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Clean Energy Incentive Program Design Details
Docket ID No. EPA–HQ–OAR–2016–0033

Comments Respectfully Provided By:
Home Performance Coalition[1]

September 28, 2016

Thank you for the opportunity to submit these comments on EPA's Proposed Rule on the Clean Energy Incentive Program (CEIP) Design Details[2] on behalf of the Home Performance Coalition (HPC),[3] a non-profit 501c3 that advances policy change through policymaker education, stakeholder engagement, research, trainings and conferences for companies, businesses and other stakeholders in the home performance industry.

HPC is pleased that three other home performance industry leaders have joined us in submitting these comments: the Building Performance Institute (BPI),[4] The Energy & Environmental Building Alliance (EEBA),[5] and Efficiency First (EF).[6]

The Home Performance Coalition and our industry partners greatly appreciate EPA's continued efforts to finalize and provide guidance on all aspects of the CPP, including the CEIP. The CEIP Proposed Rule provides an important opportunity to gain additional

[1] These comments are being submitted on behalf of the Home Performance Coalition. They do not reflect the views of any individual member of the organization's board, nor do they reflect the views of associations or companies at which those Board members work.

[2] Clean Energy Incentive Program Design Details, Proposed Rule. RIN 2060-AS84. 81 FR 42939. Herein referred to as "CEIP Proposed Rule."

[3] The Home Performance Coalition (HPC) is a non-profit 501c3 that advances policy change through policymaker education, stakeholder engagement, research, trainings and conferences for companies, businesses and other stakeholders in the home performance industry. For more information, visit: www.homeperformance.org

[4] The Building Performance Institute is the nation's premier credentialing, quality assurance and standards setting organization for home performance professionals. For more information, visit: http://www.bpihomeowner.org

[5] The Energy & Environmental Building Alliance (EEBA) delivers unique and relevant, multi-platform educational resources with the intention to manifest sustainable and responsible building principles in the design, marketing and execution of the building process. For more information, visit: http://www.eeba.org/

[6] Efficiency First (EF) supports home performance companies by providing an impactful voice in Washington, access to new educational and networking opportunities, and discounts on products and services. With state and local chapters, EF advocates for policies that accelerate the growth of the industry, creating huge opportunities for companies and delivering meaningful energy savings to homeowners. For more information, visit: www.efficiencyfirst.org

clarity and further improve this important aspect of the CPP, and HPC strongly supports this continued dialogue between EPA and interested stakeholders.

We applaud the Administration for recognizing the additional benefits of energy efficiency and the need to incentivize energy efficiency within the context of the Clean Power Plan (CPP). While energy efficiency is the quickest, cleanest, and cheapest means of addressing America's CO_2 emissions, the up-front costs associated with making these advanced investments leave most of the energy efficiency potential untapped. In fact, according to the American Council for an Energy-Efficient Economy (ACEEE), homeowners can save 25–35% on their energy bills over the next fifteen by "implementing cost-effective efficiency improvements."[7] With 36% of America's electricity use in the residential sector,[8] it is imperative that the reduction of residential energy consumption be a part of CPP compliance pathways.

The Home Performance Coalition's previous comments submitted on the CEIP[9] provided the following:

I) Recommendation for how EPA should distribute "matching" allowances or ERCs under the CEIP to recognize energy efficiency as an equivalent resource with renewable energy;
II) Recommendation that EPA adopt a broad definition of "low-income communities";
III) Recommendation that EPA expand types of energy efficiency resources that are eligible for the CEIP;
IV) Clarification request and recommendation regarding the use of the CEIP for states under a mass-based federal plan for CO_2 reductions; and
V) Recommendations regarding the EM&V requirements for eligible projects, particularly in states choosing a mass-based approach to CPP compliance.

In the below comments on the CEIP Proposed Rule, we will expand upon each of those original comments, some of which were addressed in the CEIP Proposed Rule and some of which warrant additional comment. We will also provide comments on a few of the new aspects laid out in the CEIP Proposed Rule. We respectfully urge EPA to carefully consider these recommendations to ensure that residential energy efficiency receives due consideration in the CEIP.

