliance_standards/state_petitions.html

[4] The Commonwealth is not aware of which of the gas companies in Massachusetts are members of AGA.

[5] Available at: http://www1.eere.energy.gov/buildings/appliance_standards/pdfs/ma_petition_comments/ma_statepetdoc_13002.pdf

[6] Per e-mail correspondence dated June 16, 2010 and confirming telephone conversation of June 23, 2010 with James Carey, Marketing Manager for New England Gas.

[7] Per telephone conversation with Penelope Connor, Vice-President, NSTAR.

[8] Per e-mail and telephone correspondence with Mike Sommer, Manager, Energy Services, Berkshire Gas.

and Fitchburg Gas & Electric Company (a Unitil Corporation subsidiary).[9,10] The Commonwealth expects that by the July 7, 2010, deadline for filing rebuttal comments, letters from most or all of these operating gas company supporters will be filed with DOE.

In deciding whether to grant the Waiver Petition, DOE should bear in mind the very broad range of support that the Waiver Petition enjoys from state and local governments, from consumer and environmental groups, and from the state's operating gas companies.

By this rebuttal submission, the Commonwealth fully responds below to AGA's and AHRI's comments.

B. Summary of the Waiver Petition.

Massachusetts filed the Waiver Petition to obtain authorization under § 327(d) of EPCA to implement the Commonwealth's 90% AFUE standard for residential furnaces adopted in § 11 of Chapter 139 of the Acts of 2005, entitled "An Act Establishing Minimum Energy-Efficiency Standards for Certain Products," which is now codified at Massachusetts General Laws ("M.G.L.") c. 25B, §5. The revised Massachusetts standard was adopted to save energy and return significant economic savings to Massachusetts consumers.

In the Waiver Petition, the Commonwealth demonstrated its entitlement to a waiver under EPCA § 327(d)(1)(B), 42 U.S.C. § 6297(d)(1)(B), by establishing that its 90% AFUE standard "is needed to meet unusual and compelling state . . . interests." Supported by various studies and other materials, the Commonwealth explained that it has several unusual and compelling interests that merit a waiver. First, residential heating consumers in the Commonwealth are burdened by some of the highest energy prices in the country. These costs are more than twice as high as those in some of the lowest-cost states, and they are well above the national average.

Second, those same customers need to consume far more natural gas to operate their furnaces and keep warm than customers in most other states, as the annual number of HDDs in Massachusetts generally exceeds 6,000. On this point, Massachusetts noted DOE's guidance in the NOPR, 71 Fed. Reg. 59209 – 59210. This guidance suggests that States with higher-than-average HDDs should have the best prospects for demonstrating "unusual and compelling" interests to support a waiver, because higher heating requirements equate with significantly higher furnace

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[9] Per e-mail and telephone correspondence with George Gantz, Vice-President, Unitil

[10] By letter dated June 21, 2010, Ed White, Vice-President for Energy Products at National Grid, sent a letter to DOE Assistant Secretary Cathy Zoi in docket RIN 1904-AC06, voicing the Company's strong support for a 90% AFUE (or higher) standard in that docket. While the Commonwealth believes that NGRID similarly supports its request for 90% AFUE through the Waiver Petition, the Commonwealth has not been able to formally confirm NGRID's position. The Commonwealth has not been able to ascertain the position of Blackstone Gas Company, which serves a very small number of customers in the town of Blackstone.

use, and a "stricter-than-federal" State standard would be cost-effective and would provide more energy savings than the Federal standard. *Id.*

Third, Massachusetts experiences unusual and compelling concerns around consumption of natural gas by residential furnaces. Residential heating loads and natural gas-fired electric generation loads compete for relatively scarce supplies of natural gas in the region, and supply interruptions could result if residential winter heating demand too severely strains supplies.

Fourth, Massachusetts has one of the highest rates of rental housing in the country, which creates unusual barriers to increasing the percentage of households that install high-efficiency furnaces.

Fifth, Massachusetts has unusual and compelling legal interests in increasing the efficiency of heating furnaces. This is not only because its legislature has adopted a 90% AFUE standard for those furnaces in M.G.L. c. 25B, §5, as amended, but also because reducing the consumption of natural gas in furnaces helps to meet the requirements of other state laws, including the Global Warming Solutions Act[11] and Green Communities Act.[12]

The Waiver Petition goes on to show that implementation of the 90% AFUE standard would provide very substantial net present value savings benefits of approximately $77 million. It also demonstrates that significant gas and energy savings would occur over the next two decades. Pointing to DOE's own economic analysis, Massachusetts showed that the 90% AFUE standard is technically feasible as well as economically-justified in states with more than 5,000 HDDs.

As required by EPCA § 327(d)(1)(C), Massachusetts demonstrated that the "costs, benefits, burdens and reliability of energy . . . savings resulting from the State regulation [*i.e.*, the 90% AFUE standard] make such regulation preferable or necessary when measured against the costs, benefits, burdens and reliability of alternative approaches to energy . . . savings . . ." The Commonwealth's extensive Alternatives Analysis showed that implementation of the 90% AFUE standard is far preferable to alternative approaches, almost all of which Massachusetts has already tried. The alternatives were evaluated to be unsuccessful in terms of substantially increasing the penetration of high-efficiency furnaces at the same speed as the new standard would, and the costs to put them into effect would be much higher than simply implementing the new 90% AFUE standard. The Commonwealth further explained that its 90% AFUE standard is fully consistent with the state's Energy Plan and forecast, which was also submitted with the Waiver Petition.

The Commonwealth then explained that the proposed 90% AFUE standard will not significantly burden manufacturing, marketing, distribution, or sale or servicing of furnaces. In making these points, the Commonwealth provided recent

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[11] 2008 Mass. Acts. Ch. 298
[12] 2008 Mass. Acts, Ch. 169.

data to show that furnaces with at least 90% AFUE efficiency have comprised a majority of the furnace shipments to Massachusetts for the past ten years or so, which reflects industry's ability to deliver units at this efficiency to the Massachusetts market without undergoing any substantial burden. Massachusetts showed that manufacturers already produce and sell a very large number of models that meet or exceed the state's 90% AFUE standard, and those units already command a large share of the Massachusetts market, far larger than the share of the national market. Further, Massachusetts showed that high efficiency furnaces already have all of the characteristics and features available in less efficient furnaces sold in the Commonwealth.

The Commonwealth also noted that while it is the only state currently petitioning DOE for a waiver rule regarding furnaces, all of the other states that have adopted standards higher than the current DOE-set standard have chosen 90% AFUE as their standard. Three of those four states (Rhode Island, Vermont, and New Hampshire) are contiguous to Massachusetts.

In the NOPR, DOE also noted that if contiguous states with an above-average number of HDDs were to petition DOE for a rule allowing a higher AFUE standard to go into effect, this "would lessen the impact on manufacturers," 71 Fed. Reg. 59210, and, presumably, make it more likely that the waiver petition would be granted.

