Elements of a Transition to a Clean Energy Economy

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

Securitization
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.
Job losses are not an automatic consequence of climate policies, but the consequence of a lack of investment, social policies and anticipation\(^1\).

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.

\(^{1}\) A. Rosenberg, International Journal of Labor, 2010
An Assessment of New Mexico’s Energy Potential

Of 51 States/District

Total Energy Production\(^1\) #8 of 51
Average Electricity Price\(^1\) #33 of 51
Electricity Consumptions per capita\(^1\) #40 of 51
Total CO\(_2\) Emissions\(^1\) #32 of 51
Total CO\(_2\) Emissions per capita\(^1\) #13 of 51

Of 11 Western States

Total RE Production in the west\(^1\) #7 of 11
Total RE Production in the west per capita\(^1\) #3 of 11
Total UPV *Technical* Potential in the West\(^2\) #1 of 11
Total Wind *Technical* Potential in the West\(^2\) #2 of 11
Total UPV *Economic* Potential in the West\(^2\) #2 of 11
Total Wind *Economic* Potential in the West\(^2\) #3 of 11

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1 US Energy Information Agency 2017
2 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\(^1\)

New Mexico’s economic wind and UPV potential production is 3717 terawatt-hours (per year)\(^2\)

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.

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1 US Energy Information Agency 2017
2 National Renewable Energy Laboratory 2016
Economic Solar Resources / Total Electric Consumption

Illustration: FreeVectorMaps.com  Data: NREL
“Re-industrializing” via New Mexico’s Renewable Resources

Illustrative electric transmission line schematic
230kV and above. Source: US EIA
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 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

- California: 38%
- Washington: 14%
- Arizona: 11%
- Oregon: 7%
- Colorado: 8%
- Nevada: 5%
- Utah: 5%
- Idaho: 4%
- New Mexico: 3%
- Wyoming: 3%
- Montana: 2%
Total Economic Renewable Energy Potential in the West
New Mexico’s wind and solar economic potential is almost 200 times its annual electricity consumption.