

How an energy jobs coalition can help the US economy bounce back

By Ernest J. Moniz

The chorus is growing louder: in addition to halting the increases in coronavirus cases, we need an energy stimulus package focused on rebuilding the economy. Job creation and infrastructure development will be key.

With unemployment filings reaching nearly 10 million, it is clear we are in the midst of an economic calamity leading to significant business closures and further job losses, despite the stimulus packages enacted by Congress to date. We need to create new jobs, protect the livelihoods of American people and ensure the future resilience of our economy.

In normal times and in crisis, we are completely reliant on energy, water, transportation, communications and finance infrastructures to keep our economy running. Energy has a special place in this critical infrastructure mix. The <u>Department of Homeland Security</u> describes it as the <u>"key enabler of all other infrastructures...</u> Without a stable energy supply, health and welfare are threatened, and the U.S. economy cannot function."

Within the energy sector, electricity - <u>the "uber"</u> <u>infrastructure on which all others rely</u> - deserves special attention. It is essential for running our hospitals, operating ventilators, charging our phones and computers and communicating via internet-enabled video conferencing - critical for our current makeshift economy.

The energy sector — in the early stages of a lowcarbon transition — has seen natural gas, renewables, storage and efficiency play a greatly expanded role over the last decade and is a powerful job creator. The recently-released <u>2020</u> <u>U.S. Energy and Employment Report</u> underscores this connection: while the energy and auto sectors make up 5.4 percent of the American workforce, they created 10.7 percent of all new jobs since 2015. Translation: <u>915,000</u> new jobs, over <u>40 percent of</u> them in energy efficiency alone.

This argues for a prominent position for energy in the next stimulus package. The federal efforts during the Depression of the 1930's and the Great Recession of 2008-2009 are noteworthy in this regard.

During the Depression, the Civilian Conservation Corps, Rural Electrification Administration, <u>Tennessee Valley Authority</u> and Bonneville Power Authority were established to repair and build infrastructure, initiate large scale hydropower for electricity generation and take electricity to every home and farm. Three of these programs were principally energy-related — the REA alone supported the formation of 800 rural electric coops and the construction of 350,000 miles of power lines.

The <u>American Recovery and Reinvestment Act</u> also had a significant energy focus. It kickstarted a rapid expansion of on-shore wind, initiated large scale solar deployment, supported the first commercial scale carbon dioxide capture and sequestration facility at a coal plant and laid the foundations for the development of "smart" energy systems — as well as creating a new approach to clean energy innovation, ARPA-E, which has <u>spawned over 80 start-ups.</u>

As the public and private sectors turn their attention to rebuilding our economy, we need to seed new industries that underpin our low-carbon future and build infrastructure aligned with that future. We don't need a physical "corps" or new federal organization as in the 1930s — our energy systems are largely operated by the private sector



and have vast infrastructures in place. But we do need an energy stimulus program built on the foundation of an "Energy Jobs Coalition" (EJC) to keep the focus on energy infrastructure modernization and job creation through 2021 and a platform for further job growth after that.

What programs might be supported by an Energy Jobs Coalition in a new stimulus package?

Clearly, immediate relief for modest income families must remain paramount, for example, by supporting additional low-income energy assistance through the <u>Low Income Home Energy</u> <u>Assistance Program</u>. Grants could also support electricity and gas distribution companies to enhance their energy efficiency programs, especially for low-income households and small businesses.

EJC-supported programs could include capital improvements that substantially increase energy efficiency in public buildings — courthouses, eity halls, etc. This is especially important for rural areas where declines in population and high unemployment have reduced tax bases. Federal buildings could be improved through an amped-up <u>Federal Energy Management Program</u>, saving money on utility bills that could be spent elsewhere.

In addition, the EJC should support grid infrastructure modernization. A cost-share program to automate substations, for example, would further enable distributed generation while helping to protect the grid from cyber-attacks. Modern energy systems should be designed to support job growth while remaining aligned with the active clean energy transition.

Programs should support the decarbonization of incumbent energy systems, such as natural gas, by providing cost-share funds to reduce natural gas flaring, produce renewable gas from landfill and agricultural waste. They should also support state grants for offsetting the cost to low-income consumers associated with replacing gas distribution systems that are leaking methane.

The coalition's focus could also include clean energy industry creation through both innovation and deployment investments. There are many candidates: <u>advanced battery technologies and</u> <u>long-duration electricity storage</u>, clean hydrogen supply and infrastructure, establishing <u>regional</u> <u>technology innovation hubs</u>, modular nuclear reactors, a new generation of carbon capture and <u>removal projects</u> — from power plants — industrial facilities and the air, offshore wind, integration of energy networks with artificial intelligence and big data capabilities, and more.

This should be paired with financing initiatives, such as renewable, advanced nuclear and carbon dioxide utilization and sequestration tax credits, an expanded loan program for supporting <u>state Green</u> <u>Banks</u> and clean energy for tribal lands and indigenous communities. In addition, perhaps the Clean Energy Deployment Administration which had bipartisan support a decade ago should be reconsidered.

Job creation in all of these areas should be underpinned by a network of private, public and union-supported apprenticeship and training programs that directly address the need for an expanded energy workforce. For example, the <u>Building Trades Union</u> alone offers training and apprenticeships at over 1,500 locations across the country.

While this is not an exhaustive list, it offers some examples of what an Energy Jobs Coalition could support in a new stimulus package — good for American workers, our economy and the planet.

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