II. REBUTTAL TO AGA'S COMMENTS

A. Because AGA's Comments Have Neither Demonstrated That the Commonwealth of Massachusetts Has Failed to Meet its Burdens Under EPCA § 327(d), Nor Satisfied the Legal Burdens that AGA Carries as an Opponent of the Waiver Petition, DOE Should Accord the Comments No Weight and Should Grant the Waiver Petition.

1. Because EPCA § 327(d) Makes Mandatory that DOE Rule on an Administratively Complete Waiver Petition Within One Year After Filing, DOE May Not Defer Decision on Massachusetts' Waiver Petition While Considering Another Docket.

AGA first argues that because DOE is reviewing in its Furnace Rulemaking Analysis Plan ("RAP") Covering Residential Furnaces (75 Fed. Reg. 12144-12148, March 15, 2010) and Subsequent Minimum Efficiency Rule the economic justification and technical feasibility of a possible 90% AFUE regional standard in states with greater than 5,000 HDDs, which includes Massachusetts, DOE should defer ruling on the Massachusetts Waiver Petition. AGA's position completely disregards the EPCA waiver provision requirement that an administratively complete waiver petition must be granted or denied by DOE within no more than one year from its filing date.

EPCA § 327(d)(2) provides in relevant part:

> The Secretary *shall*, within the 6-month period beginning on the date on which any such petition is filed, *deny such petition or prescribe the requested rule*, except that the Secretary may publish a notice in the Federal Register extending such period to a date certain but *no longer than one year* after the date on which the petition was filed. Such notice shall include the reasons for delay. [Emphasis added.][13]

DOE's regulations at 10 C.F.R. 430.46(a) and (c) mirror EPCA § 327(d)(2), and provide:

> (a) After the submission of public comments under §430.42(a), the Secretary shall prescribe a final rule or deny the petition within 6 months after the date the petition is filed....
>
> (c) If the Secretary finds that he cannot issue a final rule within the 6-month period pursuant to paragraph (a) of this section, he shall publish a notice in the Federal Register extending such period to a date certain, but no longer than one year after the date on which the petition was filed. Such notice shall include the reasons for the delay.

The provisions of EPCA § 327(d)(2) and 10 C.F.R. 430.46(a) and (c) are clear and unambiguous that petitions for waiver "shall" be decided within six months, or within a one-year maximum if DOE needs the extra time and gives its reasons for taking it. In interpreting EPCA § 327(d)(2)'s time limits for DOE action, the U.S. District Court for the Southern District of New York has stated that the language of EPCA § 327(d)(2) "does require DOE to act on a waiver application within six months." *Crazy Eddie, Inc. v. Cotter,* 666 F. Supp. 503, 506 n.3 (S.D.N.Y. 1987) (deciding that New York's air conditioner efficiency standards were not preempted by EPCA when DOE had issued neither a contrary efficiency standard nor a valid "no-standard" standard). While the Court only directly addressed the initial six-month timeline for DOE action, it stands to reason that the conclusion would apply equally to the one-year timeline. The Court interpreted the statute's timeline to be binding, rather than suggestive.[14]

The use of the term "shall" in the statute reflects the mandatory nature of the requirement of DOE action within the prescribed time period. Neither the other sub-sections of EPCA § 327(d), nor any other provision within the balance of EPCA or the Code of Federal Regulations, permits the agency to defer ruling on the Waiver Petition just because another docket exists in which a similar issue is being considered. DOE must conform its actions to the will of Congress and review and decide the Waiver Petition within the one-year limit.

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[13] On January 28, 2010, DOE advised that it would, pursuant to 10 C.F.R. 430.46(c), take the full year, until October 6, 2010, to rule on the Waiver Petition. 75 Fed. Reg. 4549.

[14] We point out that in *California Energy Commission v. DOE*, 585 F.3d 1143, 1152 (9th Cir. 2009), the Court noted that DOE acted on California's clothes washers waiver petition within one year.

An analogous provision of EPCA, § 325(e)(4)(B), provides that "the Secretary *shall* publish final rules not later than January 1, 2000..." In interpreting that section, the U.S. Court of Appeals for the Second Circuit ruled that "under the EPCA, DOE is not free to conduct rulemakings at its own pace; but, rather, Congress has required that rulemakings be completed periodically and *at specified times*." [Emphasis added.] *Natural Resources Defense Council v. Abraham,* 355 F. 3d 179, 195 (2d. Cir. 2004) (holding that DOE's downward alteration of efficiency standards was barred by EPCA's anti-backsliding provision). *See also, Huffman v. Western Nuclear, Inc.,* 486 U.S. 663, 671-672 (1988) (use of "shall" indicated that certain restrictions of the Atomic Energy Act were mandatory, and in certain circumstances DOE has no discretion to decline to impose them.)

The regulatory scheme provides protections that should assuage AGA's concerns about having to deal with a Massachusetts 90% rule. If DOE were to grant the Waiver Petition within one year and then amend the current 78% AFUE standard to at least 90% AFUE (as DOE is considering in the parallel RAP proceeding), a mechanism exists for the withdrawal of the Massachusetts 90% rule in deference to the new Federal standard. Under EPCA § 327(d)(6), the Secretary "shall" withdraw any rule received by Massachusetts if, upon petition by "any person subject to such State regulation" and a showing by a preponderance of the evidence that a new federal standard has been implemented, the Secretary determines that the rule should be withdrawn. DOE's regulation at 10 C.F.R. 430.41(c) echoes this concept. Therefore, neither AGA, nor anyone else, should be concerned about a complicating inconsistency between a new Massachusetts 90% AFUE rule and a Federal standard that equals or exceeds it; the latter would prevail.

B. Massachusetts' Involvement in the Second Circuit Challenge to DOE's 80% AFUE Standard Provides No Intelligible Rationale for Avoiding a Decision on the Waiver Petition.

In its Comments, AGA infers that the Commonwealth's status as a petitioner in the Second Circuit Court of Appeals challenge to DOE's 80% AFUE rule for gas-fired furnaces[15] should limit the Commonwealth's right to have its Waiver Petition considered by DOE. As far as we can discern, AGA's rationale seems to be that Massachusetts somehow consented to or accepted that its separate right to file the Waiver Petition was diminished by its agreeing to a remand of the agency action in that case.

AGA's position is devoid of legal or factual support. Nothing in the remand of the Second Circuit case was intended to, or in any way resulted in, any abrogation of or limitation on the Commonwealth's right to file the Waiver Petition. AGA can point to no filings or Court orders that remotely support its outlandish proposition. EPCA § 327(d) grants any state the right to petition DOE for a waiver of federal preemption, and nothing contained in the Second Circuit case or what was published about it in the Federal Register (and cited to by AGA in its Comments, at 2) in any way diminishes that right.

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[15] *State of New York, et al. v. Department of Energy, et al.*, Docket Nos. 08-0311-ag(L) and 08-0312-ag(con).

