Rulemaking: A. 14-11-007 et al.
Exhibit No.: NRDC-NCLC-CHPC-04
Witness: Lindsay Robbins

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of Southern California Edison Company (U338E) for Approval of its Energy Savings Assistance and California Alternate Rates for Energy Programs and Budgets for Program Years 2015-2017.	A. 14-11-007 (Filed November 18, 2014)
And Related Matters.	A. 14-11-009 A. 14-11-010 A. 14-11-011

TESTIMONY OF LINDSAY ROBBINS ON BEHALF OF THE NATURAL RESOURCES DEFENSE COUNCIL (NRDC), NATIONAL CONSUMER LAW CENTER (NCLC) AND THE CALIFORNIA HOUSING PARTNERSHIP (CHPC)

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INTRODUCTION

Q: Could you please state your name and professional affiliation?

A: My name is Lindsay Robbins. I am currently serving as an independent consultant to the Natural Resources Defense Council (NRDC) on the Energy Efficiency for All (EEFA) project, a joint effort between NRDC, National Housing Trust, Energy Foundation and Elevate Energy to increase energy efficiency in affordable multifamily housing in twelve states. EEFA initiatives include working with electric and gas utilities and their regulators interested in innovative energy efficiency program designs, advising housing finance agencies on best practices in building owner engagement and finance products, and collaborating with owners, managers, businesses and advocates in order to achieve energy savings in multifamily properties. Prior to my current role as a consultant to NRDC, I spent almost six years at the New York State Energy Research & Development Authority (NYSERDA) administering several of their program offerings for the multifamily sector.

Q: Could you describe your responsibilities as a consultant to NRDC?

A: I am currently working on a variety of research and other projects for EEFA. Relevant to this testimony, I have been conducting and compiling research on energy efficiency programs that serve the multifamily sector, in order to identify program design strategies and techniques that may be applicable to other programs.

Q: On whose behalf are you testifying?

A: I am testifying on behalf of the National Consumer Law Center, the Natural Resources Defense Council, and the California Housing Partnership Corporation.

Q: What is the topic of your testimony?

A: My testimony describes program design recommendations for California's Energy Savings Assistance (ESA) programs, based on my own recent multifamily energy efficiency program research for EEFA and on program design principles from EEFA's *Program Design Guide: Energy Efficiency Programs in Multifamily Affordable Housing*.

In particular, I present research from other jurisdictions' affordable multifamily energy efficiency programs in the areas of: energy saving goals or criteria, program coordination, program design, income eligibility, provision of whole-building measures, incentive delivery strategies, assuring tenants in multifamily properties receive direct benefits, technical assistance and workforce development, and measure offerings.

Based on this research and that found in the EEFA program design guide, I present recommendations that highlight solutions California's ESA program can adopt to better serve the many low-income California residents that reside in multifamily housing.

Q: Why is there a need for the adoption of program design solutions to better serve low-income California residents living in multifamily buildings?

A: The Commission has acknowledged the need for improved service to low-income multifamily residents and asked that the utilities administering ESA programs propose solutions that will enable them to serve more low-income multifamily units, achieve deeper savings, and find ways to address whole-building energy use, e.g. by requiring the utilities to propose budgets for common area measures and central heating, cooling, and hot water systems.[1] The following recommendations are based on best practices from programs that have identified and

[1] See ordering paragraphs 40 and 41 of D. 14-08-030, which provide, in part that the utilities "shall propose new, cost-effective measures for the multifamily sector, including common area measures and central heating, cooling, and hot water systems." See also California's Energy Efficiency Strategic Plan, which establishes the goal that ESA "will serve as an energy resource by delivering increasingly cost-effective and longer-term savings," and the Commission's "Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge" issued on April 10, 2015 for the proceeding, which inquires about energy savings goals or targets for the program.

implemented strategies to successfully achieve the same objectives that the ESA programs are currently attempting to achieve.

SUMMARY OF RECOMMENDATIONS

I. PROGRAM COORDINATION, MEASURE OFFERINGS, AND ENERGY SAVINGS

A. Create a new multifamily ESA program or program component to support comprehensive retrofits in low-income multifamily buildings through a single point of contact for building owners. In the alternative, combine or coordinate existing utility programs serving multifamily buildings.

B. Ensure program funds are used for common area and whole-building measures, in addition to in-unit measures.

C. Establish goals for the multifamily component that include specific targets for energy savings.

II. PROGRAM DELIVERY

A. Identify the building owner as the program participant rather than individual residents.

B. Assure resident benefits are maintained in whole-building programs.

C. Require an owner cost share for measures that do not directly reduce resident energy bills and would otherwise not be cost-effective, to ensure tenant benefits are paramount and to control overall program costs.

