Reducing Energy Costs in Low-Income Communities

Legislation Requiring Landlords To Improve Energy Efficiency in Subsidized Housing

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Tag Words: Green rooftops, Energy efficient, low-income, landlord’s laws, Energy audits

Summary

Many low income and disadvantaged families don’t own their homes and live in rental facilities. Landlords could make changes and repairs to the rental to make it more energy efficient, which would allow low income families to save money on the energy bills. However, landlords will not make changes or repairs to the house or apartment if they do not have to. The goal of our project is to introduce a legislative bill in the State of New Jersey that would require landlords to improve the energy efficiency of the rentals to provide a more energy efficient home to tenants.

Video Link
http://www.youtube.com/watch?v=K5lyUbS5keU

What can landlords change to decrease energy costs for low-income tenants? (PS)

Energy consumption in every country is likely only to increase in the future. Strategies to increase energy efficiency must therefore be put in place. According to an article written on the Energy Master Plan program created by Governor Christie Administration in 2011, New Jersey has the highest energy prices in the nation. Governor Christie, in an effort to lower the cost of energy has presented this plan that focuses on lowering the cost of energy, create more jobs, protect the environment and use energy more efficiently in New Jersey by using renewable energy which comes from natural resources such as the use of solar panels, winds and others, unfortunately the program has a long-term goal of at least 10 years. The different programs offered by the government have either a long-term goal or they are too expensive for low income families.

What other type of help is available that has a short-term goal and is offered to all general public on reducing energy cost? The most Energy efficient way to save the cost of low income family on electric city bill should be low in cost for them to afford and landlords to provide this services. The tenants of low income family earns less, yet to have shelter they pay the cost of high rent approximately $750 a month for 1 bedroom, for the low cost of rental this communities have least services on energy cost saving provided by the landlords to tenants. Laws in New Jersey have not been incorporated to have the landlord pay for the cost of efficient window installation and cost of high voltage lighting.
Therefore, to raise this awareness our primary goal is to write a letter to the State legislature of New Jersey, that the bill should be created that enforces laws for landlords of low income property owners, to have instillation of window stripping, and roofing systems that cost low to the landlords and also assist the tenants to pay their utility bills.

Laws to be acknowledged by the New Jersey legislature for Landlords to follow:

- After speaking to PSE&G customer service, they prefer that rental properties have the most energy efficient windows installed, because they account for 10%-25% of heating bill by letting heat out. As we all know or have experienced that in summer, your air conditioner work harder to cool hot air from sunny windows. PSE&G companies suggest that Installing ENERGY STAR®-qualified windows and the use of simple strategies such as having curtains and shade covered on windows gives air conditioner and energy cost a break.

- Most low-income family has apartments that has single-pane windows, laws for landlords to consider replacing them with double-pane windows with high-performance glasses and high technology coatings should be acknowledged in the bill, because it can be beneficial in colder climates, when the heater is heating your apartments, and provides support to keep the apartment warm by not letting the air out. In warmer climates, select windows with spectrally selective coatings to reduce heat gain.

- Landlords in New Jersey should install exterior, which is more efficient because it can reduce heat loss through the windows by 25%-50%. Installing energy efficient roofing can be the most useful way to save on energy cost. programs suggest by PSE&G companies provides services such as cool roofs and Green roofs. A cool roof is effectively new service provided by PSE&G and uses material that is designed to reflect more sunlight and absorb less heat than a standard roof. Cool roofs can be made of a highly reflective type of paint or a covering sheets. By installing a cool roof, you can lower the temperature of your roof by up to 50°F and save energy and money by using less air conditioning.

- Most landlord in low income communities rentals provide the lowest costs bulbs to tenants, law that requires landlords for replacing inefficient incandescent bulbs in apartments. Statistic shows that by replacing the bulbs with energy-saving bulbs could save each families about $50 per year from tenants electric bill.