Massachusetts has determined that the best and fastest way for it to implement its own 90% AFUE state standard to benefit its consumers is to pursue the waiver process to conclusion while DOE also considers whether to adopt a 90% AFUE standard, as promoted in the Advocate-Industry "Consensus Agreement." If a Federal 90% AFUE standard were to be formally adopted by DOE before the October 6, 2010, deadline for ruling on the Waiver Petition, and were implementation set for the suggested May 1, 2013, effective date, Massachusetts would be quite willing to withdraw the Waiver Petition and accept a 90% Federal standard. However, there is no guarantee that DOE will be able to act that quickly, or that what may come out of that proceeding will be as stringent and as timely as implementation of Massachusetts' own standard would be if DOE were to grant a waiver. It is, therefore, in the Commonwealth's best interest to pursue its right to a decision on the Waiver Petition by October 6, 2010.

C. AGA's Implication That DOE's Evaluation of the Waiver Petition Would Be Less Than "Transparent" or Less Protective of Consumers Unfairly Denigrates DOE's Authority and Conscientiousness, and Congress's Waiver Process Under EPCA.

AGA argues that addressing the issues of consumers and stakeholders in states with greater than 5,000 HDDs is best served by the "open and transparent processes of the DOE rulemaking process" instead of the waiver process. The Waiver Process is itself an open and transparent proceeding in which AGA and AHRI have had an equal chance to comment on the merits of implementing Massachusetts' proposed 90% AFUE standard. As the Commonwealth reads the NOPR and the Final Rule, DOE has already extensively elaborated on the requirements and standards set forth in EPCA § 327(d) for granting a waiver, which are based on technological feasibility, cost-effectiveness, and potential market effects from a new standard. The NOPR even gives explicit direction to states wishing to file for a waiver about how to do so and what to present as evidence, and the Commonwealth closely followed DOE's waiver presentation suggestions in the NOPR. Given the breadth of DOE's prior analysis, there is no reason that the agency cannot bring this experience and its great technical expertise to bear in the waiver process equally with any other rulemaking, especially since a significant portion of the review has already been conducted.

In point of fact, the waiver process is itself a "rulemaking," and a very public and transparent one, at that. We point out the many public comments filed with DOE in support of the Waiver Petition by interested persons and entities. AGA and AHRI have had equal opportunity to file comments and have exercised that right. The Waiver Petition openly and with detailed technical support addresses the impacts that a 90% AFUE standard would have on both consumers and members of industry. Massachusetts has presented substantial evidence of the unusual and compelling situation in which it finds itself – in contradistinction to the remainder of the Nation as a whole – and of its specific need for a waiver. That AGA argues this process is not "open and transparent" is ludicrous on its face and should be disregarded by DOE.

D. AGA is Simply Wrong That Furnace Venting Issues and Their Impacts on Furnace Venting Retrofit Costs Have Not Been Considered.

AGA argues that the Waiver Petition inadequately addresses furnace venting issues and the impact of those issues on consumer costs. The Commonwealth responds that AGA's position is belied by DOE's own internal investigation that led to the Final Rule.

1. Retrofit Costs Were Considered by DOE in the Final Rule's Technical Support Document.

AGA suggests that DOE should, in the parallel furnace rulemaking and RAP rather than this waiver process, conduct a further evaluation of the impacts a 90% AFUE mandate would have on consumers, particularly in the furnace replacement market. AGA bases this argument on the erroneous claim that the Waiver Petition fails to cover the effect that furnace venting issues would have on venting retrofit costs.

The Commonwealth's Waiver Petition analysis was based in fair measure on DOE's own analysis completed in 2007 and documented in the Final Rule's Technical Support Document ("TSD"). Appendix C of the TSD "Installation Cost Mode" clearly explains how retrofitting existing venting systems impacts costs of installation. An illustrative portion of the TSD's Introduction to Appendix C, at C-1, is provided below:

> The Department of Energy (DOE) created a complex installation cost model called the "Installation Model" based on RS Means, a well-known and respected construction cost estimation method[16]. The model encompasses a broad array of product classes, installation sizes, and venting configurations:
>
> - Non-weatherized gas furnaces, oil furnaces, gas boilers, oil boilers
> - New and replacement markets
> - Single and multi-family dwellings
> - Venting Category: I (non-condensing), III (stainless vents), and IV (condensing)
> - Vents: Masonry chimneys, lined and un-lined, type B metal, or plastic PVC
> - Vent Connectors: Single wall and double wall
> - Water Heater Options: Gas (vented in common w/furnace) and electric (isolated)
> - Special situations: Chimney relining, and orphaned water heaters
>
> The model establishes installation costs for all trial standard levels under consideration for the primary non-weatherized gas furnace class. Secondary classes—oil furnaces, oil boilers, and gas boilers— with appreciable vents are also included; weatherized gas furnaces and mobile home furnaces do not have appreciable vents exterior to the appliance, and therefore were not included. This

[16] All cost figures for this chapter are in 2004$.

appendix serves to document the model and its results, and compares it to other known installation cost data sets and assumptions. The model can be downloaded from the DOE website, www.eere.energy.gov/building.html.

It is quite clear from this portion of the TSD that DOE has already considered furnace venting retrofit costs and their impacts on consumers in the replacement context. Massachusetts appropriately relied on DOE's work in this situation.

2. Various Furnace Venting Issues Have Been Considered and Evaluated.

Among its venting issue points, AGA first asserts that the Waiver Petition fails to deal with the concern that 90% AFUE furnaces have positive pressure in the venting system. AGA argues that this condition would prohibit the direct replacement of a common venting application (*i.e.*, single masonry chimney for gas furnace and water heater) in northern climates. This venting application is, in fact, accounted for in DOE's TSD analysis, upon which Massachusetts relied. Replacing an 80% AFUE gas furnace with a 90% AFUE furnaces can require some additional venting work. *See* TSD Appendix C (Figure C.5.2, at C-35) for the estimated installation costs associated with these types of venting reconfigurations. Energy/cost savings accrued during the lifetime of the higher efficiency units more than make up for the additional upfront cost detailed. According to Table 11.3.6 in Chapter 11 of the TSD, 90% AFUE furnaces are not cost effective for only 22% of applications. Weighted average cost savings are $212 across all applications.

AGA claims that direct replacement of the single chimney venting option would no longer be permitted in the replacement market, which would result in both added cost to reline the masonry chimney to accommodate the gas water heater, and potential safety concerns if the remaining water heater vent is not resized to permit the proper venting of combustion products from the water heater. Once again, AGA overstates its case. The TSD analysis reflects that DOE understands and has considered that the replacement market involves venting retrofits and additional associated costs. Safety concerns were also considered by DOE:

> "In considering amended standards in the October 2006 proposed rule and in adopting today's standards, the Secretary considered the potential for furnace and boiler standards to pose public health risks due to carbon monoxide release into the home as a result of venting system or heat exchanger failure. As discussed in section VI of this preamble, potential safety concerns were weighed against adopting certain standard levels."

72 Fed. Reg. 65140. *See also*, 72 Fed. Reg. 65163. According to the furnace manufacturers, "[t]he need for venting system upgrade applies whether the furnace is an 80% or 90% model.....In just the past ten years alone about 7.5 million condensing furnaces went into replacement installations in the U.S." The Commonwealth is aware of no evidence from the field over that time that consumers are incurring a higher safety risk

because they chose to not address the water heater's venting system when the new condensing furnace was installed.

