

**Public Comments Received on Manufacturers' Draft Outreach and Pilot Project Plans**

**As of June 6, 2016**

**Comment 1**



## COMMENTS ON TRC'S PROPOSED OUTREACH AND PILOT PROJECT PLANS

May 27, 2016

### Introduction

The Thermostat Recycling Corporation's (TRC's) California program performance in 2015 continues a pattern of expending little effort and devoting inadequate resources toward meeting California's legally established mercury thermostat collection goals.<sup>1</sup> The Mercury Thermostat Collection Act was passed in 2008, and yet TRC is still only collecting about 9% of available thermostats.<sup>2</sup> It is particularly troubling that TRC showed little inclination toward serious program improvement while negotiating the very Consent Order triggering the instant Outreach and Pilot Project plans. The net effect of TRC's 2015 lack of effort is an even greater performance deficit than should otherwise exist, casting further doubt on the industry's interest in complying with California law. The proposed Outreach and Pilot Plans must be evaluated in this context, with an eye toward achieving immediate and ambitious program improvements that both increase statewide access to the program (as measured by the number of and geographic coverage of active collection sites) and collection results. As explained below, TRC's proposed plans fail in this regard, due to severe limitations in ambition, scope, and detail.

<sup>1</sup> See NRDC's Preliminary Analysis of TRC 2015 California Mercury Thermostat Collection Results, attached as Appendix A to these comments.

<sup>2</sup> There were 207,000 mercury thermostats available for recycling in California in 2015 under the "low estimate" in DTSC's mercury thermostat collection rules, and the manufacturers collected 18,260.

## Outreach Plan

1. The Outreach Plan submitted by TRC is largely just a proposal for implementing the Pilot Plan rather than a statewide outreach effort. The Outreach Plan should have included a detailed roadmap for approaching each of the potential program participant categories in Exhibit A of the Consent Order, including the identities of the state, regional, and local target contact entities and a schedule for initial contact and follow-up, reflecting a rationale plan for increasing statewide program participation for the next year or more. Instead, TRC proposes a vague set of outreach activities which appear to be largely limited to one city,<sup>3</sup> without any tangible schedule or plan for expanding the geographic scope of the outreach activities beyond that city.<sup>4</sup> Accordingly, the proposed Outreach Plan fails to meet the objective of immediately and aggressively increasing statewide program participation, and is inconsistent with the requirement in the Consent Order to submit an Outreach Plan independent of the Pilot Plan.<sup>5</sup> Accordingly, we urge DTSC to require that TRC submit a true statewide Outreach Plan, and review the submitted Plan merely as part of the Pilot Plan.

2. Even if TRC could properly limit the scope of the Outreach Plan as proposed, the limiting assumptions underlying both the Outreach Plan and Pilot Plan are questionable at best. The locational triage based on income and educational levels, ethnicity (other than language preference for outreach materials), age of buildings, etc. are largely unsubstantiated, and thus provide no factual basis for deviation from the core goal of building awareness and expanding collection access for a wide range of stakeholders throughout California. While focus groups and interview questions can and should inform where additional resources may need to be expended, how best to raise

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<sup>3</sup> Both the Outreach and Pilot Plans are unclear as to which proposed activities, if any, extend beyond one target city, such as San Bernardino. We were recently informed by SGA Associates, authors of the TRC Plans, that the intent is conduct statewide outreach for HHW facilities, and large HVAC and other contractors only. The Plans contain no detail regarding when and how this statewide outreach will be conducted, and limiting statewide outreach to just these Potential Program Participant categories is not sufficient to expand program access statewide. We note SGA TRC determined outreach should consist of a “broad” effort to engage potential program participants at the state and regional levels (TRC Outreach Plan, p. 1), but then failed to follow through on this determination by severely limiting the scope of the statewide outreach.

<sup>4</sup> Indeed, while the Consent Order anticipates a time limited Pilot Plan, the Outreach Plan contains no time limitation in the Consent Order. By seeking to limit the Outreach Plan to a delivery mechanism for the Pilot, TRC provides no long-term outreach roadmap, in violation of the Consent Order.

<sup>5</sup> TRC admits in its Outreach Plan design approach, the second design task was to “determine locations with higher-than-average probability of having as-yet recycled thermostats” (TRC Outreach Plan, p. 1), and that the Outreach Plan will be conducted “in tandem” with the Pilot Plan (TRC Outreach Plan, p. 3). A proper statewide outreach plan would extend beyond the limits of the Pilot Plan, encompassing significant statewide and regional target audiences irrespective of location, and targeting local audiences in multiple locations with potentially high volumes of waste mercury thermostats. We note San Bernardino’s population is 215,000, representing substantially less than 1% of the state’s population.

awareness and participation (such as effective incentives and messaging), what languages information should be disseminated in, and what the most convenient collection options would be for participants, they should not be the principal deliverable in the instant Outreach Plan. The principal deliverable is a plan and schedule for identifying and reaching out to stakeholders throughout the state in a coherent, logical progression.

