



### Elements of a Transition to a Clean Energy Economy

Securitization

# ACCELERATION BY LEGISLATION

- Renewable Portfolio Standards
- Energy Efficiency Standards
- Clean Air and Water Standards
- New Regulatory Models

# MITIGATING IMPACTS – or "Just Transition"

- Diversification & Expansion of Economy
- Support for Impacted Communities
- Support and Inclusion of Low Income Households



### Are New Regulatory Models Required?

- Rewards utilities only when they invest in and own electric infrastructure.
- Discourages or prohibits third party ownership of electric infrastructure (e.g. community solar).
- Creates stranded costs which represent a massive wealth transfer from future generations to the current generation.
- Motivates utilities to resist change to the status quo.
- Ties the hands of regulatory commissions in trying to meet new challenges
- Creates a game of "cat and mouse" between the utilities and their regulators, in which regulators are always trying to play catch-up

US Energy Information Agency 2017

<sup>2</sup> National Renewable Energy Laboratory 2016



#### **Just Transition**

- Job losses are not an automatic consequence of climate policies, but the consequence of a lack of investment, social policies and anticipation<sup>1</sup>.
- Most workers in impacted communities need new jobs where they live because of home ownership, aging parents, children, and poverty.
- What is the role of government vis-à-vis corporations and the impacted communities?
- Without planning and sustained effort by government, corporations and the impacted communities, de-industrialization can/will decimate impacted communities.
- The lessons of Pittsburgh and Detroit.



## An Assessment of New Mexico's Energy Potential

Total Energy Production <sup>1</sup>	#8 of 51
Average Electricity Price <sup>1</sup>	#33 of 51
Electricity Consumptions per capita <sup>1</sup>	#40 of 51
Total CO <sub>2</sub> Emissions <sup>1</sup>	#32 of 51
Total CO <sub>2</sub> Emissions per capita <sup>1</sup>	#13 of 51
Of 11 Western States	
Total RE Production in the west <sup>1</sup>	#7 of 11
Total RE Production in the west per capita <sup>1</sup>	#3 of 11
Total UPV <i>Technical</i> Potential in the West <sup>2</sup>	#1 of 11
Total Wind <i>Technical</i> Potential in the West <sup>2</sup>	#2 of 11
Total UPV <i>Economic</i> Potential in the West <sup>2</sup>	#2 of 11
Total Wind <i>Economic</i> Potential in the West <sup>2</sup>	#3 of 11

<sup>1</sup> US Energy Information Agency 2017

<sup>2</sup> National Renewable Energy Laboratory 2016



### An Assessment of New Mexico's Energy Potential

New Mexico's Total Electric Consumption in 2017 was 23 terawatt-hours<sup>1</sup>

New Mexico's <u>economic</u> wind and UPV potential production is 3717 terawatt-hours (per year)<sup>2</sup>

New Mexico's RE economic potential production is more than 160 times the state's total electricity consumption.

If we increase the RPS goal to 100% we will be using *less than 1%* of the state's total RE potential production

<sup>1</sup> US Energy Information Agency 2017

<sup>2</sup> National Renewable Energy Laboratory 2016



## **Economic Solar Resources / Total Electric Consumption**

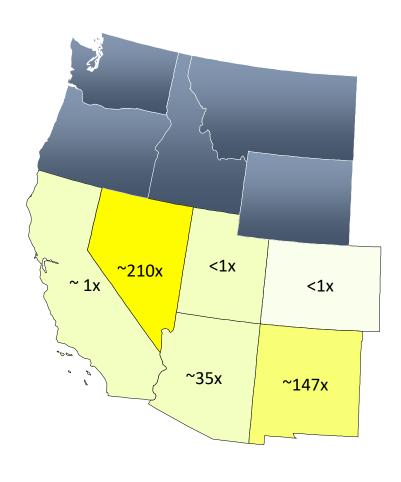
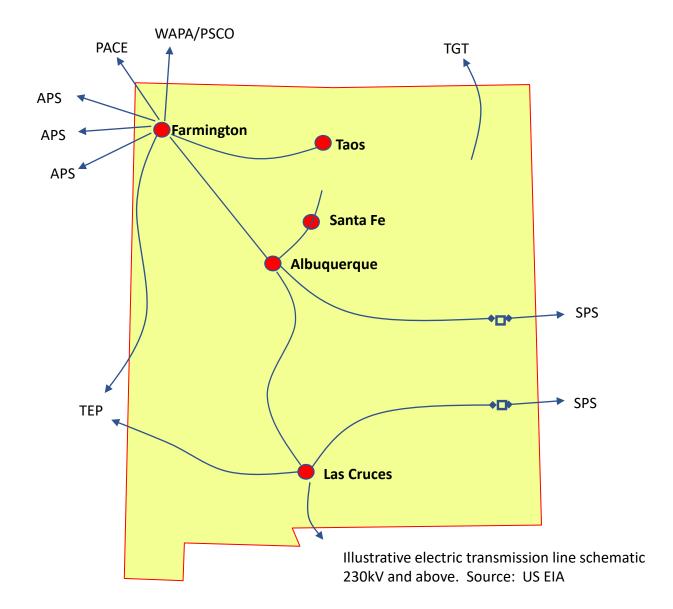


Illustration: FreeVectorMaps.com Data: NREL



# "Re-industrializing" via New Mexico's Renewable Resources





# Legislative Tools Securitization

#### What is it?

A financial tool that allows utilities to recover the costs associated with closure of a power plant at a reduced interest rate (comparable to state general obligations bond).