AGA posits that because 90% AFUE furnaces (positive vent) would need a dedicated vent discharged to an appropriate outside area that may not be in close proximity to the furnace it serves, performance characteristics of the "common vented" applications would be altered and sales would be burdened. Once again, AGA has raised a non-issue in a vain attempt to undercut the Waiver Petition.

While difficult installations might present a problem in some less forward-thinking jurisdictions that have failed to recognize the issue, this will not be the case in the Commonwealth. At the time of passage of § 11(3) of Chapter 139 of the Acts of 2005 (now codified at M.G.L. c. 25B, §5), our Legislature included a provision that allows for compliance exemptions for furnaces with special and problematic venting situations. The law provides in relevant part:

> The commissioner [of DOER] may adopt rules to exempt compliance with these furnace or boiler standards at any building, site or location where complying with said standards would be in conflict with any local zoning ordinance, building or plumbing code or other rule regarding installation and venting of boilers or furnaces.

While the percentage of "problem installations" is likely to be small[17] – actually in the less than 5% range (*see* p. C-11 in Appendix C of the TSD and Figure 2.5) – the Massachusetts statutory exception is a perfect solution to overburdening sales. Less efficient units that require less complex installations will remain permissible options for special-situation consumers. We point out that DOE's cost analysis would, if anything, overstate consumer venting costs in Massachusetts because the most expensive installations – that is, the problem installations described herein – may well be excepted by the Commissioner of DOER. Even so, DOE found and showed net benefits from a 90% AFUE standard while rolling in *all* installation costs.

As to the claim that the topic of possible alterations of performance characteristics was not properly addressed, the Commonwealth begs to differ. DOE's analysis takes this issue into account (*see* TSD Appendix C) and offers the variety and likelihood for each potential alternative. There is no reason to believe that water heater or furnace sales would be affected by this standard.

In point of fact, the actual experience in Massachusetts is that thousands of these high-efficiency furnace units have already been installed, and the market penetration is

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[17] The Commonwealth, through its operation of the Weatherization Assistance Program ("WAP") (*see* 42 U.S.C. § 6861 *et seq*).run by its Department of Housing and Community Development, has had extensive experience in the installation of 90% AFUE condensing furnaces in a large number of low-income homes over the past decade. The Commonwealth's experience is that site-specific conditions inhibit the ability to install proper venting for condensing units in approximately 5% of the homes served, and that these sites are usually in older, densely-developed urban neighborhoods.

significant. *See* Waiver Petition, at 29; Optimal Report, Section III, at pp. 10-21, and Figures therein.

3. DOE Considered New and Replacement Costs in its Analysis of Life Cycle Costs.

AGA points out that DOE's analysis to date of the HDDs greater than 5,000 does not separate out venting issues between the new construction and furnace replacement markets and their associated installation cost differences. However, while the DOE subgroup analysis in Chapter 11 of the TSD does not separate new construction from replacement applications, the Life Cycle Cost savings shown in the TSD incorporate the various costs associated with venting through its Average Installed Price. The average savings figure of $175 reflects these costs of installation in a weighted fashion for both new construction and replacement applications.

Moreover, were DOE to take AGA's suggested approach of considering the cost impacts of adopting a new standard (or granting of a waiver petition) on the very subset of consumers who are likely to be most heavily impacted by the proposed standard, this would unduly skew DOE's analysis towards rejecting new or revised standards (or waiver petitions). This approach would be contrary to the very purpose of EPCA.[18]

4. AGA Errs Again Because Massachusetts is a State That Has Greater Than 6,000 HDDs, Not 5,000 HDDs, and Consumers Replacing Furnaces Will Still Reap a Savings Over the Lifetime of a New 90% AFUE Furnace.

Again pointing to DOE's analysis in the TSD involving greater than 5,000 HDDs, AGA next argues that the analysis does not break out the new construction and replacement markets and on that basis deduces that the replacement market (roughly 70% of all furnace shipments) is the cohort of customers expected to experience "net cost" or "no impact." AGA goes on to claim that "only a properly scoped and executed analysis (DOE RAP) can address these uncertainties." AGA's position is based on an invalid premise and is therefore untenable.

Massachusetts as a state experiences over 6,000 HDDs annually and thus would reap the higher end of the savings estimated by DOE.

It is critical to understand that DOE looks at the market as a whole, and does not engage in market disaggregation of the sort that AGA suggests in its comments. Considering the market as a whole is precisely what the process of selecting a new standard is all about. The Commonwealth's 90% standard would benefit Massachusetts consumers as a whole.

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[18] *See, e.g.*, 42 U.S.C. § 6295(o)(2)(A) (new or amended standards " . . . shall be designed to achieve the maximum improvement in energy efficiency . . ."); § 6297(d)(1)(A) (". . . the Secretary shall . . . prescribe such [petitioned-for] rule" if waiver requirements met).

E. AGA Demonstrates a Fundamental Misunderstanding of the Massachusetts Market, Which Has Shown About Forty Years of Consumer Migration From Oil to Gas Heating and the Virtual Elimination of Electricity as a Heating Source.

AGA expresses the concern that setting a 90% AFUE standard for gas furnaces in Massachusetts might have "unintended consequences" in terms of shifting customers away from natural gas and towards fuel oil or even electricity as a heating source. AGA offers no documentary or analytic support for the counter-intuitive notion that consumers in Massachusetts, who have been shifting away from oil and towards natural gas use for four decades and who already install 90% AFUE furnaces in about 70% of all installations, would suddenly turn back towards heating oil or even electricity as a heating source. AGA also offers no legal support for the implied proposition that the Commonwealth's Waiver Petition could be denied if some customers might choose to switch their source of heat as a result of the granting of that petition.[19]

Turning to the actual facts, hundreds of thousands of Massachusetts households have switched from oil to natural gas as their heating source since the 1960s, and AGA has offered no convincing explanation as to why that trend would reverse simply due to a higher standard being set for gas furnaces. In 1960, almost 1.2 million Massachusetts households (75% of all households) heated with oil. By 2006, the number of households heating with oil declined to less than 900,000 (36% of all households).[20] In the opposite direction, less than 300,000 Massachusetts households heated with natural gas in 1960, but by 2006, almost 1.2 million did so. Just between 1990 and 2006, the number of gas-heated homes in Massachusetts jumped by 280,000.[21] Consumers in Massachusetts prefer gas over heating oil for a number of reasons that the gas industry itself often promotes. It would make very little economic sense for a property owner to switch from an existing gas-fueled system to oil heat, especially given the need to install an oil storage tank. Based on research performed since AGA filed its comments, the Commonwealth estimates that installing an oil tank would cost at least $1,000, and more likely $1,500 to $2,000.[22] The costs of installing a new oil tank would far outweigh any perceived savings in the installation cost of the oil furnace itself. According to DOE's TSD, a consumer might save at most $500 on the installation cost of the baseline oil furnace compared to the installation cost of a 90% AFUE. *See,* TSD, Appendix C, C.5.1 and C.5.3, at C-32 and C-36. This potential savings would be dwarfed by the extra cost of installing an oil tank.