3. For example, the submitted Outreach Plan does not contain any specifics as to how HVAC wholesaler participation would be increased statewide or otherwise, even though this is TRC's preferred collection channel to date. With only 284 active collection sites in California, it's clear many wholesalers are not actively collecting thermostats in California, whether in San Bernardino or anywhere else. Since TRC proposes only large HVAC contractors are eligible to receive their own collection bin, many HVAC contractors must gain access to the program through wholesalers. Without additional outreach to wholesalers, program access will continue to be inadequate for many HVAC contractors, even though this is TRC's preferred collection channel. TRC should quantify the number of HVAC wholesalers in the state, and propose quantitative milestones for placing collection bins at these locations.

4. Even within the arbitrary confines of the Outreach Plan's geographic limits, the plan lacks significant detail as to how and when specific target entities within the Potential Program Participant categories will be identified, when they will be contacted, etc. Indeed, the bulk of the Outreach Plan is just the location justification for the proposed pilot. It is not possible to evaluate the proposed level of effort based on what was provided.

5. The proposed metrics are meaningless in many cases. For retailers and HHW collection sites, TRC appropriately proposes to evaluate success based upon the number of collection sites added. However, in the case of HVAC contractors, multi-family property housing managers, demolition contractors, etc. a similar metric was not proposed.<sup>6</sup> Instead, TRC proposed process metrics, such as number of brochures distributed. Wherever TRC intends to make collection boxes available to Potential Program Participant categories, the number of collection boxes added must be included for evaluation purposes.<sup>7</sup> Actual thermostat returns should be included as well, compared to prior years. We commend the proposed metrics for retailers in this regard, except insofar as they are limited in scope to the Pilot Plan geographic target area.

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<sup>6</sup> We note under the Outreach Plan, a free collection bin will be provided to large HVAC and demolition contractors (TRC Outreach Plan, pp. 22, 23).

<sup>7</sup> We note under the Consent Order, TRC must "seek the placement of additional bins to collect mercury-added thermostats from the identified Program participants". See Consent Order, Exhibit B, Par. B-1.3.1.

6. In addition to lacking meaningful metrics, TRC proposes no definition of success, either quantitative or qualitative. TRC readily admits neither the Outreach Plan nor the Pilot Plan will be underway long enough for meaningful data to be collected before program plan revisions are due in October (TRC Outreach Plan, p. 34). Accordingly, TRC should be presenting a definition of success and a roadmap for statewide delivery in the instant Outreach Plan.

7. The overall outreach plan is unimaginative and unlikely to reap impressive results in terms of educating professionals and the general public about the necessity to dispose of mercury thermostats at established collection sites. For example, TRC could be utilizing public utility billing systems as opportunities for inserts to inform consumers about both the statewide program, and any local pilots underway. Water and electric utilities should be particularly interested in mercury pollution reduction efforts, given their company interactions with air and water mercury pollution regulatory and remediation issues. TRC could create a phone AP for contractors and other professionals to locate drop off sites, and mimic other EPR programs by advertising, posting billboards, and taking advantage of other visible outlets with a “protect the community from mercury” type messaging. The manufacturers know how to sell products; they should know how to sell their collection program.

7. Regarding local building departments and school districts, TRC should investigate if municipalities, counties, or districts cluster their purchasing with neighboring communities to take advantage of reduced bulk prices. We know they do this with lighting, and there may be an avenue for greater outreach and collection related to other building materials as well.

8. The interview questions for the Potential Program Participant categories appended to the Outreach Plan are flawed as well. The questions assume the target audiences know more they do, are inappropriately limited when discussing incentives, factually incorrect when discussing currently available collection options, seek irrelevant information, or are just poorly worded. We provide marginal comments on the questions for some of the categories as exemplary for all of the questions in the Outreach Plan, attached as Appendix B to these comments.<sup>8</sup>

### Pilot Plan

1. The proposed Pilot Plan is too limited geographically and substantively to achieve immediate and substantial program gains, and to meet the terms of the Consent Order

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<sup>8</sup> In some cases, Appendix B contains earlier drafts of the interview questions provided by SGA, but the earlier drafts are very similar, if not identical, to the versions included in the Outreach Plan as submitted.

for including “a sufficient variety and number of pilot projects to assess the effectiveness of the use of monetary and other incentives to increase Program participation and the number of mercury-added thermostats collected.”

2. The proposed Pilot Plan is limited to one city in California (i.e., San Bernardino), with no roadmap, schedule, or element aimed at expansion beyond that one city. Moreover, as discussed above, the proposed metrics are inadequate, and there is no definition of success, either quantitative or qualitative. Since TRC acknowledges the Pilot Plan will not be underway long enough to generate meaningful data by the time program revisions must be submitted, the Pilot Plan should contain these critical elements.

3. Only two different monetary incentives are proposed. For large HVAC contractors, general contractors, and demolition contractors, TRC proposes the same financial incentive: \$100 per returned thermostat collection bin containing a minimum of 40 thermostats. This proposal is inadequate both with respect to the incentive amount and the lack of variety as called for in the Consent Order. The proposed amount is a maximum of \$2.50 per thermostat, and may indeed be substantially less if more than 40 thermostats are in the returned collection bin. Worse yet, if less than 40 thermostats are collected, no financial incentive will be provided, thus the average collection bin returned in 2015 would **not** qualify for any monetary incentive.<sup>9</sup> Moreover, the incentive payment is delayed for as much as a year (until the collection bin is returned), thereby minimizing the attraction of the incentive. This combination of a small or no incentive, and the payment delay, render this proposed incentive inadequate, particularly for large HVAC contractors where program expansion is a very high priority over the next several years.<sup>10</sup> We believe TRC should be testing a monetary incentive larger than the Maine or Vermont financial incentives of \$5.00 as part of this Pilot Plan, consistent with the Consent Order of including a “variety” of incentive approaches, and California law.<sup>11</sup> Given the need to test higher amounts, the importance of large HVAC

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<sup>9</sup> In 2015, TRC collected 18,260 thermostats returned in 513 collection bins, for an average of 35.5 thermostats per bin. See 2015 TRC California Report, Figure 3.5.