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[7] "America's Abundant, Untapped Energy Efficiency Resource." American Council for an Energy Efficient Economy (ACEEE). March 21, 2011. http://aceee.org/sites/default/files/pdf/fact-sheet/Basic%20EE%20Fact%20Sheet.pdf

[8] *Annual Energy Outlook 2015 with Projects to 2040.* U.S. Energy Information Administration. April 2015. Page A-18, Table A-8 notes 1,391 billion kilowatt hours (kwh) in residential electricity consumption out of 3,836 billion kwh in total electricity consumption in 2013 (the real date of the report).

[9] Comments submitted on behalf of the Home Performance Coalition and Efficiency First (December 15, 2015) available at: http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2015-0734-0075

I) Recommendation for how EPA should distribute "matching" allowances/ERCs under the CEIP to recognize energy efficiency as an equivalent resource with renewable energy.

In our previous comments on the CEIP, we recommended a distribution of matching pool ERCs/allowances that adequately recognizes energy efficiency as an equivalent resource with renewable energy. We cited a recent report from the International Energy Agency which found that $300 billion was spent on energy efficiency in 2011 by companies and governments in 11 countries – an investment that saved *more* in CO_2 emissions than all spending on renewables.[10] The report also found that the energy savings achieved through energy efficiency in those 11 countries since 1974 is now equivalent to two-thirds of annual consumption. In this study, energy efficiency showed the largest percentage improvement in the residential sector, where energy usage was reduced by an absolute 5% from 2001 levels among the countries analyzed.

Given the importance of energy efficiency in reducing CO_2 emissions, it is essential that it be valued as an equivalent resource within the context of the CEIP. EPA's proposed addition of solar renewable energy projects as eligible low-income community projects under the CEIP, coupled with the proposed 50/50 split of matching pool ERCs/allowances and the fact that energy efficiency projects implemented outside of low-income communities are not eligible for single matching credits, effectively serves to marginalize energy efficiency as a resource for meaningful CO_2 emissions reductions.

Adding solar to the low-income community project bucket without increasing the matching pool distribution, carving out a set-aside specifically for energy efficiency projects, or requiring that energy efficiency be undertaken prior to solar improvements in low-income communities will significantly disadvantage energy efficiency as the most cost-effective resource for CO_2 emissions reductions and will undermine EPA's goal of bringing the maximum amount of benefit to low-income communities in both the short- and long-term. As such, we urge EPA to:

- *allow residential energy efficiency projects implemented outside, or not to the benefit of, low-income communities, to be eligible to receive single matching credits, just as renewable energy projects receive the matching credit;*
- *increase the number of allowances/ERCs provided to the low-income community projects from 2 credits to 5 credits; and*
- *require that minimum, cost-effective energy efficiency upgrades be undertaken prior to the use of on-site renewable generation to ensure the clean power is maximized.*

As EPA acknowledges, the extension of the wind and solar tax credits in December 2015, as well as the May 5, 2016 IRS guidelines extending the Production Tax Credit (PTC)

[10] *Energy Efficiency Market Report 2014, Executive Summary*. OECD/IEA. 2014 https://www.iea.org/Textbase/npsum/EEMR2014SUM.pdf