D. Adopt an opt-out policy for in-unit work in order to reach a greater percentage of units in buildings.

E. Provide energy assessments to identify the most cost-effective strategies for reducing energy usage.

F. Identify, train, and qualify a select set of contractors to serve the multifamily component of the program.

III. PROGRAM STRUCTURE

A. Separate out multifamily from single-family within the ESA programs, and give the multifamily components their own budget and energy saving goals.

B. Adopt Mechanisms for Mid-Cycle Program Changes

RESEARCH BACKGROUD

Multifamily Program Review – With the assistance of colleagues at the American Council for an Energy Efficient Economy (ACEEE), I chose 10 programs to review that I believed might have relevant insights or program design techniques that would be applicable to California's ESA programs and the EEFA initiative generally. For each program I conducted a literature review; reviewed publically available reports, budgets, and regulatory documents; and conducted interviews with program administrators. Of the ten programs reviewed, eight of them provided insights and program design techniques applicable to California's ESA programs: Austin Energy's Power$aver Multifamily Rebate Program (Texas), CenterPoint Energy and Xcel Energy's newly proposed Multifamily Building Efficiency Program (Minnesota), Efficiency Vermont's suite of multifamily offerings (Vermont), Energy Trust of Oregon's suite of multifamily offerings (Oregon), National Grid's Income Eligible Multifamily Program (Rhode Island), NYSERDA's EmPower Program (New York), NYSERDA's Multifamily Performance Program (New York), and Public Service Electric & Gas' (PSE&G) Multifamily Program (New Jersey).

EEFA's Program Design Guide – The EEFA team developed the *Program Design Guide: Energy Efficiency Programs in Multifamily Affordable Housing* with assistance from ICF International and input from organizations including ACEEE, PSE&G, and the US Department of Housing and Urban Development. The guide contains valuable information on energy efficiency in affordable multifamily housing and identifies twelve program design best practices that can improve the ability of programs to reach and serve the affordable multifamily sector.

1. Make capturing all potential cost-effective energy efficiency the goal.
2. Structure incentives for whole-building savings.
3. Develop programs specifically targeted at multifamily affordable buildings.
4. Support a "one-stop shop" where building owners can get access to integrated program services.
5. Ensure that cost-effectiveness tests work for multifamily affordable housing.
6. Ensure coordination across utility programs – electricity, gas, and water – and count savings from multiple fuels and water.
7. Help building owners finance efficiency projects.
8. Provide robust quality assurance.
9. Build partnerships with key local market participants.
10. Improve building owners' access to whole-building energy usage information.
11. Support benchmarking and other assessments.
12. Ensure incentives are reliable at project outset.

The full report is included as a separate Attachment A.

RECOMMENDATION DETAIL

I. PROGRAM COORDINATION, MEASURE OFFERINGS, AND ENERGY SAVINGS

A. Create a new multifamily ESA program or program component to support comprehensive retrofits in low-income multifamily buildings through a single point of contact for building owners. In the alternative, combine or coordinate existing utility programs serving multifamily buildings.

Comprehensively addressing qualified low-income multifamily buildings in California will require one of the following strategies:

1. **Coordinate Existing Utility Programs** - Robust coordination of existing programs would be required in order to provide comprehensive solutions to low-income multifamily properties. Coordination would require changes to existing programs to align budgets and timelines, and funding to support the necessary customer service infrastructure.
2. **Combine Existing Utility Programs to Create a New Multifamily Offering -** Combining existing programs into a streamlined offering for multifamily buildings that can also serve low-income multifamily at a higher incentive level, would require changes to existing programs to align budgets, timelines and audit requirements; the development of a single application; and the adoption of a successful strategy to combine incentives from other programs with ESA incentives to allow owners to do comprehensive work.
3. **Create a New ESA Multifamily Program** - Creating a new stand-alone ESA multifamily program or component that is designed to serve the specific needs of low-income multifamily properties would likely be the most successful strategy. The program

would need to adapt existing ESA guidelines to support the development of comprehensive work scopes through energy audits, the timelines necessary to install comprehensive work scopes, and would need to incorporate an incentive structure that would allow for 100% coverage of in-unit measures and owner cost share or upfront rebate for common area and whole-building measures.