<sup>10</sup> We note in Illinois, 24% of thermostat returns in 2015 originated from large HVAC contractors, as compared to less than 1% in California. See TRC 2015 Illinois Report, p. 2; TRC 2015 California Report, p. 2, available at [http://www.thermostat-recycle.org/resources/media\\_center](http://www.thermostat-recycle.org/resources/media_center).

<sup>11</sup> AB 2347 specifically requires manufacturers to provide direct incentives to promote the recovery of thermostats.

*HSC 25214.8.13 Each manufacturer **shall** individually, or collectively with other manufacturers, do all of the following:*

*(g) Provide incentives and education to contractors, service technicians, and homeowners to encourage the return of out-of-service mercury-added thermostats to established collection locations.*

contractors to eventual program success, and the direct relationship thermostat manufacturers have with many large HVAC contractors, we urge DTSC to require TRC to develop a Pilot Plan for large HVAC contractors that provides a financial incentive significantly exceeding \$5.00 (i.e., \$10.00/thermostat), either in the form of discounts on new thermostat purchases or cash. For the other contractors covered by this Pilot, we urge DTSC to reject the 40 thermostat threshold criterion, and require a minimum of \$2.50 per returned thermostat.

4. The proposed financial incentive of \$5.00 for consumers for returns via retailers, in the form of instant gift cards, is commended. We particularly appreciate the immediacy of the incentive, and predict small contractors will avail themselves of this option as well. However, two important issues remain regarding the proposed retailer pilot. First, TRC also proposes to test a delayed financial incentive model at retailers as well. Testing two different retailer incentive models in the same city is a recipe for consumer confusion and dissatisfaction with the entire pilot. Moreover, there is no reason to test the delayed incentive model for retailers since it is common sense that delayed payment will be less effective, and will likely impose a greater paperwork burden on all involved, therefore **only** the instant incentive model should be implemented.

A second outstanding issue regarding this pilot is whether it will be adequately publicized outside of the retail store itself. If the financial incentive for retailers to participate is the potential for new and increased store traffic, and thus increased overall sales, then TRC must commit to advertising outside of the retailer to generate this additional store traffic.

5. For multi-family housing development managers, school districts, universities and colleges, and hotels/motels, TRC does not propose any monetary incentives. And the proposed non-monetary incentives are virtually meaningless, such as acknowledgement on some collection site webpage. We had anticipated in the 90 days TRC had to prepare the proposed Pilot Project, TRC would have conducted initial outreach to these Potential Program Participant categories, and obtained information on what is needed to incentivize these entities. Unfortunately, this did not occur, and the draft interview questions TRC proposes to utilize are extremely flawed when it comes to questions regarding incentives. The questions typically lack specificity or inquire about a largely meaningless incentive approach. Accordingly, we urge DTSC to set a schedule in the Outreach and Pilot Plans for initial outreach to these entities, and then submission of monetary incentive Pilot Plans for these entities based upon the information obtained in the initial outreach. DTSC should also require substantial revision of the interview

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*The success of the state's Bottle and Can Deposit Law demonstrates the power of financial incentives to improve recycling rates.*

questions so that more useful information is obtained regarding economic drivers to encourage program participation. DTSC should also conduct its own independent inquiries of these groups to better understand possible incentive models.

6. No incentives are provided to HVAC wholesalers for participating in the program or aggressively marketing the program to its HVAC contractor customers, nor are any incentives proposed to HVAC contractors returning their thermostats to wholesalers. The lack of wholesaler participation is a significant contributor to lack of program access, and needs to be rectified. The Pilot Plan should investigate what drivers are needed to aggressively promote the program at wholesalers, and propose incentives by a specified date addressing both HVAC contractor and wholesaler elements.

Respectfully submitted,

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## APPENDIX A

### NRDC Preliminary Analysis of TRC 2015 California Mercury Thermostat Collection Results<sup>1</sup>

1. TRC collected 18,260 thermostats in California during 2015, a 9.5% decrease versus 2014 (p. 44).
2. The California mercury thermostat regulatory collection goal for 2015 is 113,850, thus TRC collected about 16% of what California law requires.
3. There are many thermostats left to collect. In TRC's contractor survey, 62% of contractors indicated more than 25% of the thermostats they replaced contained mercury; 26% of contractors surveyed indicated more than half were mercury (Appendix 16).
4. The program as presently operated is headed in the wrong direction because it devotes insufficient time and attention to contractors, virtually ignores retailers and other potential program participants (and the public), and does not provide a sufficient financial incentive to attract program participants.
5. Only 200 thermostats were returned from retailers in California during 2015 (p. 2). For comparison purposes, the TRC program in Maine collected 2,376 thermostats from retailers during 2015.<sup>2</sup> Maine has a population of about 1.3 million people, and 86 active thermostat collection locations in the state, compared to 284 active locations in California with about 28 times the population.<sup>3</sup> The absence of participating retailers is a major reason for limited access to the program in California.
6. According to TRC's own survey of technicians, 28% of technicians surveyed dispose of mercury-containing thermostats in "hardware stores" at least "sometimes", and 10% rely on hardware stores most of the time or always (see Appendix 16). Yet virtually no outreach was conducted to retailers in 2015, and no significant enhancement is yet proposed by TRC for 2016.

