

# Transitioning Away from Carbon, Advancing towards Justice

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# Goals: 100% renewable energy generation by 2030 and a just Transition\*

Renewable energy generation shall be defined as electricity generated from wind, photovoltaic solar, geothermal and/or **existing** hydroelectric capacity.

The Task force should recommend that all policies enacted to achieve this goal be evaluated through an Environmental, Racial and Economic Justice impact analysis aimed at ensuring that energy policy does not unduly burden low-income communities or communities of color, but instead proactively includes and empower these vulnerable groups.

# Financing the Transition

For the purposes of this proposal we are restricting ourself to consideration of potential revenue from an electricity sector specific fee or tax levied per ton of emissions.

In 2010, electricity generation in Nevada generated 16.7 million MTCO<sub>2</sub>eq (metric tons of cO<sub>2</sub> equivalent; taking into account natural carbon sequestration from Nevada forests), with projected emissions from that sector estimated at 16.0 for the year 2015

The following table calculates the revenue generation options for the first year of production for a 25\$, \$35 and \$50 starting carbon taxes.

# Financing the Transition

## Potential Revenue from A Carbon Fee or Tax:

	2015 (16.0)	
25\$ per ton	\$400,000,000	
35\$ per ton	\$560,000,000	
50\$ per ton	\$800,000,000	

- To maintain a stable level of revenue, we recommend that the Task force recommend an escalating fee or tax, which would increase annually at a rate at a rate calculated to compensate for revenue shortfalls due to emissions decreases.

# Carbon Tax Proposal

- 1) The task force shall recommend that NDEP be directed to calculate an initial carbon emissions fee or starting floor price for a carbon emission auction. Any and all initial starting carbon prices in either or both models must be demonstrated to be capable of moving Nevada to 100% renewable generation by 2030. No price that can not be modeled or demonstrated to achieve this goal may be set as a floor price or carbon fee price.
- 1) The task force shall recommend that revenue generated from the tax or auction be allocated to a Green Development Trust, which cannot be spent for any other purposes than those of encouraging renewable energy development, financing energy efficiency investments and ensuring a comprehensive, racially and economically just transition to 100% renewable energy. 50% of the revenue allocated to the trust must be spent on renewable energy and/or energy efficiency projects that are located in and/or serve low-income communities, indigenous communities and communities of color.
- 1) The task force will convene a public process involving core stakeholder groups representing communities of color and low-income communities to create an acceptable definition of “communities of color and low-income communities” for the purposes of this policy initiative.

# Ensuring Equity: The P.A.Y.S. Model

PAYS (Pay-as-you-save) Model is a utility investment solution that offers customers the option to access cost effective energy upgrades using a proven cost recovery model for both the customer and utility.

PAYS leverages the utility's core business model to enable a more cost effective way to invest in distributed energy solutions. With a tariff, utilities can serve renters, and it can leverage existing incentives, which lowers the cost of attaining annual energy efficiency objectives.

## *How it works:*

The utility invests in cost-effective energy upgrades like better building efficiency i.e. weatherization work, lighting, HVAC. The utility pays the installer, so the customer pays nothing upfront for the upgrades they choose. Using a tariff, the utility puts a fixed charge on the monthly bill that is significantly less than the estimated savings generated by the upgrade - so the customer enjoys immediate and sustained positive cash flow. Until the investment is recovered, the tariff for the PAYS charge automatically transfers to future customers residing at that site.

# The PAYS Model:

## Results

*Several utilities are already demonstrating remarkable results through an opt-in tariff for energy efficiency.* Thus far, thirteen utilities in six states have led the way, especially in reaching market segments that are hard to serve with traditional financing: renters (business and residential), multifamily buildings, municipal customers, and moderate-income households. PAYS clears the biggest barriers and expands the addressable market because it does not depend on consumer loans or property liens.

*Compared to typical debt-based programs, experience shows that investments based on an opt-in tariff have a bigger impact for four reasons:*

All customers with bill payment history in good standing are eligible for utility investment. As a result, the addressable market is double the size of third party finance solutions.

1. When customers receive upgrade offers with the PAYS value proposition, they accept more than half of the time, which is 5 times the typical rate.
2. When customers do accept, the projects they undertake are much larger because the terms are more attractive and there is little risk from participating.
3. Finally, the investment is more secure because utility collections have a charge-off rate that is approximately 10 times lower than the national average for consumer lending.

*The results of efficiency investments are compelling, yielding average energy savings of 25%.* Utility regulators in NH, HI, KS, and KY have already approved tariffs based on the PAYS system. (The utility branded names for those programs include PAYS®, Smart \$tart, Solar\$aver, How\$mart® and How\$mart KYTM.) Roanoke Electric in North Carolina has also launched a program this year based on PAYS called Upgrade to \$ave, and multiple water utilities in California run water and energy saving programs based on the PAYS system as well.

# Virtual Net Metering

To best ensure community and democratic control of the new energy industry, the Taskforce must:

- a) establish net metering for distributed energy generation and
- b) establish virtual net metering policies that allow households and energy consumers who would not otherwise be able to install or afford net-metered Renewable energy to have access to the benefits of off-site, community owned net metered renewable energy generation.

The Task force should recommend that a portion of any fee/auction or tax revenue be directed to supporting the creation of community owned, virtually net-metered solar installations.

# Virtual Net Metering

1. Virtual Net Metering, (or *Virtual Net Energy Metering, Shared Solar or Community Solar*) allows multiple customers to offset their combined energy use from a common distributed generation system. Like traditional NEM credits, VNEM credits are typically valued at, or at least based on, participants' retail rate (or rates). Practical application of VNEM has been successfully seen in three settings, generally:
  - a. Utility Sponsored - Where the electric utility installs solar on buildings and allows customers to invest directly.
    - i. Sacramento Municipal Utility District (SMUD) Solar Shares Program - In this program, ratepayers pay a monthly charge based on the kW of solar funded, and the energy created from the solar farm shows up as a credit on their bill.
  - a. Special Purpose Entity (SPE) or Third Party- this model involves combining investments from community members and providing returns or on-bill credits where a third party developer investor sponsors a solar investment for a community.
    - i. In many ways Mosaic is a good example of the SPE model, allowing investors to purchase an interest directly in a project.
  - a. Non-Profit Model Sponsored- where a non-profit offers investment in a solar project to their donors and members.
    - i. A couple of successful projects include the Winthrop Community Solar Project in Winthrop, Washington
    - ii. And the Solar for Sakai project in Bainbridge Island, Washington.