

## Policy Drivers for a Green Economy

### Executive Summary

iCAST (International Center for Appropriate and Sustainable Technology) and its partners plan to implement a pilot project in Colorado that will reduce the utility bills for low-income families and non-profits that serve them, thru the installation of solar PV systems. This pilot project can become a case study for this nation to not only replace fossil fuel consumption with clean energy but do so in a financially sound manner. The national program is called ‘Solar Access America’. By investing in reducing the utility bill for low-income households, we can reduce/eliminate the need for bill payment assistance programs. ‘Solar Access America’ will also include workforce training on solar installations and energy efficiency auditing and installations for the under and un-employed population. This program will not only provide a permanent fix to the bill payment assistance welfare program but also provide green jobs. ‘Solar Access America’ also provides social justice by allowing the low-income population to enjoy the benefits of solar energy that we all pay for, thru our taxes and utility bill surcharges.

Unfortunately, to launch the pilot ‘Solar Access Colorado’, certain changes in current policy are needed to successfully implement this program, including:

1. Ability to allocate weatherization program funds to install solar and other clean energy solutions.
2. Ability to divert existing and/or allocate additional funds from the bill payment assistance program into the energy efficiency and renewable energy installation program.
3. Allow/promote third party ownership of these installations so that the government and philanthropic funds can be leveraged with private investments.
4. Ability for a customer to change their rate structure with the utility.

### Background

Energy efficiency and solar installations can reduce the utility bill for a low-income family for the life of the installation (~ 30 years). Unfortunately, existing laws, policies and practices create hurdles to initiate and implement programs that would reduce the utility bill burden for low-income families. We as a country spend hundreds of millions of dollars on bill payment assistance to help the low-income pay their utility bill. Just in Colorado, one in five households request bill payment assistance. Nationwide, the



*A family of farmers in the San Luis Valley installed PV to reduce their utility bill but is unable to do so due to the policies discussed herein.*



needs of this 'energy welfare' program have kept increasing with rising cost of energy. To stem this tide, we should be creating policies that incentivize and promote programs that eliminate the need for bill payment assistance and instead fix the problem by reducing the utility bill.

iCAST with its partners Energy Outreach Colorado, Mainstreet Power Company, Morgan Stanley and University of Denver, with support from Colorado Governor's Energy Office, U.S Dept. of Energy, etc. have recently initiated a program 'Solar Access America' to reduce the utility bill for low-income families, non-profits such as homeless shelters, public schools and others that serve the low-income population. We plan to initiate a pilot program in Colorado, to install energy efficiency and solar solutions for 1,000 low-income families without any cost to the beneficiaries. Unfortunately, we learned that we could not implement our program because of existing laws and regulations.

### **Policy Issues**

Some of the key obstacles that currently prevent low income families to access solar energy in Colorado include:

- Ability to allocate weatherization and bill payment assistance funds to install solar energy solutions
- Third party ownership of clean energy installations.
- Ability for a customer to change their own rate structure with the utility.

A large portion of the financial return on a solar PV system is based on the Federal Investment Tax Credits (30% ITC) and a 5-year accelerated depreciation. Low-income families, or the non-profits serving them (such as homeless shelters), do not have a tax liability, and hence lack the ability to monetize the ITC or the depreciation. They can turn to an investor with the tax appetite to fund their solar installation, just as government facilities do with ESCo's using a performance contracting mechanism. But third party ownership of a typical household system, typically under 10kW is not permitted by Colorado currently. By allowing a third party with a tax liability to own the system, low-income families can monetize the benefits of the Federal ITC and depreciation, that otherwise would be worthless to them, and make the PV system affordable to them.

We need to provide low-income housing authorities and non-profits (such as homeless shelters), the ability to change their rate structure from a demand charge based rate (where 60% of their bill is tied to a demand charge that does not reduce even if they generate all of their electricity from solar) to a general rate (which is typically higher per Kwh), so that the energy savings through solar PV can help reduce the utility bills. Rural Electric Associations (REAs) will allow their customers to change to a rate structure that is most beneficial to their customer, but the state of Colorado does not allow the investor owned utilities like Xcel Energy to allow its customers to change their rate structure.

In fact, the recent movement in Colorado has been to allow the utilities to reduce the cost per unit of energy (\$/kwh) in return for increasing the fixed costs charged to the customers. This



change in policy is detrimental to promoting both energy efficiency and renewable energy. By reducing the cost per unit of energy, we are reducing the incentive for a customer to reduce their energy consumption thru conservation or a solar PV installation.

The REC payment is a cash rebate by the state to lower the cost of a PV system. The amount was lowered recently by Xcel Energy because the federal government lifted the \$2,000 ITC limit for homeowners. While this move makes sense for a homeowner with a large tax liability, it has no impact for a low-income family or non-profit that did not have a tax liability to begin with. The reduction in the REC payment is the final nail in the coffin for low-income families that hope to benefit from solar energy.

By keeping solar energy and other similar clean energy technologies out of the reach of low-income families, we are implying that these technologies are only for the wealthy. The low-income segment of our society will not get involved if they are not familiar with these clean energy technologies. The 'Internet Economy' left the low-income segment of our population untouched, so that they are still struggling to get decent internet connections. If the underserved population is not given the opportunity to affordably access renewable energy technologies, they will only fall further behind in education, employment and basic advancements related to the important changes coming thru the new energy economy currently underway.

Finally, every unit of energy that we conserve or produce thru solar reduces our dependence on fossil fuel and foreign sources of energy, getting us closer to energy independence and reducing our impact on pollution and climate change.

Luckily, Colorado has the tools readily available to fix this situation. Colorado Senate Bill 07-22 that was passed into law allows for special consideration for low-income families. The Colorado Public Utilities Commission (PUC) clearly values programs targeted to low-income families as sited in their recent Demand-Side Management (DSM) case. So, we in Colorado find ourselves in a position to level the playing field for the low-income segment of our society and allow them to participate in this New Energy Economy by allowing third party ownership, reinstating the REC payment to the \$2.50/Watt for low-income families and by allowing them to change their rate structure.

**Contact:**

Ravi Malhotra

Founder and Executive Director

iCAST (International Center for Appropriate & Sustainable Technology)

8745 West 14th Avenue, Suite 220

Lakewood, CO 80215

(p) 866.590.4377 \*801

(f) 720.881.4639

[ravi@icastusa.org](mailto:ravi@icastusa.org)

[www.icastusa.org](http://www.icastusa.org)