Continuity Safe Harbor from 2 years to 4 years, will have a significant positive impact on the development of wind and solar projects that commence commercial operation in 2020 onward. Currently there are no federal or state tax credits or incentives that could have a similar positive effect on energy efficiency projects, despite the saving of a kilowatt (or providing a "negawatt") having the same impact to replacement of carbon generating power and that energy efficiency faces similar upfront cost challenges that hinder the purchase of high efficiency technology. About half of a home's energy use is for heating and cooling, but 80% of the time the replacement of these expensive systems is undertaken at the time of breakage. Inevitably, the air conditioning is out in July or the furnace quits in January – when homeowners have little time to find the most efficient systems and undertake the insulating needed to properly size their equipment. In addition, homeowners are often faced with a large unexpected bill, pressing them to find the cheapest systems. This upfront and immediate cost issue must be addressed to truly maximize residential energy efficiency, and EPA misses an important opportunity by not allowing states to provide additional clean energy incentives for all homeowners so that they are motivated to undertake envelope, fenestration, and system efficiency replacements as a means of reducing energy use. In addition, the need to help all homeowners, low-income or not, address any rate impacts from the CPP is critical to the program's acceptance. It is important that EPA take this into consideration as it makes a final determination of how to distribute the federal matching pool, as solar and wind projects will almost certainly continue to expand significantly without the help of CEIP-related incentives, while energy efficiency projects will not have the opportunity to benefit from similar, significant federal incentives.

As you may know, the American Council for an Energy-Efficiency Economy (ACEEE) estimates that even with a $35-per-ton allowance price, the value of the CEIP incentive awarded to a single-family home would be less than 2% of the total project cost.[11] This financial incentive is unlikely to motivate the large increase in program participation necessary to fully take advantage of the 150 million matching allowances available in the low-income pool. EPA estimates that the energy savings potential from eligible low-income demand-side EE projects could reach up to 39 million MWh, with 15 million MWh from potential solar projects implemented in low-income communities in 2020 and 2021 combined.[12] In total, this represents approximately 15% of the total allowances or ERCs available to states in EPA's matching pool. This means that out of the 150 million matching allowances available to eligible projects in the low-income pool, more than 100 million allowances would be retired. Thus, the number of allowances or ERCs issued to residential demand-side energy efficiency in low-income households could be tripled for both energy efficiency and renewable energy and still remain within the limit available. As a result, the Home Performance Coalition believes

[11] L. Ross and S. Hayes, *Assessing the Potential for Energy Efficiency in Low-Income Households under the Clean Power Plan* (ACEEE, 2016). aceee.org/files/proceedings/2016/data/index.htm.

[12] This represents 54 million out of 187.5 million matching ERCs, or 43 million out of 150 million matching allowances, due to the conversion factor of 1 ERC = 0.8 allowance. [ACEEE Analysis, 2016 CEIP Comments]

it is conservative to recommend 5 rather than 2 allowances/ERCs be provided per ton of emissions reductions for energy efficiency projects in the low income portion of the CEIP. There still would be substantial retirements and the integrity of the CEIP and CPP would be maintained while achieving the goal of more efficient homes in the low-income regions of America where the cost of energy can be least absorbed.

In addition to the inequities that exist in the realm of federal and state tax credits and incentives, it is short-sighted to encourage solar projects in low-income communities that have not already undergone energy efficiency improvements. There are many reasons why energy efficiency measures should be implemented prior to the installation of solar panels. When performed before solar installations, energy efficiency upgrades – particularly those related to insulation and building envelope measures – can significantly decrease the overall energy demand of the home/building. With energy demand reduced, the size of the solar installation needed on that particular home/building will also be reduced, thus decreasing overall costs and providing more comfort to the occupants. Energy efficiency upgrades also bring more immediate and longer-lasting impacts on consumers' energy bills, which is particularly important for consumers in low-income communities. *Simply put, providing valuable federal ERCs/allowances for solar generation to power incandescent light bulbs and inefficient air conditioners that send cooled air out leaks in a poorly insulated or weatherized house is just poor public policy.* As such, we urge EPA – within the context of the CEIP – to prohibit solar installations on any commercial or residential building in a low-income community that is not already considered energy efficient. This will serve to encourage energy efficiency projects prior to solar installations and will greatly increase the cost-effectiveness and benefits of low-income community projects under the CEIP.