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<sup>1</sup> References in parenthesis refer to TRC's 2015 Annual Report for California, dated March 30, 2016, available at [http://www.thermostat-recycle.org/files/uploads/2015\\_CA\\_State\\_Annual\\_Report\\_FINAL.pdf](http://www.thermostat-recycle.org/files/uploads/2015_CA_State_Annual_Report_FINAL.pdf).

<sup>2</sup> See TRC 2015 Report for Maine, page 3, available at [http://www.thermostat-recycle.org/files/uploads/2015\\_ME\\_Annual\\_Report\\_FINAL.pdf](http://www.thermostat-recycle.org/files/uploads/2015_ME_Annual_Report_FINAL.pdf).

<sup>3</sup> See TRC 2015 Report for Illinois, Appendix 15, available at [http://www.thermostat-recycle.org/files/uploads/2015\\_IL\\_State\\_Annual\\_Report\\_FINAL.pdf](http://www.thermostat-recycle.org/files/uploads/2015_IL_State_Annual_Report_FINAL.pdf).

7. TRC conducted virtually no site visits in 2015 targeting HVAC contractors, large or small (see Appendix 10). Phone calling was similarly missing (Appendix 9). TRC claims site visits do not translate to collection results, but draws these conclusions based on wholesaler visit data (p. 57). This wholesaler analysis is irrelevant for contractors, since wholesalers simply aggregate thermostats contractors collect, and thus cannot directly influence collection performance the way contractors can. Moreover, many large contractors do not shop at wholesalers, thus the wholesaler data would not take into account these contractors.
8. TRC's site visits were predominately to existing wholesaler participants, thus no site visits were conducted with program expansion to contractors (or anyone else) in mind (p. 28). TRC's limited contractor postcard mailing excluded contractors with more than ten employees (pp. 7-8). It would appear TRC's contractor personal outreach largely consisted of one phone call to one trade association in February 2015, with no follow-up activity (p. 30).
9. TRC acknowledges contractor business policies affect technician behavior toward recycling thermostats (p. 35), but then fails to respond with a personal outreach effort.
10. TRC's proposed 2016 goals and program modifications thus far are largely cut and paste text which can be found in other state reports (pp. 64-68). TRC proposes virtually nothing unique to California or indicative of the huge collection deficit under California law.
11. In the state-by-state comparison TRC provides, the two states with meaningful financial incentives (Maine, Vermont) have a per capita collection rate of 34.3 (per 10,000 residents) and 31.9, compared to 4.7 in California (Figure 3.5). These data demonstrate the large positive impact of a significant financial incentive.
12. TRC's financial incentive program in states other than Maine and Vermont is so inconsequential that key wholesalers declined to participate.<sup>4</sup> Why should they, for an incentive of only \$1.00 per thermostat that must be used to buy a sandwich at Subway (\$5 for 5)?
13. Total financial incentives amounted to just over \$12,597 in California during 2015 (Exhibit 26), a paltry sum given TRC's deficit in meeting the regulatory collection goals. For comparison purposes, incentive payments in Maine during 2015 totaled \$17,495.00.<sup>5</sup>

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<sup>4</sup> See e.g., TRC 2015 Report for Illinois, p. 24.

<sup>5</sup> TRC 2015 Report for Maine, Exhibit 29.

## APPENDIX B

### HVAC/General Contractor Qualitative Interview Questions

#### Introductory discussion

Before we get started, I'd like to reiterate that what we discuss today will be entirely anonymous.

1) [Generally, regarding awareness about mercury thermostats...]

a. Roughly how many thermostats have you worked on in the months of January through March of this year? How many of those were mercury containing thermostats?

b. Roughly how many years have you been in the contracting or maintenance line of work?

c. Would you say you have seen a decline, increase or about the same number of mercury containing thermostats in the months of January through March over the last five years?

2) What did you do with the mercury containing thermostat the last time you replaced it?

a. Is there a program or procedure in place at your work to inform your co-workers about proper disposal of hazardous waste materials?

i. Are mercury containing thermostats part of that discussion?

b. Who in your organization is in charge of making sure hazardous waste materials are disposed of properly by your coworkers?

i. What is the title of their position?

c. Before taking this survey, how important was the proper disposal of mercury containing thermostats to you? Please state on a scale of 1 to 9 with 1 being very unimportant, 5 being somewhat important and 9 being very important.

i. Please explain how you came about your score.

d. In your opinion, how important is the proper disposal of mercury containing thermostats to others? Please state on a scale of 1 to 9 with 1 being very unimportant, 5 being somewhat important and 9 being very important.

i. Please explain how you came about your score.

e. Before taking this survey, how important was the proper disposal of mercury containing thermostats to your organization? Please state on a scale of 1 to 9 with 1 being very unimportant, 5 being somewhat important and 9 being very important.

i. Please explain how you came about your score.

f. In your opinion, how important is proper disposal of mercury containing thermostats at other contracting businesses? Please state on a scale of 1 to 9 with 1 being very unimportant, 5 being somewhat important and 9 being very important.

i. Please explain how you came about your score.