The programs included in the research for this testimony provide examples of several different types of strategies that can be employed to coordinate or combine programs to comprehensively address multifamily buildings and there are many examples throughout the testimony of strategies for creating the different program components that would be necessary for a successful stand-alone program:

- **Robust Coordination of Multiple Programs to Provide Comprehensive Solutions (Efficiency Vermont):** In addition to its targeted multifamily programming, Efficiency Vermont (EVT) offers programs flexible enough to serve multiple sectors. It also has a robust customer service infrastructure in place to ensure that building owners identify the programs best suited to their building’s needs and have access to guidance throughout the participation process. Some of that support is provided through EVT’s customer service department, but the majority of the customer service support for multifamily building owners is provided by program and engineering staff who work very closely with owners to not only lead them to the appropriate program, but to also provide assistance throughout the process of bringing their buildings through the programs. EVT serves the majority of its multifamily customers through its New Construction & Major Rehabilitation Program, which is a comprehensive whole building program available to both multifamily and commercial customers that offers increasing levels of both incentives and technical assistance based on the depth of energy savings a project plans to achieve. EVT also offers a program designed specifically for smaller mixed-use multifamily buildings, its Building Performance Program, and rebates for building owners that are not ready to pursue a full retrofit.

One of the reasons EVT's model works so well for low-income multifamily is because of the commitment the State has made to energy efficiency in low-income multifamily housing and the requirements for participation in energy efficiency programs in order to receive state funds or financing. The requirements ensure a steady stream of demand for comprehensive energy efficiency retrofits and the programs are well designed to meet that demand.

- **Providing a Streamlined Offering for Multifamily Buildings That Can Also Serve Low-Income Multifamily (National Grid's Multifamily Program, PSE&G's Multifamily Housing Program, CenterPoint & Xcel's proposed Multifamily Program):**
    - **National Grid's Multifamily Program -** When National Grid (NG) began adapting its programs to meet Rhode Island's requirement that they achieve all cost-effective savings, they realized that the multifamily sector was not being adequately served by the low-income residential, market rate residential, and commercial programs currently available to the sector. NG made the decision to reallocate funds and develop a multifamily-specific offering that would serve both low-income and market rate multifamily buildings. The program is tailored to the unique needs of multifamily building owners, offers access to comprehensive savings through a single point of contact, provides free energy assessments, and customer service representatives to assist with paperwork. Both market rate and low-income buildings go through the same process and receive the same kind of technical assistance, but a portion of the program's budget is set aside for low-income buildings and is used to provide higher

incentive levels to qualified low-income buildings. Incentives are based on a rebate structure so that cost-sharing levels can be set on a measure-by-measure basis. However, the program strives to make that process seamless so that customers only have to consider the overall cost of the comprehensive work scope and what portion will be covered by incentives.

- **PSE&G's Multifamily Housing Program -** PSE&G recognized that there was a need for a program tailored to the specific needs of the low-income housing sector that could help building owners comprehensively address energy reduction in their buildings. To fill that need, they developed the Multifamily Housing Program, which was initially launched in 2010 as a program only for affordable housing, but has since been opened up to market rate housing owners as well. The New Jersey Housing & Mortgage Finance Agency (NJHMFA) partnered with PSE&G to design and launch the program and still works closely with PSE&G to channel participants into the program and provide on-bill financing to participating owners.

  The program provides a comprehensive approach, which begins with an investment grade audit, provided by PSE&G's consulting engineers, which also see the project through design, construction, commissioning and inspections. PSE&G pays for all technical assistance services and construction costs up front. The final total costs of the project are bought down by an incentive provided by PSE&G (7 year buy down in prior program years) and the balance is paid back by the building owner on their PSE&G electric or gas bill. Incentives are the same for both market rate and low-income buildings, but low-income buildings are eligible for longer loan terms for on-bill financing.

The overall concept of the PSE&G program is to remove the barriers that multifamily owners encounter with making energy efficiency investments by providing technical assistance, funding and a mechanism for repayment.

- **CenterPoint & Xcel's proposed Multifamily Program** - CenterPoint, a gas utility, and Xcel, a gas and electric utility, recently partnered to propose a new comprehensive multifamily program in Minnesota. While both utilities had worked together in the past, this new program represents a new level of collaboration. The utilities heard from stakeholders that there was a real need for improved programs to serve the multifamily and specifically low-income multifamily sector. To better understand the needs of the sector and design a program that could meet those needs, the utilities participated in the Multi-family Utility Working Group coordinated by ACEEE and the Affordable Housing Advisory Group, and sought feedback from multi-family building owners and operators, utility program administrators and implementers, and the advocacy community. The program is now going through the approval process, but if launched in its current form, will use funds from both utilities to create a combined direct install and whole-building retrofit program that serves both market rate and low-income multifamily buildings. The proposed program would provide common area and in-unit direct install measures for participating properties at the same time that an energy assessment is conducted to identify the appropriate work scope for a comprehensive retrofit. This would allow both residents and owners to see some immediate benefits from the direct install measures while the owner works with the program to select and install a work scope that will achieve deeper savings. The program will offer identical services to all multifamily buildings, but low-income buildings will be eligible for higher incentive levels.