In light of the reasons detailed above, we strongly encourage EPA to revisit its proposed distribution of matching pool ERCs/allowances, which marginalizes and devalues energy efficiency as the most cost-effective resource for CO_2 emissions reductions. Again, we urge EPA to allow for energy efficiency and renewable energy to receive a matching ERCs/allowances for all residential applications at all household income levels. We also recommend that EPA increase the number of ERCs/allowances available for low-income community energy efficiency projects from a match of 2 to a match of 5. Finally, we recommend that EPA prohibit solar installations on any commercial or residential building in a low-income community that is not already considered energy efficient.

(II) Recommendation that EPA adopt a broad definition of "low-income communities"

In our previous comments, HPC recommended an inclusive definition of "low-income community" and flexibility for states in defining "low-income community." HPC strongly supports EPA's proposal in the CEIP Proposed Rule to not create a new or single definition of low-income community but rather provide states with the flexibility to use one or more existing state or federal definitions that best suit their specific economic

and demographic conditions.

HPC also strongly supports EPA's proposal that definitions of "low-income community" may be based on geographic areas and/or household-level income determinations. This will help to ensure that low-income households are not penalized just because they end up falling on the wrong side of a community boundary line and will also continue to fulfill the objective of providing additional credit in those places that can least afford, but most need, to lower electricity bills. It is important to remember that energy efficiency helps to make homes more affordable for the occupants and thus provides multiple benefits to society that are particularly valuable to low-income homes.

In our previous comments we also recommended that the definition of "low-income community" include low-income communities as defined by the Weatherization Assistance Program ("WAP") as well as the existing definitions from other federal and state programs. We are very pleased that EPA is proposing that the WAP definition of "low-income community" be considered presumptively approvable to be used in state compliance plans. We are also pleased at EPA's proposal that additional definitions may include those from established utility program definitions that have public utility commission (PUC) or state energy office (SEO) approval, eligibility requirements for state tax credits or incentives, or qualification for state administered benefit programs, among others. Allowing low-income households to qualify under these criteria will help to reduce additional paperwork burdens placed on low-income families, contractors, and programs, that may otherwise serve as a barrier to their accessing the benefits of energy efficiency retrofits.

We also agree with EPA's statement that it may be appropriate for states to consider factors that "impact the energy burden on low income ratepayers (e.g., disparities in median income across the state, utility prices, EJ concerns, or state median income in comparison with national median income)"[13] when contemplating definitions of "low-income communities" for the purposes of the CEIP. We believe that this will help states select a definition that maximizes the inclusions of households and communities which face significant energy burdens and spend a disproportionate amount of their income on energy costs.

We are also pleased that EPA recognizes that small businesses, organizations, and institutions that work with low-income residents often face similar energy risks (e.g., large bills, disproportionate energy spending, shutoff threats) and experience the same barriers (e.g., lack of capital, lack of expertise, split incentives for renters) as the low-income residential sector. As noted in the CEIP Proposed Rule, "high energy expenses hamper their ability to provide clients with energy, health, educational, housing, legal, and other services."[14] We support EPA's corresponding proposal that energy efficiency

[13] CEIP Proposed Rule, page 113
[14] CEIP Proposed Rule, page 133

projects designed to benefit low-income communities and ratepayers and encourage investment in demand-side energy efficiency projects for the purpose of achieving CO_2 emissions reductions may also be considered eligible under the CEIP.

We recommend that EPA further clarify that demand-side energy efficiency programs that serve a diverse range of households/communities (i.e. not necessarily dedicated solely to the implementation of demand-side energy efficiency in low-income communities) may also be eligible to receive credit under the CEIP. These programs should be required to demonstrate that a certain proportion of their projects serves low-income communities or households and should receive multiple CEIP credit for that work.