- In addition, Air Ducts in many low rentals are open and very low quality installed. This contributes high energy bills. Law can be passed from the government that landlord to have qualified professionals seal and insulate ducts in unconditioned spaces and to ensure the use of appropriate sealing materials. Many times the landlords and tenants are unaware that the ducts are open and leaking, this can add hundreds of dollars a year to the
heating and cooling bills. Landlords, can insulate ducts that are hidden in unconditioned space, by doing so tenants will save energy cost and this will be cost effective to the communities.

Today, many states like Minnesota have laws for landlords to provide tenants with weather stripping and have energy efficiency savings in electric bills. By acknowledging the few goals above the low income family can save hundreds a year and have healthy conditions to live in. The State of New Jersey should pass a bill, that has the least amount of cost for installation and save the cost of energy efficient for the low income tenants.

What are the types of renewable energy? (EQE)

Renewable energy are the different types of energy that can be obtained from several natural resources such as the sun, wind, water and waste. The use of natural resources will lower the cost of energy around the country. In New Jersey Governor Chris Christie has created the Energy Master Plan in 2008 that focus on using this type of energy as a new resource. This plan has a long term goal of about ten years and it is good for families that can afford to pay for the equipment. The types of renewable energy available are:

1) Solar Panels: could be installed in houses to use the natural resources from the sun. There are multiple benefits from using this kind of resources. Among these benefits are the value of energy cost, protection of the environment by producing energy free of pollutants, the supply of energy will be unlimited and have no cost. Also solar energy could be collected from any site. A medium size panel that generates a 768Kwh a month would cost about 10,400 dollars. Currently the government does not offer any type of rebate or incentive to install the solar panels and even if they would offer one, it would not be enough help to low Income families.

2) Hydropower: This source of energy has been used for many years. The cycle of water, such as, evaporation, condensation and precipitation play an important role promoting the motion of water and therefore yielding energy production. According to the Energy Information Administration, hydropower energy produces the majority of electrical power in the United States covering for 6 percent of the energy produced of renewable energy.

3) Wind Power: It is the source of energy obtained from the motion of wind. The wind’s movement is produced by the different temperatures in the earth. The equipment used to get the energy from the wind is the wind turbines, which converts the kinetic energy into mechanical energy to produce electricity. This type of energy produces 3 percent of electricity in the country. Currently, the government offered different rebates and incentives to install wind powers equipment, the tax credit will covered for thirty percent of the total cost.

4) Geothermal Power: It is energy obtained from the different layers noted inside the earth. First one to use this type of energy source was the Italian population in 1900’s. Geothermal power sources are not visualized for the most part; this type of energy can be displayed on the surface of earth in volcanoes, hot springs, and geysers. It is good for industrial used; it will take a lots of
work, time and money to dig into the earth to obtain the energy for each residency. Also big and costly equipment is needed that would not be available to low Income population.

5) Biomass: Energy is obtained from the recycling of trash, plants, agriculture, algae and wood. All of these items would go under a process to convert them into renewable energy. The process required the proper equipment and most likely the work of a laboratory.

All those types of renewable energy are very useful and helpful but too expensive for low Income families. Moreover, in order to add any type of equipment to the property they have to own it and for the most part low Income families live of rental. They can not make any changes to the property if they do not have the permission from their landlord.

What are the statistic and benefits of having energy efficiency by installing green roof, recommended by PSE&G?(PS)

In many communities of New Jersey, landlords of low income rentals does not offer the services to the tenants they deserve, by paying high cost of utilities and rents. Landlords only look forward of getting their monthly payment checks and not pay for any services the tenants demands. In New Jersey, senators are still making a bill for landlord and tenants, but they are not aware of such low income communities major problem is paying the high cost for something they are not responsible for they rely on assistance from the government to pay this high utilities cost, However, to fix this problem government should take a stand and pass law for the landlords to have pay for the cost of services such as window coating and auditing to be installed in apartments. Statistics from PSE&G companies shows in the graph below that accounts for the major utilities in apartment that adds hundreds of dollars into the electric bills.