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[19] While 42 U.S.C. § 6297(d)(3) allows the Secretary, in ruling on a waiver petition, to consider the burden of granting the requested rule on "manufacturing, marketing, distribution, sale or servicing of the covered product," the party offering such an objection bears the burden of so establishing "by a preponderance of the evidence." *Id.*

[20] R. Sherman, J. Wolf & A. Curtis, "Heat Rises: The Growing Burden of Residential Heating Costs on Massachusetts Households" (U. Mass. Donahue Institute, July 31, 2008) ("Heat Rises"), Fig. 17 & p. 23.

[21] "Heat Rises," Fig. 20 & p. 28.

[22] For one on-line estimate, go to: http://www.costhelper.com/cost/home-garden/heating-oil-tank.html. The Commonwealth's consultants also directly contacted companies that install oil tanks.

As for electricity as a heating source, various data sources demonstrate that perhaps 13% of Massachusetts households use electricity as the primary heating source.[23] However, even this low penetration of electric heat is largely an artifact of an earlier era when electric companies offered promotional rates for electric resistance space heating and there were many homes in vacation areas such as Cape Cod which were only occupied during the summer and therefore were built with electric resistance baseboard due to its low initial cost (but with very high operating cost). Massachusetts has the 4th highest residential electricity prices among the 48 contiguous states,[24] and there are exceedingly few new installations of electric heating in the state.[25] Nor would it make rational sense for a homeowner to abandon an existing furnace and install baseboard heating or a heat pump[26] simply to avoid having to install a 90% AFUE replacement furnace – some 70% of all new installations of furnaces are at 90% AFUE or higher, demonstrating that customers are not looking to avoid installing these units.

Thus, to the extent that AGA is attempting to argue that granting the Massachusetts Waiver Petition may "burden manufacturing, marketing, distribution, sale or servicing" of gas furnaces by encouraging hypothesized fuel switching , it has completely failed to establish this "by a preponderance of the evidence." 42 U.S.C. § 6297(d)(3). In fact, the available evidence shows that Massachusetts consumers vastly prefer natural gas as their source of heating supply, and that they are willing to install 90% AFUE furnaces.

F. Low-income Consumers Will Benefit from the Granting of the Waiver Petition.

AGA expresses its concern that granting of the Waiver Petition would burden the interests of low-income consumers. In fact, doing so will provide particular benefits to low-income customers.

First, as discussed in the Waiver Petition, at 18, Massachusetts "has one of the highest percentages of rental housing in the country," which "creates unique barriers for the state's efforts to increase the penetration of high-efficiency furnaces." In rental properties, the owner is usually interested in installing the lowest-cost (and, often, least efficient) furnace because the tenants are usually responsible for paying the heating bills. Moreover, tenants on average have much lower incomes than homeowners, so that the households who are least able to afford high heating bills (renters) often have the most

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[23] "Heat Rises," Fig. 1.

[24] http://www.eia.doe.gov/cneaf/electricity/epm/table5_6_a.html

[25] The Energy Information Administration's 2005 Residential Energy Consumption Survey, which reports data on a regional but not state-by-state level, shows that over 99% of New England's owner-occupied homes are heated with some source other than electricity, although 10% of rental units are heated with electricity. These data reinforce the Commonwealth's view that electric heat is chosen by owners 9or builders) of certain multi-family properties who do not want to incur the initial capital cost of installing furnaces or boilers, nor the ongoing maintenance cost. Conversely, there are almost no homeowners in New England who choose to install electric heat in homes inhabited on a year-round basis.

[26] AGA has offered no data or analysis regarding possible switching to heat pumps, yet it bears the burden on this point under 42 U.S.C. § 6297(d)(3).

expensive systems to operate. To the extent that owners of rental properties would be prohibited from installing furnaces of less than 90% AFUE efficiency, the tenants in those properties (who are disproportionately low-income) would benefit.

Second, Massachusetts runs a robust heating system replacement program called "HEARTWAP" (Heating Emergency Assistance Retrofit Task Weatherization Assistance Program),[27] which is funded by a set-aside of a portion of the state's Low-income Home Energy Assistance Program ("LIHEAP")[28] funding from the federal government and supplemented by utility energy efficiency program funds. Hundreds of low-income homeowners have their heating systems replaced each year, at absolutely no cost to them, by the Commonwealth's HEARTWAP program. The program *requires* the installation of furnaces with 90% AFUE or higher, except in locations where installation of a condensing furnace cannot be completed in compliance with local zoning or code requirements (*i.e.,* venting requirements). These households need not worry about the incremental cost of installing a 90% AFUE system.

Third, the Commonwealth expects that adoption of a 90% AFUE standard will result in lower costs for these units, as they will become the "commodity" product rather than a "premium" product that can command larger profit margins. To the extent this comes to pass, low-income consumers, and all other consumers, will benefit.

G. Installations of Condensing Furnaces in Manufactured Homes Would Not Be a Problem, and Home Owners Would Realize Average Savings Over the Life of a 90% AFUE Furnace.

AGA speculates about, but provides no support for, the claim that manufactured home owners may be affected by a new 90% AFUE standard because of higher first cost and installation cost associated with condensing combustion equipment. The Commonwealth asserts that this is the opposite of what the reality would be for owners of such homes.

In general, installations of condensing furnaces are easier in manufactured homes because most of these homes already use through-the-wall venting for furnaces and water heaters. More than half of the furnaces specifically designed for manufactured homes on the market today are already condensing products (140 condensing models vs. 109 non-condensing models in the AHRI directory).[29] Further, according to DOE, consumers purchasing a 90% AFUE mobile home gas furnace would realize average savings of $323 over the life of the product compared to an 80% AFUE furnace. *See*, TSD, Chapter 8: Life-Cycle Cost and payback Period Analysis, and Appendix C. Lastly, manufactured homes make up less than 1% of the Massachusetts housing market, accounting for

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[27] See http://www.mass.gov/?pageID=ehedterminal&L=3&L0=Home&L1=Community+Development&L2=Housing+Energy+Programs&sid=Ehed&b=terminalcontent&f=dhcd_cd_hwap_hwap&csid=Ehed.

[28] See 42 U.S.C. § 8621 *et seq.*

[29] Excerpt from comments of the American Council for an Energy-Efficient Economy (ACEEE) on the March 11, 2010 Energy Conservation Standards for Residential Furnaces Rulemaking Analysis Plan (RAP); April 27, 2010

somewhere between 20,000 and 24,000 housing units out of about 2.6 million homes in this state.[30] Together, these facts demonstrate that AGA's position once again is not tied to actual facts.

H. Although AGA Concludes That Granting the Waiver Petition Would Be Inconsistent With Past Legal Decisions, It Fails to Cite Any.