The proposed program relies on a one-stop-shop model that will combine funding from both utilities, but use one program implementer to create a seamless whole-building program that provides technical and administrative assistance to participants in addition to incentives. The utility and implementer hand all decisions regarding the allocation of savings to the appropriate utility and funding sources, behind the scenes, minimizing customer confusion. The one-stop-shop model was chosen to make participation easier for customers, and to provide customers with the ability to address their whole-building energy use in a comprehensive way.

- **Providing Different Types of Programs to Serve Different Portions of the Low-Income Multifamily Sector (NYSERDA's EmPower & Multifamily Performance Programs):** NYSERDA offers two program that both provide comprehensive upgrades for multifamily buildings. Buildings with 5-100 units that have 66% or more of their units occupied by residents at or below 60% SMI (state median income) are eligible for both EmPower and the Multifamily Performance Program (MPP), but usually choose to participate in EmPower because the incentives cover a higher portion of the project cost. MPP serves all multifamily buildings with 5 or more units and offers higher incentives to buildings with 25% or more of their units occupied by residents at or below 80% SMI.

  NYSERDA's EmPower program operates very similarly to ESA with the exception that they also have a component of the program designed to allow them to comprehensively serve multifamily buildings. There are two possible paths for multifamily buildings. If an owner is not interested in participating, but has residents that want to receive in-unit improvements, EmPower will address units individually the same way they would with single-family homes.

Whenever possible though, EmPower encourages owners to bring their buildings into the multifamily component of the program, which allows EmPower to incentivize whole-building and common area measures, and allows the program to install in-unit measures in a much higher number of units. They usually reach 70-80% of the units in a building.

NYSERDA's MPP Program is a whole-building program that provides building owners with incentives to offset the cost of conducting an investment grade audit, developing a customized work scope to reduce whole-building energy usage by 15% or more, and installing that work scope. The program processes is the same for all participating buildings; however, qualified low-income buildings receive higher incentive levels.

Should the Commission choose to require coordination of existing programs rather than combining existing programs into one streamlined program, robust infrastructure to support that coordination will be necessary. A one-stop-shop that helps owners navigate multiple utility offerings, determine which programs are appropriate for them, complete applications, select contractors, and assists them though the construction process would be ideal, but at a minimum a single point of contact, associated customer support services, and the funding necessary for those customer support services should be required. Without that level of support it is too difficult for building owners to navigate the various programs and determine how to combine participation in multiple programs to support a comprehensive retrofit project.

Another key factor to consider is that comprehensively addressing multifamily buildings means longer timelines for projects. Programs need to be coordinated or designed to accommodate timelines that are more similar to commercial comprehensive retrofits than they may be to residential comprehensive retrofits. It is my understanding that California's one comprehensive multifamily program, Energy Upgrade California, has a total project timeline of more than one year, which is the minimum amount of time necessary to conduct an audit, decide on a retrofit work scope, and properly implement that work scope. That compares to average project timelines of three months for ESA and California's other non-comprehensive multifamily programs. Program timelines are an important consideration when it comes to judging the feasibility of program coordination or combination. Utilities will need to adjust program timelines and schedules to ensure that all of the programs required to support a comprehensive retrofit can accommodate the timeline of a comprehensive retrofit.

Program budgets are also an important consideration that could present a major issue when coordinating or combining programs. When you compare ESA budgets to those of the existing multifamily programs serving the state and consider that 33% of ESA-eligible customers live in multifamily buildings, it is clear that relying only on program coordination to facilitate access to the incentives and services low-income property owners need in order to make their buildings, healthier, more comfortable, and more affordable for low-income residents, cannot be accomplished with coordination alone. In order for coordination to work, the coordinated programs must have budgets that are adequate to serve the volume of customers that will want to participate in them. If ESA dedicates an equitable amount of funding to the multifamily sector, and relies on the ability to coordinate with other programs to serve those properties comprehensively, then the large majority of multifamily properties will not be adequately served.

Table 1: Utility Program Budgets Based on Historic 2013 ESA Expenditures and Average of 2013 and 2014 Non-ESA Budgets [2]

Utility	ESA Program, 2013 Expenditures	ESA Multifamily (32%)	Middle Income Direct Install	Multifamily Energy Efficiency Rebate	Energy Upgrade California - MF	Residential Direct Install
SCG	$88,293,209	$28,253,826	$1,000,000	$664,486	$500,000	
SCE	$50,213,175	$16,068,216	$1, 685,000	$11,750,000	$1,000,000	
PG&E	$109,667,644	$35,093,646	$2,494,663	$2,594,512	$750,000	$1,588,081
SDG&E	$15,160,223	$4,851,271		$1,701,295		$1,857,423

Coordination of existing programs may work if properly executed, but would require significant changes to program timelines and budgets, plus the funding necessary to support a one-stop-shop or similarly robust customer service infrastructure, and it would still be a less than ideal solution for serving low-income multifamily properties. Combining existing programs into a new offering for multifamily buildings that would allow the combined funds to be used for comprehensive work scopes and would offer a higher level of incentives to low-income multifamily properties, would also require significant changes to program timelines and budgets in order to combine them, but would provide a more streamlined solution for serving low-income multifamily properties. Creating a new stand alone multifamily program or component for ESA that will incorporate the necessary changes to support comprehensive retrofits would likely be the most effective solution for serving the low-income multifamily sector since the program could be tailored specifically to the sector's needs and would not require interference with other programs.