3) [skip if self-employed contractor]

a. If we created an informational brochure or email concerning the proper disposal of hazardous waste materials, would you be willing to distribute it to your coworkers?

i. What would motivate your organization to distribute informational brochures or emails?

ii. What are some potential drawbacks to distributing informational brochures or emails to your coworkers that your organization would have to take into consideration?

iii. Would you need approval from someone in order to do so?

1. What is that person's position title?

**Comment [WU1]:** No distinction between large and small contractors; a big error due to how businesses are conducted, including where they buy thermostats, their relationship to manufacturers, and whether they can obtain their own TRC collection box. SGA admits they lack information on where large HVAC contractors buy their thermostats, but proposes no questions to rectify this.

**Comment [WU2]:** Not clear who is asked these questions, contractor management or technicians. Combining results may not be helpful.

**Comment [WU3]:** These questions are useless. The period in question is likely not the season where the majority of change-outs occur, thus answer will not contribute to understanding of how many are out there. Then, even if we stipulate there are less than five years ago, so what? Lastly, in the Skumat studies in California and elsewhere, the data collected from contractors on this issue was highly variable and thus not helpful.

**Comment [WU4]:** Does not start with the basics – do they know if they have a mercury thermostat? How?

**Comment [WU5]:** Asking contractors whether they are violating the law is not likely to produce useful or candid results. Moreover, given the complete lack of questions regarding financial incentives, it is very unclear how these answers lead to concrete proposals as part of the outreach plan.

**Comment [WU6]:** Ask about information sources they use, sources they trust, what sources are used to develop policy, what their company and bosses use

**Comment [A7]:** These questions border on irrelevance and conjecture, esp. in reference to other businesses. The bottom line should be that once it is established that the survey taker either did or did not know about proper disposal of mercury thermostats, the questions should focus on what they need to comply with the rules and participate in the program. Ask about the most convenient disposal options (in-house bin, other outlet within specific number of miles, etc.), incentives, travel and transport, proper handling, etc. Also ask about barriers to compliance.

**Comment [A8]:** If you ask about motivation "to do the right thing" and barriers, the questions shouldn't skip self employed contractors.

**Comment [A9]:** Instead ask what type of information is needed for the contractor and/or their employees? Brochures, email alerts, etc. What does it need to include (info about Hg? What the law says? Or simply where to take them and incentives?)

- a. Given your experience as a contractor, would you say that I would get a similar answer from other contracting businesses?
- iv. Who within your organization is in charge of training maintenance personnel concerning topics such as disposal of hazardous waste materials?
  - 1. Given your experience as a contractor, would you say that I would get a similar answer from other contracting businesses?

**Comment [A10]:** Not reliable info and unnecessary

4) [Motivators and barriers...]

**Comment [A11]:** See previous comments about asking more specific questions about how thermostats are handled and challenges needed to be overcome by incentives

- a. What factors motivate your organization to recycle mercury containing thermostats?
  - i. Of the factors you mentioned, which factor motivates your organization the most?
- b. What factors makes recycling mercury containing thermostats difficult for your organization?
  - i. Of the factors you mentioned, which factor makes recycling mercury containing thermostat the most difficult?
- c. Do you suspect that the process of recycling mercury containing thermostats will be inconvenient for your organization? Please state on a scale of 1 to 9 with 1 being very inconvenient, 5 being somewhat inconvenient and 9 being very convenient.
  - i. Why or why not?
  - ii. Do you suspect it will be time-consuming?
    - 1. What would make it time-consuming?
- d. Before speaking with me, were you aware that you could dispose of mercury containing thermostats at a household hazardous waste center or a participating retailer, wholesaler, or contracting business?
  - i. Which of the four options were you unaware of?

**Comment [WU12]:** Too vague to be useful. For large contractors, no questions related to where they buy their thermostats, how they are incentivized in their thermostat purchasing programs, how returning mercury thermostats should be combined with existing purchasing programs to maximize collections, the price points needed to maximize collections, etc. This survey should account for very little when shaping the incentive pilots for contractors.

**Comment [A13]:** Don't put thoughts into their heads. Let them tell you barriers.

**Comment [WU14]:** This question is extremely misleading, since HHW and retailer collections are not in reality available in CA, and contractor participation has been unpublicized and is limited to firms with 7 or more technicians.

5) [About you and mercury thermostat recycling...]

- a. What is your ethnicity?
- b. What is your age?
- c. Before taking this survey, were you aware that mercury containing thermostats are required to be only disposed in participating recycling locations?
  - i. Do your superiors know about this?
  - ii. Do your maintenance personnel know how to identify mercury containing thermostats?
  - iii. Do your maintenance personnel know how to properly dispose of mercury containing thermostats?
- d. How harmful is mercury exposure? Please state on a scale of 1 through 9 with 1 being very toxic, 5 being somewhat toxic and 9 being very safe.

