

DAY ONE PROJECT

The Energy Transition Workforce Initiative

David Foster

January 2021

The Day One Project offers a platform for ideas that represent a broad range of perspectives across S&T disciplines. The views and opinions expressed in this proposal are those of the author and do not reflect the views and opinions of the Day One Project or its S&T Leadership Council.

Summary

The energy transition underway in the United States presents a unique set of opportunities to put Americans back to work through the deployment of new technologies, infrastructure, energy efficiency, and expansion of the electricity system to meet our carbon goals. Unlike many previous industrial transitions, the U.S. can directly influence the pace of change and create new jobs while old ones are phasing out. The next administration should launch the Energy Transition Workforce Initiative to put Americans back to work with well-paying, union jobs building a stronger, more climate-resilient nation.

The Energy Transition Workforce Initiative proposes a collection of actions that the incoming administration could enact on Day One and through the Administration's first year. This set of actions largely tracks the following three principles:

1. Utilize carbon-reduction investments - such as energy efficiency upgrades, infrastructure investments and electrification technologies - as economic development tools in under-served communities and those impacted by the loss of fossil-fuel jobs.
2. Expand our existing energy workforce training system to respond to all communities experiencing dislocations and high levels of unemployment, while also providing opportunity and training for the additional employees necessary to complete the energy transition.
3. Allocate \$20 billion over the next decade specifically to retrain the existing energy workforce with a focus on their impacted communities.

With success, the Energy Transition Workforce Initiative will ensure that the U.S. captures all the opportunities presented by the energy transition for the middle and working class.

Challenge and Opportunity

While energy jobs are found in every state in America, fossil fuel energy jobs and the infrastructure associated with them are highly concentrated. 60% or 960,000 of these jobs are found in just 15 states. 73% of all oil, coal, and natural gas production jobs are in just 10 states. Through the transition to decarbonization, these jobs and the communities that host them are at risk. Meanwhile, recent growth in the energy workforce has been concentrated in energy efficiency - 56% of which is in construction, 21% in professional services, 14% in manufacturing, 8% in wholesale trade and 1% in other services.¹

¹David Foster, Sade Nabahe, and Benny Siu Hon Ng, "Energy and Manufacturing in the United States," MIT CEEPR Working Paper, The Roosevelt Project Special Series (September 2020), <http://ceepr.mit.edu/files/papers/roosevelt-project/The-Roosevelt-Project-WP-8.pdf>.

This presents an opportunity for the Administration to support The Energy Transition Workforce Initiative by investing in energy efficiency activities that spur job creation in regions which will be hardest hit by the transition. Commercial and residential building and industrial energy efficiency programs can be rapidly expanded through the use of federal tax credits and the expansion of the DOE Loan Program Office as a backstop for state and local green banks. A significant expansion of energy efficiency finance will provide job opportunities, particularly in the construction, professional services, and manufacturing sectors, that can be targeted to communities facing economic dislocation. Matching the ramp-up in energy efficiency investment with similar expansions in the training capacity of apprenticeship programs in the construction and manufacturing sectors and degree training in energy professional services will be critical.

Plan of Action

On Day One, the Biden-Harris Administration should announce the Energy Transition Workforce Initiative at the White House to lead interagency efforts to spur job creation in geographies affected by industrial transition, along with high unemployment urban communities, through investment in energy efficiency, energy infrastructure, new technologies and skills' training. Accordingly, the initiative should lead efforts to:

Restore the Department of Energy's Energy Jobs Strategy Council (EJSC). The EJSC reported directly to the DOE Secretary in the Obama Administration and coordinated the delivery of technology assistance to states, communities, and industry councils to assist them in meeting decarbonization and economic development goals. The EJSC was expected to have a small staff of 8-10 at DOE and to serve as a pilot program to build out the Energy Workforce and Economic Development Extension Program described below.

Restore the interagency Energy and Advanced Manufacturing Workforce Initiative (EAMWI). Prior to the Trump administration, which deactivated it, EAMWI coordinated activities between the Departments of Energy, Labor, Education, Commerce, Defense and the National Science Foundation to harmonize planning and curriculum development for the new energy workforce. In addition to resuming those coordinative activities, the Biden-Harris administration should mandate that it produce quarterly assessments of the needs and opportunities in workforce training in response to the requirements of the energy transition.

Release data collection funding authorized by Congress for the DOE to begin production of the 2021 U.S. Energy and Employment Report (USEER). Congress authorized \$1.7M in FY2020 for data collection for the 2021 USEER; however, the money has not been spent.

Restore the DOE Labor Working Group under the direction of a Senior Advisor to the Secretary of Energy. The DOE Labor Working Group provided monthly guidance on how to implement high wage strategies in the energy sector while preserving jobs and reducing

DAY ONE PROJECT

greenhouse gas emissions. Member organizations included energy sector unions involved in the mining, manufacturing, construction, utility, and transportation industry sectors.