[2] ESA program budgets are compiled from Utilities' 2014 Annual Reports for program year 2013. Remaining data provided based on Utility Discovery Responses. SDG&E did not provide data for its MIDI and EUC programs in Discovery responses.

As many other states have realized, the multifamily sector and specifically the low-income multifamily sector provide significant opportunities for energy savings, but have unique needs and face unique challenges that make the implementation of energy efficiency more difficult. Programs designed specifically for the multifamily sector, and ideally designed specifically for the low-income multifamily sector, will be far better equipped to reach more low-income multifamily households, increase demand for energy efficiency services, and cost-effectively achieve comprehensive energy savings in low-income multifamily buildings.

Coordinating with non-utility programs, specifically with CSD's federal and state-funded weatherization programs, could make it possible to offer more comprehensive services to buildings that are eligible to participate in both ESA and CSD's programs. Both New York and Vermont have developed successful partnerships between Weatherization Assistance Program (WAP) providers and their ratepayer funded programs that have allowed them to combine federal, state, ratepayer, and other funds to provide more comprehensive energy retrofits in eligible buildings.

Efficiency Vermont (EVT) works very closely with the five WAP providers in the state. EVT has established annual fee-for-service contracts with each WAP provider to supply them with electric utility funds that cover a portion of audit costs and electric work in weatherization projects, which frees up WAP funds to achieve deeper savings in other areas of the building. EVT also works with the WAP providers to identify projects that might not be eligible or able to be served by WAP, but would be eligible to participate in one of EVT's programs and to refer those projects to EVT so that EVT can place them in an appropriate program.

NYSERDA also has a strong relationship with the WAP providers in their state. New York WAP providers refer the majority of the projects that come through EmPower's multifamily component. When a WAP provider is working in a building that they feel would be a good fit with EmPower's multifamily component, they bring in the EmPower team. If the building is an appropriate candidate, they will use both programs to increase the amount of work that can be done. Using multiple programs to treat buildings served by WAP streamlines the process because low-income verification requirements have already been met. The Multifamily Performance Program also collaborates with WAP providers in appropriate projects to provide more comprehensive energy and health and safety improvements.

B. Ensure program funds are used for common area and whole-building measures, in addition to in-unit measures.

EEFA's *Program Design Guide* recommends structuring incentives to support whole-building savings. Addressing the whole building in a comprehensive manner enables programs to achieve deeper savings and maximize cost effectiveness. Comprehensive projects in affordable multifamily housing also provide a much broader array of benefits to residents than direct install programs that only serve the units. Comprehensive projects serve three important objectives, specifically, lowering resident utility bills, enabling improvements that provide residents with a healthier and more comfortable living environment, and preserving the affordability of rental properties by lowering operating costs for the owners. All of the programs included in the research for this testimony, even those that offer higher incentives or cater specifically to low-income properties, have mechanisms in place to support common area and whole-building measures and employ a variety of different strategies that either require or encourage owners to pursue comprehensive whole-building retrofit projects.

In addition to offering incentives for common area and whole-building measures and encouraging comprehensive whole-building retrofit projects, Vermont has fully embraced the concept that comprehensive energy efficiency projects are essential to the preservation of affordable housing. Vermont does so by requiring that all multifamily affordable housing owners that receive state subsidies or financing participate in Efficiency Vermont's Multifamily New Construction & Major Rehabilitation program or their Building Performance program, both of which require a whole-building, comprehensive approach to energy savings.

Low-income residents living in multifamily buildings are entitled to receive the same level of benefits from energy efficiency investments as their peers living in single-family homes. In order to provide equitable benefits to multifamily residents, ESA should address multifamily buildings in at least the same comprehensive way that the program currently addresses single-family homes.

C. Establish goals for the multifamily component that include specific targets for energy savings.

Energy efficiency program goals and targets vary significantly from state to state. Examples include:

- Regulators establish specific budgets and electric and/or gas savings targets for each individual program (New York). In New York the main funding source for energy efficiency programs is the Energy Efficiency Portfolio Standard (EEPS). There are a broad variety of EEPS programs addressing each sector or a specific portion of that sector and each of those programs, regardless of size or scope, receives its own specific budget and electric and/or gas savings target.