AGA ends its comments in the same manner as it began them – with an unsubstantiated statement. This time, AGA comments that it believes granting the Waiver Petition "would be inconsistent with past legal decisions." AGA Comments, at 4. Not surprisingly, however, AGA fails to cite even one legal decision that supports its claims, thus undermining its own credibility even further. Massachusetts is unaware of any past legal decisions – judicial or regulatory – that directly support AGA's precise claim: that DOE should defer ruling on the Waiver Petition because of the pendency of the other related proceedings described above. As we laid out at the beginning of these rebuttal comments, the law goes the other way.[31] In fact, the DOE rulings that apply most directly to this case are the NOPR and the Final Decision, which together provide a "roadmap" to *assist* waiver petitioners in proceedings before DOE. Both rulings make it abundantly clear that waivers are a recognized part of EPCA, and neither decision discourages states from seeking them.

Nothing that AGA has set forth in its comments persuasively supports the organization's suggestion that it would be "prudent" for DOE to await the results of the parallel RAP process instead of acting on the Waiver Petition by October 6, 2010. The Massachusetts 90% AFUE standard and the Waiver Petition seeking implementation of it both were developed by the Commonwealth with a clear eye toward consumer impacts, and Massachusetts utilized its own and extensive DOE analysis to support its case that

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[30] The Census website shows for year 2000 24,117 manufactured homes in Massachusetts out of a total of over 2.6 million housing units.
http://factfinder.census.gov/servlet/QTTable?_bm=n&_lang=en&qr_name=DEC_2000_SF3_U_DP4&ds_name=DEC_2000_SF3_U&geo_id=04000US25

The Massachusetts Manufactured Homes Commission shows slightly different data in its 2007-2008 Manufactured Homes Parks Survey, which was designed to get a current and accurate count of the manufactured home parks and units in Massachusetts. A survey was sent to all 351 Massachusetts Boards of Health requesting specific information. The survey identified 251 parks across the Commonwealth and 20,486 sites within the parks, representing the maximum capacity for individual homes within all Massachusetts parks but not the total number of actual homes in all parks. *See* 2008 Annual report from the Commission:
(http://www.mass.gov/?pageID=ehedmodulechunk&L=4&L0=Home&L1=Economic+Analysis&L2=Executive+Office+of+Housing+and+Economic+Development&L3=Department+of+Housing+and+Community+Development&sid=Ehed&b=terminalcontent&f=dhcd_mhc_mhc&csid=Ehed

[31] DOE's 2006 decision denying the California Energy Commission's petition for a waiver of Federal preemption of its residential clothes washer regulation, Docket No. EE-RM-PET-100, 71 Fed. Reg. 78157, is not a negative precedent for the issue presented here by AGA. First, no similar issue was presented or decided in that case. In any event, the Ninth Circuit Court of Appeals reversed the DOE Order denying California's waiver request in that case and remanded the matter to the agency for proceedings consistent with the Ninth Circuit's decision. *California Energy Commission v. Dept. of Energy*, 585 F.3d 1143 (9th Cir. 2009).

the great majority of consumers would benefit from a waiver. The Commonwealth also closely followed the NOPR and Final Order guidance in order to comport with DOE precedent on the waiver process. Massachusetts promulgated its statutory standard approximately five years ago, and at this stage there is no upside for waiting for a potentially lengthier parallel proceeding to be conducted. As described above, if the current RAP process produces a national/regional 90% AFUE standard during this proceeding, or even after the granting of a waiver, the granted Massachusetts 90% AFUE rule would either become moot, or could be withdrawn; therefore, no one is in a position to be harmed because the procedural vehicle of the waiver process is utilized.

III. REBUTTAL TO AHRI'S COMMENTS

A. Like AGA, AHRI Has Failed to Meet The Burdens It Must Meet Under EPCA § 327(d) as an Opponent of the Waiver Petition, and Its Arguments are Just as Unavailing as AGA's

AHRI suggests that DOE should adopt the Consensus Standards Agreement to which AHRI and others – but not Massachusetts – are signatories and deny the waiver petition as "untimely." AHRI explains that its use of this term is meant to reflect that thinking in the area of gas furnace standards has progressed to the point that passage of a 90% AFUE regional standard for states with greater than 5,000 HDDs is a *fait accompli.*[32] While the Commonwealth completely supports DOE's acceptance of such a standard in states with greater than 5,000 HDDs, we cannot be as sanguine as AHRI that this will indeed come to pass, or that it will come to pass within a period of time that would allow implementation in Massachusetts earlier than the grant of a waiver would allow. As described in our rebuttal to AGA's comments, should passage of a national or regional 90% AFUE standard occur that would allow earlier implementation, Massachusetts would either withdraw the Waiver Petition, or, pursuant to EPCA §327(d)(6) and 10 C.F.R. 430.41(c), would agree that the waiver rule could be withdrawn by the Secretary.

AHRI argues DOE should resist being forced to take public positions on legal issues that could later bind the agency in other situations when the Massachusetts petition will soon be moot. First, as already touched upon above, no one has given or could give any assurances that the Waiver Petition will become moot before October 6, 2010 – the date by which DOE is required to issue its decision – because of DOE's or Congress's passage of a 90% AFUE national or regional standard. Second, granting the Waiver Petition would be a position completely consistent with the granting of a 90% AFUE national or regional rule; if AHRI is so sure that such a rule is coming in any event, it should not be worried about DOE's grant of the waiver to Massachusetts. Third, as described above, a 90% AFUE Massachusetts rule could be superseded under EPCA §327(d)(6) and 10 C.F.R. 430.41(c) with passage of an equivalent or more stringent

[32] The use of the term "untimely" could be misleading if read to suggest a missed deadline for filing the Waiver Petition. Of course, there never was such a deadline.

national or regional rule. And, if DOE were to pass a less stringent rule than Massachusetts' rule, then the Massachusetts rule would simply be applied here and nowhere else. In sum, there simply is no justification for non-action on the Waiver Petition by DOE under these circumstances. AHRI's setting itself up as DOE's "champion" is a transparent cover for its manipulation of the process for its own ends.

B. AHRI's Self-Serving Merits Arguments Should Be Rejected Out of Hand.

AHRI takes the position that the Waiver Petition fails on its merits to justify a waiver of federal preemption under EPCA, but the organization's positions are specious and weak. The Commonwealth's Waiver Petition and the attachments filed with it clearly demonstrate that Massachusetts:

- has unique and compelling needs for implementing its 90% AFUE standard;
- has conditions that are substantially different in nature than those applying to the United States, generally, based on a number of factors that include climate, a volatile natural gas market, and various policy initiatives; and
- has shown that regulation is preferable/necessary when compared to the costs, benefits, burdens and reliability of alternative approaches that have been tried or contemplated in Massachusetts.

See Section I.B., above, Summary of the Waiver Petition, and the Petition and its Attachments.

1. The Notion That the Granting of a Waiver Would Result in a "Proliferation" of State Standards is Belied by the Facts, and is in Actuality a Delusive Argument Against All Waivers.