**Comment [A15]: Do not ask this question.** It can be offensive and turn off prospective participants. In addition, workers are not supposed to be asked questions like this in relation to their jobs. Nor is it necessary. A person's ethnicity is not important here. What is ensuring they understand how to dispose of mercury thermostats. It would be appropriate to ask in what languages should information about why proper disposal is necessary and how to participate in the TRC collection program be in.

**Comment [A16]:** What is this appropo of?

**Comment [A17]:** This should be at the beginning, as indicated by the comments above.

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**TRC Retailer Focus Group**

**Comment [WU1]:** In terms of the pilot, this questionnaire can be used for local independent retailers, but also need to make contact with state corporate offices of chains early on.

Before we get started, I'd like to reiterate that what we discuss today will be entirely anonymous.

The Thermostat Recycling Corporation (TRC) is a non-profit organization that facilitates and manages the collection and proper disposal of mercury containing thermostats. TRC is aiming to increase the number of collected mercury containing thermostats this year and is actively looking for organizations to aid in this effort.

1.

- a. **Would you be willing to partner in the mercury recycling effort by becoming a collection site? A small amount of paperwork would be involved initially to become a collection center. A bin would be sent to your store for the purpose of collecting mercury containing thermostats. The cost of shipping the bin of mercury containing thermostats will be covered.**
  - i. Why or why not?
  - ii. What are the potential positives of this action for your organization?
  - iii. What are the potential negatives of this action for your organization?
  - iv. Having weighed the positives and negatives, are you likely, neutral, or unlikely to be part of this initiative?
  - v. What can be changed about this initiative to negate some of the potential negatives you discussed from our side.
  - vi. Would you need approval from someone in order to be part of this program?
    - 1. What is that person's position title?
  - vii. Given your experience in your organization, would you say that I would get a similar answer from other locations of your organization to these questions?
  - viii. Where would you place such a bin?
    - 1. Would space or workplace protocol be a potential issue?
  - ix. If the recycling bin and service had an initial fee of \$25, how much would that impact your decision to participate in becoming a collection center?

**Comment [D2]:** Question is not would you be willing. Question is what technical, financial, and other assistance would you need from the thermostat manufacturers to participate? Be specific. Discuss possible models.

2.

- a. **Would you be willing to have shelf talkers in the thermostat department concerning proper disposal of mercury containing thermostats?**
  - i. Why or why not?
  - ii. What are the potential positives of this action for your organization?
  - iii. What are the potential negatives of this action for your organization?
  - iv. Having weighed the positives and negatives, are you likely, neutral, or unlikely to be part of this initiative?
  - v. What can be changed about this initiative to negate some of the potential negatives you discussed from our side?

**Comment [WU3]:** – Start with “does your company currently have / allow shelf talkers? Are they doing this with other products, like paint? Are they effective / do people mention them / do they use them”? Something like that before jumping in.

- vi. Would you need approval from someone in order to be part of this program?
    - 1. What is that person's position title?
  - vii. Given your experience in your organization, would you say that I would get a similar answer from other locations of your organization to these questions?
- 3.
- a. Would you be willing to be a partner in a store-based raffle contest that would provide a raffle ticket to each customer that brings in a mercury thermostat for recycling?
    - i. Why or why not?
    - ii. What are the potential positives of this action for your organization?
    - iii. What are the potential negatives of this action for your organization?
    - iv. Having weighed the positives and negatives, are you likely, neutral, or unlikely to be part of this initiative?
    - v. What can be changed about this initiative to negate some of the potential negatives you discussed from our side
    - vi. Would you need approval from someone in order to do be part of this program?
      - 1. What is that person's position title?
    - vii. Given your experience in your organization, would you say that I would get a similar answer from other locations of your organization to these questions?
4. By becoming part of our outreach effort, we can promote your store on our informational literature and social media endeavors. The outreach effort will target contractors and maintenance personnel county wide.
- a. On a scale of 1 to 9, 1 being very ineffective, 5 being neutral and 9 being very effective, how enticing is this proposal to your organization?
    - i. Please explain how you came to your score.
5. How important is the proper disposal of mercury containing thermostats to you personally? Please state on a scale of 1 to 9 with 1 being very unimportant, 5 being somewhat important and 9 being very important.
- a. Please explain how you came about your score.
6. In your opinion, how important is the proper disposal of mercury containing thermostats to others? Please state on a scale of 1 to 9 with 1 being very unimportant, 5 being somewhat important and 9 being very important.
- a. Please explain how you came about your score.

**Comment [D4]:** Incentive questions are limited to one vague and likely meaningless raffle incentive model, with unknown payouts, and significant complexity due to need to retain raffle entries. No questions related to the pilot actually proposed. No meaningful questions on what drives customer behavior, what is price point needed to motivate customer and retailer participation, how to design an incentive program to minimize retailer burden, example of incentive programs retailers conduct themselves to change customer behavior and how they are designed to minimize burden, how thermostat manufacturers incentivize retailers regarding thermostat purchases, how collections could be could be integrated into such incentive programs, etc. We note the DIY survey suffers from the same shortcomings, so there is little useful information from either the customer or the retailer side.