Program	Years	MWh Saving Target	Dekatherm Savings Target	Electric Budget	Gas Budget
NYSERDA EmPower NY	2012-2015	81,149	850,412	$73,732,024	$95,687,284
NYSERDA Multifamily Performance Program (Affordable Component)	2012-2015	136,628	695,176	$35,957,892	$54,455,644

- Regulators set electric or gas savings goals on a portfolio-wide basis and leave it up to program administrators to decide how each program will contribute to the portfolio-wide savings goal (Oregon, Rhode Island).

National Grid (NG) Rhode Island Multifamily Program	2015 NG Established MWh or MMBtu Goal	2015 NG Established Budget
Income Eligible Multifamily Electric	2,907	$2,300,100
Income Eligible Multifamily Gas	19,098	$1,901,500

Energy Trust of Oregon (ETO) Multifamily Program Funding Source	2015 ETO Established MWh or MMBtu Goal	2015 ETO Established Budget
PGE - Electric	15,710	$3,201,452
Pacific Power - Electric	8,459	$1,723,859
NW Natural - Gas	27,762	$608,807
Cascade Natural Gas - Electric	2,353	$27,099

In 2006 Rhode Island passed legislation mandating a least-cost procurement strategy for all utilities. Since 2008, when the legislation was implemented, Rhode Island utilities have been required to procure all cost-effective energy efficiency and have been adapting their programs to meet that requirement. The goals and budgets presented above reflect National Grid’s estimates of the amount of cost-effective saving they will be able to procure in 2015 and the budget necessary to support that.

The importance of low-income energy efficiency in California and the specific need for improving the ability of programs to serve the multifamily sector merits the establishment of energy savings goals for the entire ESA program, and separately for each housing type in the ESA program. The goals must specify specific targets for energy savings and require that at least an equitable amount of funding be spent in the multifamily sector, based on the percentage of eligible customers living in multifamily housing. Specifically, California should commit to achieving all cost effective energy savings in low-income multifamily buildings. California's Loading Order Cal. Public Util. Code § 454.5(b)(9)(C), already provides that each utility must "first meet its unmet resource needs through all available energy efficiency and demand reduction resources that are cost-effective, reliable, and feasible." The Commission should establish requirements for the ESA programs that support the order and ensure that ESA programs achieve all available cost-effective energy savings in the buildings they address. This is one of the best practices identified by the EEFA *Program Design Guide* and has been successfully implemented by National Grid in Rhode Island across their entire portfolio of programs.

II. PROGRAM DELIVERY

A. Identify the building owner as the program participant rather than individual residents.

All of the programs included in the research for this testimony, with the exception of NYSERDA's EmPower program, deal exclusively with building owners rather than attempting to enroll individual residents in the program, and even EmPower deals with building owners rather than residents for the multifamily component of their program. Owners are the logical program participant for programs that comprehensively address multifamily buildings since they are the only entity with the power to make decisions on a building-wide basis.

B. Assure resident benefits are maintained in whole-building programs.

None of the programs included in the research for this testimony that provide higher incentives for low-income multifamily buildings have rules in place that mandate investment in in-unit measures that will directly reduce resident energy bills. The majority of program administrators said that they did not see a need for such rules for two reasons:

1. They provide higher incentives to low-income multifamily buildings to reduce utility costs for residents, but also to reduce operating costs for owners to preserve the affordability of the building and to help owners provide healthier and more comfortable homes for their residents. Energy efficiency improvements in any part of the building are therefore seen as a benefit to low-income residents.
2. They have not encountered issues getting owners' permission to install in-unit measures as part of a comprehensive retrofit project.

Evidence from these programs would suggest that there is no need for assurances in order to maintain resident benefits in comprehensive programs that address the whole-building energy efficiency. However, if the Commission would like to put a rule in place to ensure that resident benefits are maintained NYSERDA's Multifamily Performance Program (MPP) has a helpful model. MPP participants are allowed to develop their own customized work scopes to meet the program's 15% energy reduction target. However prior to 2009, low-income buildings participating in MPP and receiving the higher incentive levels were required to include in their customized work scope all of the in-unit measures that met the program's cost-effectiveness criteria and would directly reduce resident energy bills. This type of requirement could be used as part of a comprehensive multifamily program to ensure that residents in low-income multifamily buildings receive the same level of direct benefits as ESA single-family participants.

C. Require an owner cost share for measures that do not directly reduce resident energy bills *and* would otherwise not be cost-effective, to ensure tenant benefits are paramount and to control overall program costs.