AHRI claims that granting the Waiver Petition would likely result in a proliferation of state standards for this product category which would defeat a key purpose of EPCA (*i.e.*, to reduce burdens on interstate commerce). Without going into any useful detail, AHRI also claims that manufacturers would be burdened if states could set up their own compliance, certification, and standards enforcement schemes. These arguments are unsupported "red herrings," and do not respond in any meaningful way to the instant Waiver Petition that is before DOE.

As described in Section I.B., above, Summary of the Waiver Petition, and in the Petition and its Attachments, every state that has implemented or has considered implementing a furnace standard more stringent than the current federal standard has chosen 90% AFUE as its measure. Three of those four states (Rhode Island, Vermont, and New Hampshire) are contiguous to Massachusetts. This is hardly a "proliferation" of differing state standards.

Further, what AHRI is actually arguing for is the repeal of EPCA § 327(d), because the logical extension of its argument against multiple state standards is that no state should *ever* be able to get a waiver for a covered product if another state *might* seek a waiver for its own program at a different energy efficiency level or with differing compliance, certification or enforcement provisions. By including § 327(d)'s waiver provision in EPCA, Congress clearly appreciated the fact that national standards might not always be able to address the needs or circumstances of particular states. Congress provided that if a state could demonstrate it met the requirements in § 327(d), as interpreted by DOE (*e.g.*, in the NOPR and the Final Rule), then that state could and should be allowed to implement its own unique standard. Nothing in the language of EPCA, DOE's regulations, or DOE's pronouncements in this area bars a state from getting a waiver just because DOE could grant one to another state at a different efficiency level based on that state's own unique circumstances.

AHRI's arguments perhaps should be an inducement to DOE to implement a new national or regional standard at 90% AFUE, which AHRI has publicly supported, but they are not good grounds to refuse to act positively on the Waiver Petition in accordance with Congress's intent, as manifested in EPCA § 327(d).

2. As Made Perfectly Clear in the NOPR, Climate and Climate Change are Recognized Factors in the Waiver Determination That DOE May Appropriately Consider Consistent With Congress's Will.

AHRI next argues that "DOE should be skeptical of waiver claims based on climate," but reliance upon this argument is thoroughly misplaced. DOE specifically recognizes climate to be a very important factor, among many factors, to be considered in the evaluation of a petition for waiver. In the NOPR, DOE expressly pointed out:

> It appears to the Department that in the context of residential furnaces and boilers, where regional *climatic effects* can have a significant impact on whether a specified energy conservation standard would be technologically feasible and economically justified in that region, such regional *climatic effects* will be important in DOE's assessment of whether there are "unusual and compelling State or local energy interests" for State energy conservation standards. States having higher-than-average, population-weighted heating degree days (HDDs) based on long-term National Oceanic and Atmospheric Administration data would seem to have the best prospects for demonstrating "unusual and compelling" interests to support a waiver of preemption.... [Emphasis added.]

71 Fed. Reg. 59209. That AHRI would take the position it does in light of DOE's distinct support for climate considerations is both surprising and rather odd, especially since AHRI must know, as well as any entity, just how much energy, and therefore consumer dollars, can be saved by heating system improvements in cold places. Toward

this notion, AHRI even acknowledges in its comments that "Massachusetts does have colder winters than the national average." Indeed, as described in the Petition and supporting Attachments, Massachusetts has on average nearly 40% to 50% more HDDs than the country taken as a whole, which is a very significant difference. In fact, this is one of the major things that sets states apart from one another, especially in this context. While AHRI correctly points out that Massachusetts' climate "can hardly be considered unusual and certainly not extreme," this is not the test to be applied in a waiver proceeding. The test, instead, is whether a state has HDDs that are greater than the Nation as a whole, as Massachusetts obviously does.

Related is the topic and factor of climate change. Massachusetts has imposed certain state laws that deal with climate change, such as the Global Warming Solutions Act, 2008 Mass. Acts. Ch. 298. A goal of this statute is to use feasible means, such as energy efficiency improvements, to reduce the emission of greenhouse gases in the Commonwealth that contribute to the devastating effects of climate change. Not surprisingly, DOE's review under EPCA of whether a waiver should be granted includes an analysis of the effect a proposed standard would have on reducing emissions of greenhouse gases, such as CO_2 and NO_x. The NOPR itself contains such an analysis, 71 Fed. Reg. 59205, 59248-59249, Tables V.34, V.35 and V.36, thus reflecting the common concerns that DOE and the Commonwealth share on limiting harmful emissions through energy efficiency improvements.

Despite this congruence in state and Federal goals, AHRI attacks the Waiver Petition on the ground that to consider meeting the goals through the waiver process would "subvert the will of the U.S. Congress and trump EPCA federal preemption." Given the preceding explanation, AHRI is at best turning a blind eye toward DOE's directives, and at worst, is being disingenuous.

3. The Commonwealth Need Not Prove That a More Stringent Furnace Efficiency Standard Would Alleviate Any Potential Natural Gas Shortage in Order to Qualify for a Waiver.

AHRI comments that Massachusetts is not unique in having higher natural gas prices than the national average, although it concedes that this is precisely the case because of the state's location at the very end of the gas distribution pipeline. AHRI criticizes that "the petition does not establish any projected shortage of natural gas that more stringent furnace efficiency standards would help to alleviate," even though AHRI clearly acknowledges that the competition for gas supplies described by the Commonwealth in the Petition is very real. AHRI's approach reveals a fundamental misunderstanding of what DOE has described in the NOPR and the Final Rule to be the way to evaluate whether a state is entitled to a waiver.

A state is entitled to a waiver if it demonstrates by a preponderance of the evidence that it has an "unusual and compelling" need for one. In doing so, Massachusetts need not demonstrate interests that are unique in comparison to each and

every state in the country, but only in comparison to the Nation as a whole.[33] Massachusetts has amply met this standard by discussing in the Petition and supporting Attachments a series and combination of many individual factors that together make the case for a waiver. Massachusetts does not need to prove, and does not try to prove, that any single factor alone makes its case. All factors are relevant in the DOE inquiry about whether a state has issues and needs that are different from those applicable to the Nation as a whole. Nothing in DOE's pronouncements in the NOPR or the Final Rule says that a state must show that its interests are "unique" among all states. Indeed, there are advantages to being one among many similarly situated states when it comes to efficiency standards. AHRI has implicitly recognized this by advocating in the Consensus Agreement for a 90% AFUE standard for all state with greater than 5,000 HDDs. DOE itself seems to favor aggregation of state waiver petitions by similarly situated states, which could have the added benefit of lessening the impact on manufacturers. 71 Fed. Reg. 59210.

The Independent System Operator-New England, which is responsible for regional transmission and reliability, noted in 2008 that the "region's heavy reliance on natural gas as the dominant generator fuel type has left the region vulnerable to fuel-supply risks, which can have an adverse impact on system reliability and lead to volatile and high electric energy costs associated with variations in natural gas prices."[34] Fuel savings in the residential heating sector have a direct and tangible impact on the electric generation sector. The Commonwealth's disproportionate reliance on natural gas for electric generation and for home heating compared to the prevailing conditions in the rest of the Nation creates an unusual and compelling interest for a higher standard of furnace efficiency.