(III) Recommendation that EPA expand types of energy efficiency resources that are eligible for the CEIP

In our previous comments, we recommended that EPA allow for a wide array of demand-side energy efficiency resources – especially those implemented in the residential sector - to be eligible under the CEIP, so long as they are implemented in low-income communities and can reduce demand for electricity from the grid. We are very pleased that EPA explicitly states in the CEIP Proposed Rule that demand-side energy efficiency refers to "an extensive array of technologies, practices and measures…to reduce electricity demand while providing the same, and sometimes better, level and quality of service."[15]

We are also pleased that EPA references the Technical Support Document entitled "Demand-Side Energy Efficiency,"[16] released in conjunction with the CPP Final Rule in August 2015, which explicitly discusses a number of demand-side energy efficiency measures implemented in the residential sector, including: air and duct sealing, increased insulation in walls and attics, highly efficient equipment for heating and air conditioning (e.g., air- and ground-source heat pumps, high efficiency furnaces, etc.), and highly efficient appliances (e.g., refrigerators, television sets, etc.). These types of measures, along with other energy efficiency measures implemented in the residential sector, are crucial to keeping American housing affordable, especially for lower-income households.

We are also very pleased that EPA is proposing that states have flexibility to determine the types of demand-side energy efficiency projects they may deem eligible for CEIP awards (so long as they are implemented in communities that meet the state's approved definition(s) for "low-income community"). In addition, we fully support EPA's proposal that projects may be implemented as part of an energy efficiency program (i.e. implemented by regulated electric distribution utilities or other private providers as part

[15] CEIP Proposed Rule, page 132
[16] Available at https://www.epa.gov/cleanpowerplan/clean-power-plan-final-ruletechnical-documents

of larger programs). We believe that this flexibility – in both allowing states to define eligible energy efficiency projects and including projects implemented as part of a larger energy efficiency program - will allow for the full range of residential demand-side energy efficiency projects to be eligible under the CEIP.

To address and assist these energy efficiency efforts undertaken by the states, HPC recommends that EPA reference the Department of Energy (DOE) and EPA joint State and Local Energy Efficiency Action (SEE Action) Network and its September 2015 Residential Working Group publication "A Policymaker's Guide to Scaling Home Energy Upgrades"[17] as a resource for states to use. The SEE Action report outlines the immediate strides that states can make to significantly increase the amount of energy efficiency that can be gained from programs based on state policy changes. Many of these policies are not in place because the states and utilities do not have the incentive to reduce energy and carbon emissions. The CPP will provide the mandate, and the CEIP would create the incentive, to dramatically change the way we address residential energy efficiency.

Finally, we thank EPA for providing clarification on the definition of "projects" as it relates to demand-side energy efficiency under the CEIP. The Emissions Guidelines provide that demand-side energy efficiency "projects" implemented in low-income communities may be eligible to generate CEIP credits.[18] In the Proposed Federal Plan preamble, EPA states that demand-side energy efficiency "measures" will also be eligible. In the CEIP Proposed Rule, EPA clarifies that the term "project" also encompasses *programs* that result in the deployment of CEIP-eligible EE or solar programs in low-income communities (i.e., programs that deploy eligible projects). EPA further clarifies that "projects" may consist of an *individual* demand-side energy efficiency project or *multiple* projects implemented as part of program (i.e., it is not necessary for each project implemented as part of a larger program to submit its own eligibility application).[19] HPC strongly supports and appreciates these clarifications.

(IV) Clarification request and recommendation regarding the use of CEIP for states under a mass-based federal plan for carbon reductions.

[17] "A Policymaker's Guide to Scaling Home Energy Upgrades." SEE Action Residential Working Group. September 2015. https://www4.eere.energy.gov/seeaction/system/files/documents/Residential%20Policymakers%20Guide_093015_v2.pdf

[18] The Emission Guidelines specify that low-income EE, "projects," are eligible for the award of early action allowances and ERCs under the CEIP [see 40 CFR 60.5737(b)]. In addition, EPA proposes in the CEIP Proposed Rule that the current term "project" also encompasses programs that result in the deployment of CEIP-eligible EE or solar programs in low-income communities (i.e., programs that deploy eligible projects).