One efficient and cost effective way to lower the cost of percentile above would be having green roof tops, which is PSE&G companies recommend. This is new and many states like Chicago and New York have green roof tops installed. For instance, City hall of Chicago installed green
roof tops in 2001 and today, it saves $5,000 a year on utility bills. Green roof tops cost $25-35 per sq.ft, which is affordable than having solar panels on roof tops. United states census bureau considered people to be in low-income category if a family of 4 makes less than $40,000 a year. In 2010, United States census bureau acknowledged 10.3% poverty and low-income families in New Jersey, they seek and reside on this low facilitated rentals, but if the landlord install green roof tops it will be beneficial, because green roof tops cools and store water from rain in hot weather, giving the apartment comfortable cold weather, which can cut down the cost of air conditioning in summer.

In addition, these families seek apartments with low-cost. Many rental facilities that have low paying rents are highly associated with high crime rates and high mortality rates among the residents who live in them. The landlords do not provide the needs of residents, resulting in many of the problems these low-income tenants face today. This “Green rooftops” design will cut down many participants who seek aid to pay electric bills. Today, many apartment in New York City, Manhattan have at least 6 building fully using energy efficient living, provided by the landlords, this includes buildings that incorporate recycled or renewable materials and that slash energy use and water consumption with features like photovoltaic cells, internal sewage treatment systems and roofs covered in soil and vegetation. The rents of these apartments are $6,500 a month, But Can the low-income afford to live in this apartment? Landlords of low income tenants needs to educate that greening the apartment, which includes everything from conserving resources to improving indoor air quality, makes sense for low-income housing because it's economical for those with the least to spare. Government should look into states like Minnesota, where the bill has been passed for the landlords provided energy efficient services and have those incorporated into the state of New Jersey.

What are some of the benefits of energy efficiency? (EQE)

The biggest benefit of making the household energy efficient is to reduce the utilities bills’ cost. Also the improvements done in the house would raise the standard of living in low Income communities. Moreover, the value of the house will increase in the market, something that landlords should take in consideration.

What programs are available for low Income families? (EQE)

There are multiple ways energy can be lost in the house or apartments. The utility bills can be costly if energy consumption is not well managed. Some ways to lost energy could be through windows, poor insulation in the walls, roof, cooling and heating systems. Tenants and homeowner could spend about 2000 dollars per year on utilities half of this is usually spend on heating and cooling bills. The electrical and natural gas companies in an agreement with the government offer different programs to assist low Income communities to pay their utility bills, during different weather seasons. The energy facilities offer rebates, incentives and energy tips on how to reduce energy consumption and cost in the household. Home audits assess the house and look for potential areas of energy lost and play an important role to determine what significant changes could be done. The current programs offered by the government are:

1) The low Income home energy assistant program (LIHEAP).
2) The Universal Service Fund (USF), and
3) The Weatherization Assistant Program (WAP).

The LIHEAP program was created to help elderly population, disabled and low Income families. It issues them with a financial grant that will cover part of their utility bills. The USF program assist low Income clients to reduce the amount pay for natural gas and electricity bills. The WAP program was developed to make homes more energy efficient.

The Weatherization Assistant Program use contractors that received funds from the program called American Recovery and Reinvestment Act (ARRA), also known as the stimulus package provided by the government, which would cover for 30 percent of the cost made in home improvements. The plan issues a tax credit for up to 1500 on renovations related to home energy efficiency. In addition, the tax credit can be collect by landlords or homeowners each year until 2016 post renewals. Agencies that work with WAP are well train companies; they utilize different tools to do an overall assessment of the house. Home audits professionals determine areas of energy lost in the rental. Low Income families would have to apply and qualify for this program in order to get the appropriate help. Upon approval, arrangements could be done for a home audit. Currently the government does not offer any discounts or rebates on home audits.

Home audit are useful tools to determine energy efficiency in a household usually perform by a professional home energy auditor. The first step that should be considered by the homeowner or landlord is to call the energy or gas Company to check what incentives and discounts are offered related to home audits. Low Income population should send an application to WAP to qualify for assistant.