4. AHRI Fails to Credit the Substance of the Commonwealth's Alternatives Analysis, Which Substantiates That the Commonwealth Has Maximized the Programs it Has Implemented and That a New 90% AFUE Standard is Critical to Efforts to Increase Market Penetration.

AHRI claims that the Waiver Petition fails to show that the proposed 90% AFUE regulation is necessary or preferable when compared with non-regulatory alternatives, or that alternatives already implemented have not worked in Massachusetts. AHRI does not, however, even mention the Alternatives Analysis submitted by the Commonwealth with the Waiver Petition (Attachment E), let alone controvert it.

The Alternatives Analysis presented 24 pages of solid technical, statistical and analytical data on the many forms of non-regulatory alternatives the Commonwealth has considered and implemented. The well-documented conclusion of the Alternatives Analysis is that implementation of the proposed 90% AFUE standard would cost

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[33] A state can show "unusual and compelling state interest" by comparing itself to national averages, and need not distinguish itself from adjacent states that may have, e.g., similar climate conditions. 71 Fed. Reg. 65152 (Nov. 19, 2007).

[34] Independent System Operator-New England, *2008 Regional System Plan*, p. 3.

substantially less than any of the considered non-regulatory programs and would be timelier in achieving higher market penetration.

AHRI responds with broad conclusory statements and little factual support. Its principal substantive argument, though undocumented, is that an increase to 74% in the market penetration rate for high efficiency furnaces in 2009 indicates that market forces are working and no new regulation is needed.[35] The Commonwealth has concluded through its Alternatives Analysis, however, that the cost to reach 95% market penetration through the use of non-regulatory alternatives will still be much higher than the costs to be incurred if the new 90% AFUE standard were allowed to go into effect here in Massachusetts. Implementation of the new standard would also substantially speed up the Commonwealth's ability to maximize market penetration.

AHRI completely misses a major point of the Alternatives Analysis, which is that the current level of market penetration of gas furnaces has been achieved largely due to the Commonwealth's aggressive and comprehensive implementation of non-regulatory programs, but that these programs have already been utilized to maximum effect. These and other non-regulatory programs cannot take the Commonwealth further at as reasonable a cost and in as timely a manner as would the proposed new 90% AFUE standard. Under such circumstances, granting the Waiver Petition is justified.

5. Although the Commonwealth Inadvertently Overestimated Gas Savings, There Would Still Be Significant Life Cycle Cost Savings from the New Rule at the Revised Gas Savings Level.

AHRI challenges the Commonwealth's calculation of annual natural gas savings from a new 90% AFUE standard and claims that such a standard would have a negligible impact on overall annual energy consumption in Massachusetts. While total gas savings was never one of the Commonwealth's principal arguments in favor of a 90% AFUE standard,[36] the Commonwealth concedes that its estimate inadvertently overestimated annual gas savings. Nevertheless, the Commonwealth maintains that the cost savings to consumers under a revised estimate would still be significant.

The Waiver Petition describes that the Commonwealth's annual projection is for the year 2020. In 2020, Massachusetts will not only be saving gas from the sales of more

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[35] The very same fact of high existing penetration of condensing furnaces also helps to comply with the guidance DOE has provided to states seeking a waiver, which highlighted the importance of a state "identify[ing] the saturation of homes with products that already meet those higher standards . . ." 71 Fed. Reg. 59210 (Oct. 6, 2006).

[36] The principal stated arguments for granting the Waiver Petition are that:

1. Massachusetts has more HDDs than the Nation as a whole.
2. Massachusetts has higher gas rates than the Nation as a whole.
3. Residential heating loads in Massachusetts compete with power generation loads.
4. Massachusetts has a higher percentage of rental housing, which creates market barriers to efficient units.
5. Massachusetts has a unique set of statutes and policies that promote increased energy efficiency and reductions of greenhouse gas emissions.

efficient units in 2020, but will also be saving gas as a result of all the sales of more efficient units between 2013 and 2020. It is important to understand this key point, which is that aggregate sales in the intervening years will continue to provide the Commonwealth with significant savings throughout the inquiry period and the products' lifetimes.

Massachusetts' miscalculation occurred as a result of an assumption discrepancy in the ACEEE analysis upon which Massachusetts relied (*i.e.*, the 37% baseline market share of 90% AFUE furnaces was for the entire country, and did not reflect current market share in Massachusetts, 65-70%). Recognizing this, the Commonwealth has revised the aggregate savings in 2020 to 381 million cubic feet of natural gas. This essentially squares with AHRI's estimate that the annual savings from implementation of the new rule would be approximately 51.2 million cubic feet of natural gas.

While the gas savings may be less than originally estimated, the savings impact at the revised level remains quite significant from the perspective of the individual consumer, at $212 in Life Cycle Cost ("LCC") savings.

As the Commonwealth's Energy Plan (Attachment B to the Waiver Petition) explains, Massachusetts is employing a multi-pronged approach to reduce wasteful energy consumption. An improved furnace standard, at 90% AFUE, will represent one more important piece of Massachusetts' comprehensive strategy.

6. Massachusetts' Goal is to Increase Efficiency for All Consumers, Not Just Renters.

AHRI accuses the Commonwealth of having an ulterior purpose of seeking only to lower renters' utility bills, as if that would be an improper thing to do. The Commonwealth can assure DOE that while this could be one result of the grant of the Waiver Petition, the purpose behind going through this lengthy and expensive waiver process is to have a positive effect across *all* consumer groups within our borders. The efficiency levels prescribed by a new Massachusetts standard would benefit the entire market, save all consumers money, and benefit the environment, as well.

IV. CONCLUSION

The comments by AGA and AHRI have not controverted or refuted in any material way the supporting arguments the Commonwealth has presented in the Waiver Petition. In accordance with EPCA § 327(d)(1)(B), 42 U.S.C. § 6297(d)(1)(B), the Commonwealth "has established by a preponderance of the evidence that such state regulation is needed to meet unusual and compelling State or local energy or water

interests." Therefore, the Secretary should prescribe the requested waiver rule and allow the Commonwealth to implement its proposed 90% AFUE standard for non-weatherized, residential gas furnaces.

Respectfully submitted,

THE COMMONWEALTH OF MASSACHUSETTS

MARTHA COAKLEY
ATTORNEY GENERAL

By: _____
Frederick D. Augenstern
BBO# 553102
Assistant Attorney General
Environmental Protection Division
1 Ashburton Place, 18th Floor
Boston, Massachusetts 02108
(617) 963-2427
Fred.augenstern@state.ma.us

MASSACHUSETTS DEPARTMENT OF
ENERGY RESOURCES
PHILIP GIUDICE, COMMISSIONER

By: _____
Robert Sydney
BBO# 490840
General Counsel
100 Cambridge Street - Suite 1020
Boston, Massachusetts 02114
(617) 626-7333
Robert.Sydney@state.ma.us