#### How does it work?

The state must pass legislation authorizing the utility commission to to approve an accounting order for the utility costs to be securitized, making the securitization *irrevocable* and *non-bypassable*.

#### What are the savings?

Depending upon the terms of the issuance, it can save 30%-50% of the interest payments on the amount to be financed. This can mean more hundreds of millions of dollars saved on a large bond.

#### How does this help a "Just Transition"?

The bond can include costs such as job-retraining, early-retirement, economic development for the impacted communities making these costs more affordable.



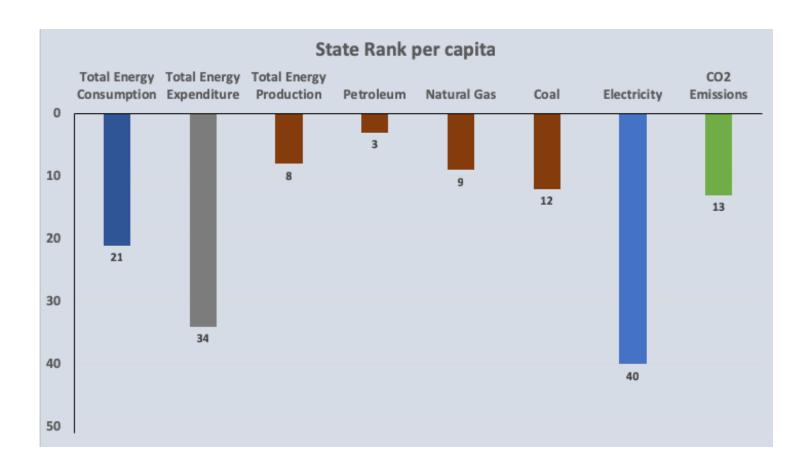
## Discussion & Questions



## **Additional Data**



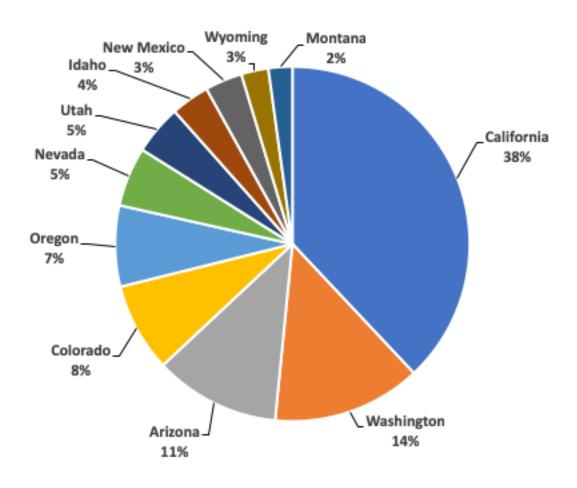
### Title



Source: US Energy Information Agency 2017

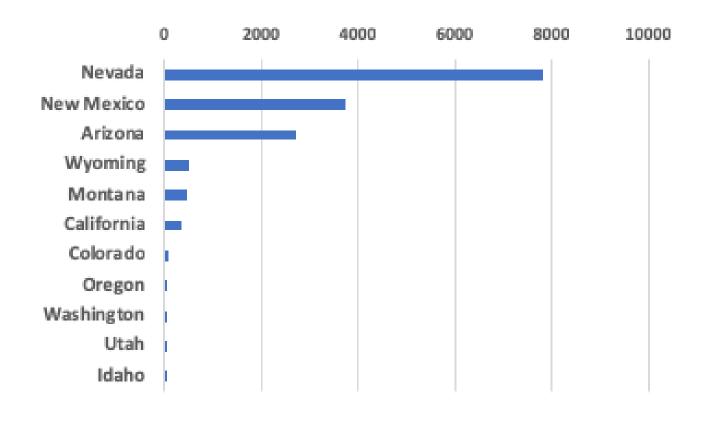


### **Electricity Consumption in the West**



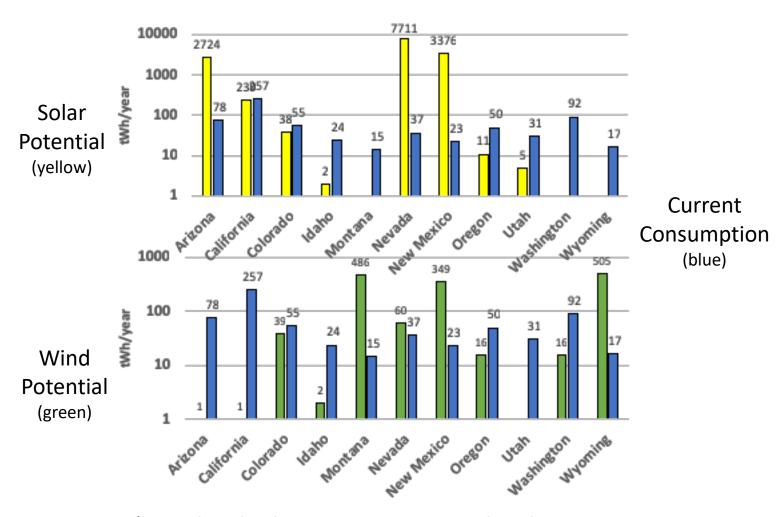


### Total Economic Renewable Energy Potential in the West





#### Solar and Wind Potential in the West



New Mexico's wind and solar economic potential is almost 200 times its annual electricity consumption.