Establish an Energy Workforce and Economic Development Extension Program (EWEDEP) inside the DOE. Modeled after the Agricultural Extension Program, and in partnership with the National Labs, an EWEDEP should be established to provide technical advice on decarbonization to municipalities, states, and private sector businesses. Combined with the headquarters staff of the EJSC, this program would assist regional, state, local, and tribal governments in the development and implementation of decarbonization strategies that simultaneously create good local jobs. Initial cost would be \$20 million a year.

Establish an Appalachian Energy Efficiency Task Force with representatives from all stakeholder communities to design a roadmap for the widespread deployment of public building retrofits in Appalachian states. Appalachia has experienced the heaviest loss of jobs directly related to the energy transition underway in the U.S. and has some of the highest rates of unemployment and rural poverty in the country. On Day One, the Biden-Harris Administration should announce a pilot task force for Appalachia to lead the development of public building retrofits throughout the region as a job creation tool in partnership with labor union apprenticeship programs to create high road career pathways while decarbonizing the building sector. This task force and resulting program could be a model for future interventions.

After initiating these actions on Day One, the Administration must prioritize legislation establishing the Energy Transition Adjustment Assistance Program. The loss of some fossil fuel jobs in concentrated parts of the country will require some retraining of current employees to prepare them for new careers. The U.S. will need a program to provide income support greater than extended unemployment to recipients undergoing retraining. Such a program should learn from the shortcomings of the Trade Adjustment Assistance program by providing more supportive services. Based on two-year training costs and average participation rates of TAA-certified beneficiaries, a minimum of \$20 billion for worker retraining should be allocated as part of this effort.²

Conclusion

Unlike many previous industrial transitions which were driven by new technologies and market forces, decarbonization is driven largely by social policy interventions. Thus, well-planned responses, based around timely clean energy economic development investments can provide good jobs and economic opportunity for those displaced workers and affected communities. By restoring or extending clean energy tax credits such as 48C, 45Q, ITC, and PTC, attaching labor standards and domestic content rules, and expanding the lending authorities for the DOE Loan Program Office to include energy infrastructure and energy efficiency projects, America and American workers can benefit from the global push to decarbonize.

² Foster, Nebahe and Siu Hon Ng, 2020.

Frequently Asked Questions

What are the challenges of coordinating an interagency process to spur job creation at this critical time?

The main challenge is providing a timely economic development response to impacted communities before the most serious job losses have occurred. Our goal is to create a FEMA-like response in advance of the economic storm devastating some communities because of the loss of fossil fuel jobs. However, unlike FEMA, most federal economic development programs are not designed to respond to emergency job loss, and require annual appropriations and lengthy preparations.

How do you evaluate success? What are the core desired outcomes in two years?

The overall success of the Energy Transition Workforce Initiative will be measured by the number and quality of jobs created in the communities that are expected to be the hardest hit by the energy transition, the timeliness of the intervention, and the stability of the communities. Utilization rates of EWEDEP technical support for regions, state, local and tribal governments to develop implementation plans will also be a primary measure.



About the Author

David Foster is currently a Visiting Scholar at MIT and previously served as Senior Advisor to U.S. Secretary of Energy Ernest Moniz from 2014-2017 on energy, environmental, climate, economic development, workforce development and labor relations issues. During that period, he designed and implemented the creation of the Department of Energy's Jobs Strategy Council, an initiative that linked the department's technical and financial resources to a wide group of external stakeholders including state and local governments, private sector energy and manufacturing businesses, non-profits, academic institutions, and labor unions. He led the interagency effort to create the Energy and Advanced Manufacturing Workforce Initiative, which formally linked the Department of Energy with the Departments of Labor, Education, Commerce, Defense, and the National Science Foundation on workforce development issues.

Prior to working at the Department of Energy, Foster served as the founding Executive Director of the BlueGreen Alliance (BGA), a strategic partnership of 14 of America's most important unions and environmental organizations with a combined membership of 14.5 million. The BlueGreen Alliance is the country's foremost labor/environmental advocacy group on climate change policy solutions with a special emphasis on energy intensive industries, job creation, and the interchange between global warming and trade policy. Foster has spoken extensively on the subjects of climate change, economic development and the transition to a low carbon economy around the world, including the United Nations Environment Program Ministerial in Nairobi, Kenya, multiple UNFCCC events, and the German Green Party National Convention. He has testified before the U.S. Congress and Canadian Parliament on the linkage between jobs and climate change solutions.



About the Day One Project

The Day One Project is dedicated to democratizing the policymaking process by working with new and expert voices across the science and technology community, helping to develop actionable policies that can improve the lives of all Americans. For more about the Day One Project, visit dayoneproject.org