**Comment [5]:** the answer might be irrelevant at a state level, and pilot only proposed for one city.

**Comment [A6]:** Superfluous. Esp. if this person works for a big chain.

7. In your opinion, how important is the proper disposal of mercury containing thermostats to others? Please state on a scale of 1 to 9 with 1 being very unimportant, 5 being somewhat important and 9 being very important.
  - a. Please explain how you came about your score.
8. Before taking this survey, how important was the proper disposal of mercury containing thermostats to your organization? Please state on a scale of 1 to 9 with 1 being very unimportant, 5 being somewhat important and 9 being very important.
  - a. Please explain how you came about your score.
9. In your opinion, how important is proper disposal of mercury containing thermostats to other home improvement retail companies? Please state on a scale of 1 to 9 with 1 being very unimportant, 5 being somewhat important and 9 being very important.
  - a. Please explain how you came about your score.

**Comment [WU7]:** To who? Their bosses, their customers, their families?

**Comment [A8]:** Unreliable information.

10. How many years have you worked in your current organization?
11. What is your ethnicity?
12. What is your age?

**Comment [A9]:** Do not ask these questions. Esp. since these are employees of a store or major chain which cannot ask such questions. Limit question to what languages would information be needed in for both employees and for customer base (ie the shelf talkers).

## TRC Property Managers of Multifamily Housing Focus Group

1.
  - a. If a thermostat needs to be replaced at one of your properties, who would be responsible for that?

**If all HVAC related work is outsourced:** I'd like to thank you again for participating with us. Unfortunately we are currently interested in the recycling habits of organizations that handle HVAC work internally.

- i. What is the title of the person in this position?
    - ii. How many of these workers do you employ?
      1. How many employees do you have in total?
    - iii. Is there a common ethnicity amongst your maintenance personnel?
      1. About what percentile of your maintenance personnel is X?
      2. In what language are these personnel most comfortable speaking?

**Comment [A1]:** Inappropriate question as phrased. Instead, when you get into the need for information about properly disposing of thermostats and program participation, ask about language needs.

2.
  - a. What did your maintenance personnel do with the mercury containing thermostat the last time they replaced one?

- i. Is there a company program or procedure in place to inform maintenance personnel about proper disposal of hazardous waste materials?
      1. Are mercury containing thermostats part of that discussion?
    - ii. Who in your organization is in charge of making sure hazardous waste materials are disposed of properly by your maintenance personnel?
      1. What is the title of their position?
    - iii. Before taking this survey, how important was the proper disposal of mercury containing thermostats to you? Please state on a scale of 1 to 9 with 1 being very unimportant, 5 being somewhat important and 9 being very important.
      1. Please explain how you came about your score.
    - iv. In your opinion, how important is the proper disposal of mercury containing thermostats to others? Please state on a scale of 1 to 9 with 1 being very unimportant, 5 being somewhat important and 9 being very important.
      1. Please explain how you came about your score
    - v. Before taking this survey, how important was the proper disposal of mercury containing thermostats to your organization? Please state on a scale of 1 to 9 with 1 being very unimportant, 5 being somewhat important and 9 being very important.
      1. Please explain how you came about your score.

**Comment [WU2]:** Starts from the wrong place. Do they even know whether a thermostat contains mercury? How do they know? Then need to understand where they buy new and replacement thermostats, when thermostats are changed out, whether all thermostats are changed out at once, how old are the thermostats currently in place and were they ever changed out, who makes the decisions, how much time goes into planning the change-outs, etc. The way these questions are constructed, not much will be learned.

**Comment [A3]:** Many multi-family dwellings are run by a small team of workers or one person. So keep that in mind when asking about titles etc.

**Comment [A4]:** Ask instead about awareness of the importance and then get into what will allow them to do the right thing and what might hamper them.

**Comment [A5]:** Let people answer for themselves, their companies, their workers, or team. Not this vague "others". How would they even know?

- vi. In your opinion, how important is proper disposal of mercury containing thermostats to other property management companies of multi-family

**Comment [A6]:** Unreliable information and not pertinent.

housing? Please state on a scale of 1 to 9 with 1 being very unimportant, 5 being somewhat important and 9 being very important.

1. Please explain how you came about your score.

3.

a. If we created an informational brochure or email concerning the proper disposal of household hazardous materials, would you be willing to distribute it to your maintenance personnel and why or why not?

~~i. What would motivate your organization to distribute an informational brochure or email to your maintenance personnel?~~

~~ii. What are potential drawbacks to distributing an informational brochure or email to your maintenance personnel that your organization would consider before taking such action?~~

~~iii.i. Would you need approval from someone in order to do so?~~

~~1. What is that person's position title?~~

~~a. Given your experience in the property management business, would you say that I would get a similar answer from other property management companies?~~

~~iv.ii. Who within your organization is in charge of training maintenance personnel concerning topics such as disposal of hazardous waste materials?~~

b. What factors motivate your organization to recycle mercury containing thermostats?

i. Of the factors you mentioned, which factor motivates your organization the most?

c. What factors makes recycling mercury containing thermostats difficult for your organization?

i. Of the factors you mentioned, which factor makes recycling mercury containing thermostats the most difficult?

d. Do you suspect that the process of recycling mercury containing thermostats will be inconvenient for your organization? Please state on a scale of 1 to 9 with 1 being very inconvenient, 5 being somewhat inconvenient and 9 being very convenient.

i. Why or why not?

ii. Do you suspect it will be time-consuming?