Providing grants or rebates to offset the cost of common area and whole-building measures makes it feasible for building owners to install these measures. The cost savings owners realize from those investments helps to preserve the affordability of their buildings and helps owners provide healthier and more comfortable living environments for residents. That does not however mean that programs should cover the entire cost of measures that do not directly impact the energy bills of low-income residents. Establishing an incentive structure that only covers a portion of the cost of common area or whole-building measures or requiring owners to pay a certain percentage of the cost of a comprehensive whole-building retrofit project are two ways to ensure that programs support, but do not fully subsidize measures that do not directly reduce resident energy bills. Owner cost share strategies include:

- **Buying Down Return on Investment Timelines** - PSE&G's Multifamily Program covers all of the costs of a project up front, but once the project is completed, owners are required to contribute their portion of the project cost. PSE&G sets its grant levels based on the estimated timeline for owners to recoup their investment. PSE&G covers enough of the cost of measures to reduce the recoupment timeline by 7 years, but not to less than 2 years. On average, this requires owners to cover 30-40 percent of the cost of the retrofit.
- **Percentage of Project Cost** - CenterPoint Energy and Xcel Energy's newly proposed Multifamily Building Efficiency Program and the multifamily component of NYSERDA's

EmPower program both require that owners cover a specific percentage of the cost of the retrofit. EmPower requires owners to cover 25 percent of the cost of a comprehensive whole-building retrofit. CenterPoint and Xcel's proposed program bases the required owner contribution on the level of energy savings the project is expected to achieve, which encourages owners to pursue deeper savings. Owners of low-income properties contribute 50, 30, or 20 percent of the cost of the retrofit depending on the level of savings.

- **Rebates** - A rebate structure allows programs to establish an appropriate level of subsidy for each type of measure an owner chooses to install. Offering rebates for a broad range of measures and effectively packaging those rebates, a strategy employed by both National Grid's Income Eligible Multifamily Program and Austin Energy's Power$aver Multifamily Rebate Program, can help to encourage comprehensive whole-building retrofit projects.

  Austin Energy has developed a Comprehensive Rebate Program to encourage whole-building retrofits. The program assigns a point value to each type of measure based on the estimated energy savings the measure will achieve in a particular building type. In order to participate, a building owner must install a package of measures with a point value that exceeds 10 and must address at least 90% of the units in the building. Comprehensive incentives are higher than standard rebates because they include funds for measures that are not eligible for rebates and because the rebates are bundled into per unit incentives and increased by $50/unit for every point over 10, which encourages deeper savings.

  Offering rebates for a broad range of measures and packaging them appropriately can be effective for encouraging comprehensive retrofits, but rebates can pose an issue for building owners that do not have the cash flow to cover paying for improvements up front with no grant or financing assistance.

- **Incentive Levels Tied to Performance –** Efficiency Vermont's New Construction and Major Rehabilitation Program and NYSERDA's Multifamily Performance Program (MPP) both provide varying levels of incentives based on the level of anticipated or actual energy savings for the project. MPP's incentive levels are structured to encourage deeper savings, but also to ensure a high level of contribution from the owner. On average, owners contribute 65-75 percent of the cost of an MPP retrofit.

D. Adopt an opt-out policy for in-unit work in order to reach a greater percentage of units in buildings.

Energy Trust of Oregon (ETO) uses an opt-out strategy for their Multifamily Instant Savings Opportunities (ISO) direct install program, which allows them to reach an average of 85% of the units in participating multifamily buildings. Owners sign buildings up for participation and residents are offered the opportunity to opt-out of receiving upgrades. If they do nothing, their units are served along with the rest of the building. Adopting this type of strategy facilitates efficient work flow by enabling the contractor to work directly with the owners, ensures that the owner is fully informed, and enables the program to treat the maximum possible number of homes, while still providing residents with the opportunity to opt-out if they choose to.

E. Provide energy assessments to identify the most cost-effective strategies for reducing energy usage.

An energy assessment is required in order to identify the most cost-effective strategies for reducing whole-building energy use. Ideally buildings should conduct an investment-grade audit, which will provide the owner with the information necessary to make informed decisions about the appropriate measures to invest in, but currently very few programs require investment-grade audits. Of the programs reviewed for the purposes of this testimony, only NYSERDA's Multifamily Performance Program and PSE&G's Multifamily Program require that qualified technical consultants conduct an investment-grade audit as part of the retrofit process. Investment-grade audits are more expensive, but pay off by identifying the most cost-effective strategy for improving the energy efficiency of a building.

While investment grade audits may not be feasible for ESA, energy assessments definitely are and will be a necessary component of any program seeking to provide whole-building energy reduction solutions. Whereas owners are generally responsible for covering at least a portion of the cost of an investment-grade audit, energy assessments are generally wrapped into program admin costs and provided as part of the package of assistance offered to owners participating in the program. National Grid has found that providing free energy assessments and logistical assistance to program participants in Rhode Island is actually more cost-effective than not doing so because the deeper level of savings achieved with each customer more than offsets the cost of providing the additional services. NYSERDA's EmPower Program, Austin Energy's Power$aver Packaged rebate component, Energy Trust of Oregon's Custom Projects Component, and CenterPoint & Xcel's proposed Multifamily program all offer free technical assistance and energy assessment to participants and do so while still maintaining program costs/MWh or MMBtu saved that are almost universally lower than current ESA program costs/MWh or MMBtu saved in multifamily buildings.