The Energy Star program suggests different ways and tips on how homeowner, landlords and tenants can assess their home for energy efficiency. Tenants can only suggest what changes could be done to their landlords since they lack of the power of making any restoration in the property. Also low Income families would lack the resources to make those changes. Professional home auditors uses technology that will help them to determine where exactly is the source of energy lost. They use a blower door test to assess the presence of any air leakage, duct pressure test is use to identify areas of air infiltration. Assessing the duct system will help to identify the amount of air circulating in the rooms, which is important for comfort and energy efficiency. Another way to identify heat lost is by using infrared cameras, which detect warmer surfaces noted to be brighter and cooler surface, which are darker. Heat pumps and air conditioning equipments should also be assessed. Old and malfunctioning equipment could be the principal reason for high utility bills.

Landlords should repair and made new changes to the rental facilities. Some changes do not require big expenses. Suggestions made by different energy website are to inspect doors and windows for any missing, cracked or broken caulking or weather stripping, if damaged found replace for new ones or repair them. In addition, check the electrical outlets and light switches for proper packing around them. Energy can be lost through poor insulation also. Inspect for existent gaps between walls and windows, walls and roof, wall and basement, pipes, wire penetrations, joints between different types of construction like brick chimneys, and holes in the ceiling.
Different suggestions to repair the problem found, are given on the green home website such as apply caulk between window frames and trims. Also, trim and walls. Install weather stripping at the top of the door and the sweeps at the bases of the doors minimizing the flow of air. Seal all the open areas with spray foam around existent constructions gaps, pipes, wires, windows and fans. These are simple ways on how the owner or landlord could make a more energy efficient house.

What are the current laws and Regulations in New Jersey for tenants and landlords? (EQE)

The State of New Jersey did not pass any specific law directed to energy efficiency issue for landlords, instead it has other laws that protect tenants’ rights such as the right of living in a safe and healthier environment provided by landlords, which include to assist tenants with any kind of repairs need it in the house.

Moreover New Jersey offered different plans to help low income population pay their bill and give them discounts for repairs within the house and for new appliances but unfortunately gives no help for home audit or house assessment. New laws need to be place and others to be reinforced by the State of New Jersey for the landlords to make an energy efficient environment for low Income Communities.

According to the Tenants Right in New Jersey from June 2010, the landlords have obligation to maintain a safe environment and do repairs in the house, this duty is called “warranty of habitability” which applies in return to paying rent. The warranty of habitability covers basic elements in the house such as roofs, windows, wall, heat and cold systems and other appliances that should be keep in good conditions. This law needs to be reinforced specially for households with low Income, which would be more energy efficient.

Many tenants complained of landlords not doing the repairs necessary whenever is needed. The law protects tenants right by allowing them to call a health inspector, if not repairs are made by landlords, the money from rent can also be use to pay for those repairs. If the landlord still refuses to do repairs money can be withhold and legal action could be take. This law that protect tenants are directed to health and safety issues but can also be used as a way to make a home more energy efficient. The repairs done to damage areas in the house would have a positive outcome on big energy savings.

The State of New Jersey needs to introduce a new law concerning home energy efficiency. It is important to reduce the consumption and cost of energy in low Income families. The law would also benefit other important aspects such as a energy clean environments. The steps taken by other states like San Francisco in august of 2008 are examples to follow. The law in San Francisco requires that every new building made or any building going under repair should follow the green building new standards imposed on that city. The same type of law should be given in New Jersey.

Service Project (PS and EQE)
According to the National Center for Healthy Housing, the State of Minnesota is currently the only state that has passed laws for landlords on making the house more energy efficient. Landlords need to provide storm windows, doors, making the house more insulated so the lost of energy will be minimized. New Jersey needs to pass a similar law in the State to help low Income Communities to reduce their utility bills even more. The Minnesota law states as follow:

“Minnesota: 504B.161. Covenants of landlord or licensor
Subdivision 1. Requirements.
(a) In every lease or license of residential premises, the landlord or licensor covenants:
(3) to make the premises reasonably energy efficient by installing weather stripping, caulking, storm windows, and storm doors when any such measure will result in energy procurement cost savings, based on current and projected average residential energy costs in Minnesota, that will exceed the cost of implementing that measure, including interest, amortized over the ten-year period following the incurring of the cost”.