[19] CEIP Proposed Rule, page 120

In our previous comments we noted that there had been some misunderstanding on the part of industry stakeholders as to whether or not states would be eligible to participate in the CEIP if a mass-based federal plan were imposed in their state. This was due primarily to seemingly conflicting and contradictory language in the Proposed Federal Plan and Model Trading Rule. We appreciate EPA's efforts to remove these contradictions, specifically EPA's determination to remove the CEIP provisions from the Model Trading Rule rulemaking and to include all CEIP-related provisions in the CEIP Proposed Rule. We agree with the EPA that this action makes review/comment of, and adherence to, the CEIP easier and more convenient for all interested stakeholders.

We appreciate EPA's statements[20] in the CEIP Proposed Rule indicating that EPA's intention is to ensure that the CEIP will be available to any state in which the federal plan is implemented. We also appreciate EPA's stated intention that in the case of a federal plan, the state would have the option to implement the CEIP itself, and that it would only be if the state chooses not to – or cannot - implement the CEIP that the EPA would proceed to implement the CEIP in that state.[21]

HPC strongly supports the availability and opportunity for all states - regardless of whether they take a mass-based approach, rate-based approach, or are under the federal plan – to employ demand-side energy efficiency as part of the CEIP. We understand that EPA will not promulgate a federal plan until after the litigation surrounding the CPP has been resolved and the Supreme Court stay has been lifted, but we urge EPA to strongly and definitively state in the final CEIP Design Details that the CEIP will be available to all states, including those under a federal plan.

As recommended in our previous comments on the CEIP, if energy efficiency projects under the context of the CEIP are not able to be overseen by a state in which the federal plan is implemented, EPA should work in conjunction with DOE to help administer energy efficiency projects in that state. DOE has significant expertise – both in terms of technical knowledge and experience – in administering and overseeing national- and state-level energy efficiency programs and policies. DOE administers the appliance standards program, issues review standards, EM&V protocols, and also administers and oversees the Weatherization Program and the Federal Energy Management Program. All of this experience could help to facilitate the implementation and administration of CEIP energy efficiency projects in states under the federal plan that are unable to administer projects on their own.

(V) Recommendations regarding the EM&V requirements for eligible projects, particularly in states choosing a mass-based approach to CPP compliance.

In the CEIP Proposed Rule, EPA states that any state wishing to participate in the CEIP

[20] CEIP Proposed Rule, pages 15, 38
[21] CEIP Proposed Rule, pages 24, 38-39

must "include requirements in their plans for allocation or issuance of early action allowances or early action ERCs, respectively, that meet the requirements for the issuance of ERCs" and that "such a requirement applies to both mass-based and rate-based state plans including the CEIP, as the CEIP is based on eligible MWh of energy savings or RE generation, and these MWh must be quantified and verified appropriately in order to demonstrate eligibility for awards of early action and matching allowances or ERCs."[22]

HPC understands and appreciates the need to assure that energy savings are real, particularly for the issuance of allowances/ERCs under the CEIP. However, as argued in our previous comments on the CEIP, the desire for rigorous EM&V must be balanced with the need to avoid costly and cumbersome paperwork and processes that can and will be a barrier to energy efficiency investments. This is something that EPA itself acknowledges in the CEIP Proposed Rule, stating that "a majority of commenters asserted that EM&V requirements used to quantify CEIP-eligible MWh generated or saved should be flexible and transparent, should not be overly burdensome (i.e., the cost of the EM&V should be balanced with the accuracy and reliability of the results), should not present a significant disincentive to participation in the CEIP, and that states that already have robust quantification and verification processes in place should be allowed to rely on these processes."[23] Given that a majority of commenters shared this concern in previous comments on the CEIP, we are troubled that EPA did not make more of an effort to address this issue in the CEIP Proposed Rule.

EPA admits that the CEIP Proposed Rule will impose a number of additional requirements on states choosing a general mass-based approach that are not required for CPP compliance.[24] These additional requirements are significant and could present a burden to certain states' participation in the CEIP. While we would hope that states would be incentivized to develop more rigorous EM&V procedures to help guide their program evaluations, we are concerned that mass-based states may be disincentived from participating in CEIP altogether. Rigorous evaluations are costly and time-consuming to develop and, while aspirational, may not be practical for states that choose a mass-based approach in part to avoid the additional EM&V requirements included in rate-based state compliance plans.

