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# INDUSTRIAL POLICY, EMPLOYMENT, AND JUST TRANSITION

#### **EXECUTIVE SUMMARY**

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# The Challenge

Achieving zero carbon will completely transform the ways that energy is produced and consumed in the United States. It will also initiate major changes more broadly throughout the U.S. economy and society. What is clear from the evidence is that large-scale job creation will certainly result in all regions of the U.S. economy through clean energy expenditures on both the supply and demand sides of this nationwide project, with budgetary levels in the range of about \$500 billion per year on average between 2021 – 2030. But it is also clear that these will not necessarily all be good-quality jobs or that these newly-created jobs will be broadly accessible to all population cohorts within the overall U.S. labor force—representation by women and people and communities of color is generally low, as is union membership.

The transition away from the fossil fuel-dominant energy system will also entail job losses. It will produce hardships for communities whose well-being is currently dependent on the vibrancy of the fossil fuel industries. These negatively impacted workers and communities will require significant transitional support. Just transition policies are certainly justified according to any standard of fairness. But they are also a matter of strategic politics. Without such adjustment assistance programs operating at a major scale, the workers and communities facing retrenchment from the clean energy transition project will, predictably and understandably, fight to defend their communities and livelihoods. This in turn could create unacceptable obstacles in proceeding with effective climate stabilization policies.

### **The Solution**

Achieving a just and equitable transition will require policymakers to consider and communicate the following priorities:

- 1. Driving U.S. and global CO<sub>2</sub> emissions to net-zero by 2050 is an ecological imperative.
- 2. Undertaking the myriad of investments that can create a clean energy economy should create large scale expansion of job opportunities as well as new business opportunities.
- 3. If managed effectively, building a clean energy economy will not entail increased costs for consumers. This is because, on average, the costs of delivering energy through clean renewable sources is already at rough cost parity with fossil fuels, and those costs are on



a long-term downward trajectory. Moreover, by definition, raising efficiency standards in buildings, transportation systems, and industrial machinery will entail energy savings and lower energy costs.

- 4. Building a clean energy economy can serve as a framework for advancing greater social equality.
- 5. Creating a clean energy economy will create losers. As was the focus of this chapter, this includes workers and communities whose livelihoods are presently dependent on the fossil fuel-based economy. Providing a just transition for these workers and communities must be a central focus of the overall clean energy transition project.
- 6. The other major group that will be losers in the clean energy transition are, of course, the companies, public and private, which now own and manage the world's fossil fuel energy assets. This chapter has not focused on a transition program for the fossil fuel companies and their owners.1 The broad point is nevertheless clear enough: the fossil fuel industry will have to experience near-total demise over the next three decades. There is no choice in the matter if we take seriously, as we must, the research produced by climate scientists.

The full set of investments to achieve a net-zero emissions U.S. economy between 2020 and 2050 will generate about 2.5 million jobs per year. This figure refers to jobs created through "direct" channels, such as manufacturing electric cars, and "indirect" channels—i.e. jobs along the supply chain to manufacture electric cars.

- Over four million jobs per year will be created if we also include jobs generated through "induced" channels—i.e. multiplier effects of newly-employed workers spending their earnings.
- Government policy at all levels should commit to industrial policies that will support
  domestic clean energy investments, especially in manufacturing. Effective industrial policies
  can increase total job creation by up to about ten percent.

## **Policy Recommendations**

It is critical that the large-scale expansion of employment opportunities that will result through clean energy investments actively seek to maximize the extent to which the jobs that are created will be good-quality jobs, and that these newly-created jobs are widely accessible to all population groups. This includes the workers who will have become displaced by the contraction of the U.S. fossil fuel industry. It also includes women and people and communities of color, groups that are now underrepresented in the main areas of clean energy employment. To advance two critical goals – an abundance of good quality jobs in the clean energy economy and wide access to these newly-created jobs—three major tools will be critical to achieving these goals, i.e. labor unions, job training programs, and affirmative action policies.

Public policy at all levels should commit to ensuring that jobs created through clean energy



investments are high-quality in terms of wages, benefits and working conditions, and equity.

- Strong labor unions and effective job training programs are needed to promote high-quality job opportunities.
- Additional policies are necessary to ensure that women and people and communities of color have equal access to clean energy jobs. Both groups are currently underrepresented in all areas of the U.S. energy sector.

The federal and state governments should enact just transition policies for workers and communities that are currently dependent on the fossil-fuel economy.

- About 12,000 workers per year in the coal industry will face job displacement between 2021 and 2030 as the coal industry is phased out as of 2030. About 34,000 workers per year in the oil and gas industry will face displacement as oil and gas are significantly phased down between 2031 and 2050.
- All displaced workers should receive pension and re-employment guarantees, as well as generous income, retraining and relocation support. The combined overall cost of such a generous program will be modest.
- Fossil-fuel dependent communities should receive major federal and state-level support to reclaim and repurpose land and generate new investment projects, including in a range of clean energy areas.

#### **Outcomes**

A large scale effort to decarbonize will result in 2.5 million new jobs per year as a result of direct and indirect impacts of new technologies. However, policymakers must ensure that the jobs created are high quality and accessible to all. Additionally, communities dependent on employment in fossil fuels must receive investment and support for a just transition. These combined efforts can overcome public grievances and build political will to achieve zero carbon goals.

#### References

1. See, for example, Pollin (2015), Chapter 8 on the transition for private fossil fuel corporations.