Our project was to send letters to the Legislators with the above law petitioning the introduction of a new bill in New Jersey.

July 30, 2012

Dear NJ Legislator:

We are Rutgers students working on a project on how to reduce the utility bills of low Income families. During our research we found that many low Income families do not own a home and, for the most part, they rent. Different laws for landlords in the State of New Jersey support tenants right of living in a safe environment that should be provided by their landlords but, unfortunately, there are no laws concerning the landlord providing an energy efficient environment.

In other states such as Minnesota the tenant-landlord laws support energy efficient environment. The law 504B.161 for covenants of landlords or licensor said: “In every lease or license of residential premises, the landlord or licensor covenants are to make the premises reasonably energy efficient by installing weatherstripping, caulking, storm windows, and storm doors when any such measure will result in energy procurement cost saving, based on current and projected average residential energy costs in Minnesota, that will exceed the cost of implementing that measure, including interest, amortized over the ten year period”.

This law is essential for lowering the cost of utilities bills to low Income families. The landlord should be responsible of making sure the property is energy efficient. Requiring that the landlord have an energy audit done and then acting on the recommendations to improve the rental energy efficiency would have a great impact on lowering energy consumption and lowering the tenants energy bills.

We are requesting that you introduce a bill in the State of New Jersey similar to Law 504B.161 in Minnesota.
We would really appreciate your feedback and whether you think that such legislation could be instituted in New Jersey. We are writing a paper soon to be published which we could send to you or other legislators that may be interested in sponsoring such a bill.

Thank You,

Evelyn Quevedo

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We are currently waiting for responses, and hope that the legislators to whom this letter was sent understands and makes a bill for the landlord to have save the cost on energy efficiency for low income families.

CC- Copy the letter to legislators in districts of New Jersey

- Senator Nichalos Sacco
- Senator Gerald Cardinale(Distric 22) Bergen and passaic county
- Senator Samuel D.Thompson (Distric 12) Middlesex county

Letters to Editor

The Record (PS)
To whom it may Concern:

I am a Rutgers Student, currently working on a service project regarding greening of low-income areas. Greening of the low-income areas is extremely important to our community, because it can lower the cost of many families who depends on pay-stubs for food and electricity. Many electric companies such as PSE&G, has programs called LIHEAP (Low-income home energy Assistant program). This program is designed to help low-income family pay their electric bills.

Today, many states like Minnesota has laws passed for the landlords, to have windows and doors auditing, storm window installation for tenants to have saved the cost of energy. However, through this service project we are trying to raise awareness to the tenants of low-income families and landlords that by having this services provided to the tenants will save many tenants to pay hundreds dollars in bills. We want our government to pass a bill and make it into law in New Jersey to have this facilities provided to low-income tenants by the landlords.

I am writing to you to help raise this awareness to many low-income families and landlords that saving the cost of energy is important and find the least expensive way to save on energy. By
doing this we will take one step forward to save our planet and will be able to use renewable energy in the cause of any disaster. My contact information is below, Please feel free to contact me with any inquires.
Thank you for your time,
Parita Shah

To Asbury Park Press(EQE)

To Whom It May Concern:

I am a Rutgers student currently working on a saving energy project. Energy is necessary for our daily activities and place and important role in our household, it can also be costly if the consumption is not well managed. According to the Energy Master Plan created by Governor Christie on 2011, the State of New Jersey has the highest prices on energy cost among the Nation. The Energy Master Plan focus on energy efficiency by using natural resources, at the same time wants to protect our environment and primarily reduce the cost of energy for each household in a long-term goal. What other things could be done in a short-term on behalf energy consumption and cost reduction? Home energy audits could be added to the New Jersey law as part of the landlord’s duties in order to reduce the cost of energy to their tenants, specially, the low Income families who would benefit the most with this service. Home energy audits are available to the general public but low Income families cannot afford to pay for this service. In the other hand, if the state approved it as part of the landlord’s duties, the improvement made to each house such as improving insulation, better windows and others would reduce the cost of energy significantly.

Thank you for your time

Evelyn Quevedo

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