The list of additional requirements laid out in the CEIP Proposed Rule for states choosing a general mass-based approach is extensive. According to EPA, the "additional requirements include regulatory provisions that address the eligibility of resources for state allowance allocation under the CEIP, and the process for such allocation, including: requirements for submission of eligibility applications, which include EM&V plans; requirements for EM&V; requirements for submission of periodic M&V reports;

[22] CEIP Proposed Rule, page 87
[23] CEIP Proposed Rule, page 48
[24] CEIP Proposed Rule, page 90

requirements for accreditation of independent verifiers; requirements for independent verifier reports (which must accompany both eligibility applications and M&V reports); and necessary tracking system capabilities that provide for the required two-step process for application for early action allowances that is consistent with the required two-step process for the issuance of ERCs."[25]

Instead of presenting evidence and arguments for why all of these additional requirements on mass-based states are reasonable and not overly burdensome – which is what a majority of commenters implored EPA to do – EPA simply states that the additional requirements are similar to those required for the administration of allowance set-asides to address potential leakage to new sources. This "justification" is problematic for a number of reasons. First, not all states choosing a mass-based approach will choose such set-asides as the means for addressing potential leakage. As such, those states that do not choose set-asides will indeed be faced with having to comply with numerous additional EM&V-related requirements for just two years if they wish to participate in the CEIP. We strongly believe that the disincentive for those mass-based states to participate will be too high to overcome.

Second, it does nothing to address the many comments EPA received on the need for flexible EM&V requirements that properly reflect the fact that the CEIP is a short-term program. Requiring all states wishing to participate in the CEIP to follow the very strict EM&V requirements laid out in the CPP is in no way flexible, and runs contrary to EPA's goal of incentivizing early action on renewable energy and energy efficiency. As we stated in our previous comments, and as numerous others also commented, we strongly urge EPA to allow states that already have robust EM&V processes to employ those existing EM&V processes and practices for CEIP participation.

Take, for example, the state of California, which has some of the most robust EM&V processes and practices in the nation. California does not use "common practice baseline" as it relates to demand-side energy efficiency EM&V. If California decided to pursue a mass-based approach without set-asides to address potential leakage, it would have to – according to the guidance laid out in the draft EM&V Guidance Document[26] requiring the use of "common practice baseline" – pursue separate EM&V protocols for CEIP projects and establish a distinct administrative process specifically for CEIP participation. We ask EPA to review our previous comments on the CEIP for additional and more detailed discussion of our technical recommendations pertaining to EM&V, including recommendations on: EM&V approaches to verify savings (such as bill analysis), EM&V billing analysis approaches that incorporate interval and other data

[25] CEIP Proposed Rule, pages 90-91

[26] Evaluation Measurement and Verification (EM&V) Guidance for Demand-Side Energy Efficiency Draft for Public Input (August 4, 2015). Available at http://www2.epa.gov/sites/production/files/2015-08/documents/cpp_emv_guidance_for_demand-side_ee_-_080315.pdf

from advanced "smart" meters and other "smart grid" and "smart home" devices,[27] the importance of and standardized processes,[28] the use of software tools to increase accuracy[29], the use of software accreditation systems and data aggregation technologies to enhance consistency between predicted and realized savings, and best practices to reference (including those from DOE's Home Performance with Energy Star Program and the Home Performance Coalition best practice guidelines).[30]

In addition to allowing states with robust EM&V processes to use those existing practices under the CEIP, we also urge EPA to support the development of an energy efficiency project registry. A national energy efficiency registry is vital to ensuring that accurate information regarding carbon emission reductions from qualified energy efficiency projects is accurately tracked and accounted for, both under the CEIP and for general CPP compliance purposes. EPA indicated in the proposed Federal Plan that it would consider facilitating the development of a national project registry for this purpose, and HPC is pleased that EPA is currently exploring options for providing such support. EPA notes in the CEIP Proposed Rule that it is conducting a "scoping assessment of tracking system support needs and functionality" and that this assessment will "consider support that could assist states with implementation of the CEIP."[31]