The Commission should require that utilities incorporate energy assessments into ESA multifamily projects in order to help owners develop comprehensive work scopes and identify the most cost-effective strategies for achieving savings. In order to provide the necessary information for a comprehensive retrofit project, energy assessments should at least meet the standards of an ASHRAE Level I energy audit and an ASHRAE Level II audit should be required for any projects that involve major capital improvements. Where appropriate, participants should be allowed to use existing audits conducted through other programs as long as they meet or exceed the standards developed for ESA and are not more than five years old. EEFA's *Program Design Guide* also identifies support for audits and other assessments as a best practice in order to enable owners to access the efficiency potential in their buildings.

F. Identify, train, and qualify a select set of contractors to serve the multifamily component of the program.

The multifamily market is unique. In order to successfully identify, recruit, and service low-income multifamily buildings you need contractors with project management skills that know how to work with multifamily building owners and residents, identify strategies for reducing energy usage in buildings with systems and configurations that may be far more complex than standard residential systems, and properly manage larger scale projects with longer timelines and a higher degree of complexity. Programs like NYSERDA's Multifamily Performance Program and PSE&G's Multifamily Program have robust processes in place to qualify the technical service providers that work in their programs and ensure that they have the necessary expertise to properly serve the sector. Other programs like Austin Energy's Power$aver Program and NYSERDA's EmPower Program allow all contractors serving residential customers to serve multifamily customers as well, but have found that only a small portion of firms have success doing so because working with multifamily buildings requires a different skill set.

The Commission should require utilities to identify, train, and qualify contractors to serve multifamily ESA participants. Establishing qualification criteria and providing training will ensure that contractors working with multifamily buildings are qualified to do so without excluding those firms that are interested in expanding into the multifamily market, but require additional training in order to do so.

III. PROGRAM STRUCTURE

A. Separate out multifamily from single-family within the ESA programs, and give the multifamily components their own budget and energy saving goals.

The Commission has acknowledged the need for improved service to low-income multifamily residents. While it is possible to make meaningful improvements to service by coordinating existing programs to work better with ESA or combining existing programs with ESA, the best way to properly address the issue is to create a multifamily component of ESA, designed to meet the unique needs of the low-income multifamily sector, with a dedicated budget, and specific energy savings targets to ensure that buildings are addressed comprehensively in the most cost-effective way possible.

Six of the eight programs reviewed for this testimony are multifamily-specific programs with dedicated budgets. The remaining two programs, EmPower and Efficiency Vermont's suite of program offerings, have dedicated multifamily program components (EmPower) or have robust mechanisms in place to ensure that low-income multifamily building participate in available programs and that those programs are specifically designed to flexible enough to serve their needs (Efficiency Vermont). All seven of the program administrator teams I spoke with that have created multifamily components and programs created them because they realized that residential and commercial programs could not adequately serve the sector. Low-income multifamily buildings can be particularly challenging to reach and work in, which is why one of the key recommendations identified in EEFA's *Program Design Guide* is to "develop programs specifically targeted to multifamily affordable housing". The Commission should therefore require utilities to provide an equitable level of funding and energy efficiency services to low-income California residents living in multifamily housing by creating a component of the program designed to do so.

B. Adopt Mechanisms for Mid-Cycle Program Changes

All programs, no matter how well designed, can be improved by the lessons that program administrators learn though the process of implementing the program. Market conditions can also change and evolve over time and program administrators may need to make changes to adapt to new participant needs. This can be an issue when program administrators are locked into program designs that can only be updated every several years based on the cycle established by the Commission.

Unlike many other program administrators, Efficiency Vermont has the freedom to change its program design and offerings as needed to respond to changing needs in the marketplace. The freedom to alter program design or change up program offerings as needed, has allowed Efficiency Vermont to provide programs that are much more responsive to the evolving needs of Vermont's ratepayers. This is possible in Vermont because of the close working relationship between Efficiency Vermont and the Public Service Department who remains closely involved with program strategy, design, and implementation on a continual basis.

In order to allow for program administrators to improve their programs as they learn lessons from implementing them and to provide them with the means to adapt to possible changes in the marketplace, the Commission should adopt an efficient and effective mechanism for mid-cycle program changes.

Q: Does this conclude your testimony?

A: Yes.

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Respectfully submitted,

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On behalf of Lindsay Robbins, Natural Resources Defense Council, National Consumer Law Center, and California Housing Partnership Corporation.