1. What would make it time-consuming?

e. Before speaking with me, were you aware that your maintenance personnel could dispose of mercury containing thermostats at a household hazardous waste center or a participating retailer, wholesaler or contracting business?

i. Which of the four options were you unaware of?

**Comment [A7]:** Prefer a question that focuses on the type of info needed and how it would best be presented for the survey taker and their team/employees/company. Here you can also ask about language.

**Comment [WU8]:** Vague and useless set of incentive questions, particularly when existing questions do not produce info on the decision-making process. There should be questions on what they need to comply with proper disposal, convenience of disposal options, handling instructions, and how monetary incentives may be useful etc. This may go after the following section focus on what would interfere or make compliance or participation more difficult. This gives you a way of figuring out how to overcome obstacles.

**Comment [A9]:** Don't put ideas into their heads. Let them tell you what the obstacles are.

**Comment [WU10]:** Again, misleading, since currently not true in CA

4.

- a. Do you have experience working in other multi-family property management companies besides your current one?
  - i. If so, how many years?
- b. How many years have you been a property manager at your current organization?
- c. Roughly how many living units (an apartment or house for use by one family) do you manage?
  - i. Do any of the properties you currently manage use mercury containing thermostats?
  - ii. Can you roughly estimate the percentage of living units that use mercury containing thermostats?
- d. Would you say there has been a decline, increase or about the same number of mercury containing thermostats within the properties you manage or have managed in the last five years?
  - i. Would you say that is the dominant trend in property management companies across California?
- e. What is your ethnicity?
- f. What is your age?
- g. Before taking this survey, were you aware that mercury containing thermostats are required to be only disposed in participating recycling locations?
  - i. Do your superiors know about this?
  - ii. Does your maintenance personnel know how to identify mercury containing thermostats?
  - iii. Does your maintenance personnel know how to properly dispose of mercury containing thermostats?

**Comment [WU11]:** No questions about information sources for them or decisionmakers

**Comment [WU12]:** Do they have non-programmable thermostats? If yes, do they know whether they contain Hg? How do you know this?

**Comment [WU13]:** Have you established they know how to answer this question. Most people can't without opening the thermostat up.

**Comment [WU14]:** First, they are extremely unlikely to know. Second, if declining, so what? How many are left, and how would they know?

**Comment [WU15]:** How would they know this? This question is highly questionable; on what basis is the answer provided?

**Comment [A16]:** NO. This is inappropriate and will turn many people off. Ask about language needs, not ethnicity.

**Comment [A17]:** Why does this matter? If they are in a position to dispose of a thermostat, we need them to do so.

**Comment [A18]:** Put this up above after you've established if they can differentiate thermostats. If it requires opening them up, it may be necessary to encourage them to simply take it to a TRC bin.

**Comment 2**

**From:** [Ryan Kiscaden](#)  
**To:** [Thermostats@DTSC](mailto:Thermostats@DTSC)  
**Subject:** DTSC Comments - Mercury Thermostat Outreach and Pilot Project Plans  
**Date:** Friday, June 03, 2016 9:58:59 AM  
**Attachments:** [FINAL - DTSC Comments Coalition Letter.pdf](#)

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To whom it may concern,

Please find attached a letter regarding the Mercury Thermostat Collection Program – Manufacturer’s Outreach and Pilot Project Plans on behalf of ACCA, AHRI, HARDI, Johnstone Supply, NEMA, R.E. Michel and United Refrigeration.

Regards,

**Ryan L Kiscaden**

*Executive Director*

Thermostat Recycling Corporation

**P.** 571.302.0877 | **F.** 703.852.7202

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June 3, 2016

Renee Avila  
Department of Toxic Substances Control  
P.O. Box 806  
Sacramento, CA 95812-0806

RE: Mercury Thermostat Collection Program – Manufacturer’s Outreach and Pilot Project Plans

Dear Ms. Avila,

The undersigned organizations support the Outreach Plan and Pilot Project plan submitted by the Thermostat Recycling Corporation (TRC), which were recently released for public comment by the Department of Toxic Substances Control (DTSC).

We support the plans outlined in TRC’s submittal to DTSC because together they:

- Meet the requirements and deadlines of the Consent Order;
- Attempt to test the ability to increase collection of mercury thermostats (Pilot Plan);
- Attempt to test the ability to increase collection sites (Outreach Plan); and,
- Most importantly, the activities described within these plans will provide insight and data concerning the type of program refinements that will aid in achieving the state’s ambitious collection goals.

We the undersigned organizations, respectfully urge DTSC to approve both the Outreach Plan and the Pilot Project Plan that was submitted to DTSC on May 10, 2016 as written with no further modifications.

For any questions regarding this letter, please contact Mark Kohorst at [Mar\\_Kohorst@nema.org](mailto:Mar_Kohorst@nema.org).

Sincerely,

ACCA, the Indoor Environment and Energy Efficiency Association  
*Todd Washam*

Air Conditioning and Refrigeration Institute (AHRI)  
*Cade Clark*

Heating, Air-conditioning & Refrigeration Distributors International (HARDI)  
*Jon Melchi*

Johnstone Supply  
*Jeff Schultz*

National Electrical Manufacture Association (NEMA)

*Mark Kohorst*

R.E. Michel Company, LLC

*Gene Winters*

United Refrigeration, Inc.

*Rich Rosen*