We believe that this assessment will ultimately show a real and widespread need for a national energy efficiency registry. A registry will allow states to keep track of all verified energy efficiency-related CO_2 reductions that have occurred in the state (for both CEIP and general CPP compliance purposes), and will greatly facilitate state decision-making and administrative activities by providing a comprehensive view of all registered energy efficiency projects in the state. A reliable energy efficiency registry that catalogs verified CO_2 reductions for state and federal officials is essential to any effort to simplify and encourage the use of energy efficiency under the CEIP, as well as for CPP compliance.

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[27] This data has the potential to make the quantification of savings from energy efficiency measures considerably more accurate and valuable, for example by allowing a more precise disaggregation of heating, cooling and other loads than the most common methods currently in use.

[28] For example the BPI-2400 standard ("BPI-2400-S-2012 Standard Practice for Standardized Qualification of Whole-House Energy Savings Predictions by Calibration to Energy Use History" or "Delta Standard"). BPI-2400 specifies a process for the calculation of standardized predicted savings: the difference (delta) between the modeled energy usage before and after an upgrade using approved building energy use simulation software. The process uses actual home energy bills to predict savings and provides a set of standardized operating conditions to be used in the final calculation of predicted savings. More information on BPI-2400 is available at: http://www.bpi.org/Web%20Download/BPI%20Standards/BPI-2400-S-2011_Standardized_Qualification_of_Whole_House_Energy_Savings_Estimates.pdf

[29] "Home Performance with ENERGY STAR Realization Rate Attribution Study." NYSERDA and Performance Systems Development (PSD). February 2014. http://psdconsulting.com/wp-content/uploads/2014/11/NYSERDA-PSD-Ex-Post-Application-of-BPI-2400-Standard-to-Senate-Committee.pdf

[30] See the reports outlined on the HPC website http://www.homeperformance.org/policy-research/resources/reports that document best practices for home performance policy and programs.

[31] CEIP Proposed Rule, page 87

Although a broad, national energy efficiency registry does not exist today, many of the fundamental elements for such a registry are already in place as a result of states' experience with renewable portfolio standards and renewable energy certificates (RECs) tracking. The proposed National Energy Efficiency Registry (NEER) project,[32] being led by the State of Tennessee and funded by a Department of Energy grant, could prove to be an extremely useful platform for this activity. We look forward to being actively engaged in the NEER development stakeholder process, and encourage EPA to participate as well.

Finally, in addition to supporting and facilitating the development and use of a national energy efficiency registry, HPC recommends that EPA should work with DOE to develop a national working group responsible for developing recommendations regarding appropriate EM&V protocols for the residential sector to ensure they are transparent, market-supported and flexible. As noted in our comments on the CPP Proposed Rule[33] and our previous comments on the CEIP, this working group could ensure that EM&V standards continue to evolve towards greater accuracy and flexibility as well as more streamlined and less intrusive collection and application of data at a time when technology is rapidly improving both the availability of data, and the techniques for creating value from that data.

Conclusion

HPC thanks EPA for this opportunity to provide comment on the CEIP Proposed Rule. This important program has the opportunity to help transform the way we save energy in this country and give homeowners the opportunity to be a part of American's clean energy solution. It is imperative to the overall success the CPP that residential communities be a significant part of the CEIP so that more Americans can play a direct role in determining their clean energy future.

Submitted:
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Home Performance Coalition

[32] The NEER project is funded by a Department of Energy grant and is being led by Tennessee. For more information see: http://www.theclimateregistry.org/thoughtleadership/energy-efficiency/ and https://www4.eere.energy.gov/seeaction/sites/default/files/pdfs/TCR%20SEE%20Action%20Webinar%2011-05-15.pdf

[33] EPA-HQ-OAR-2013-0602-23543 (posted December 9, 2014), available at http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-23543

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