## Responding to the Crisis: The Recovery and a Clean Energy Economy

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## **ABSTRACT**

COVID-19 has drastically impacted the US economy with one of the biggest impacts being unemployment. Like other crises in the past, the resolution of this crisis and the rebuilding of the economy will fall heavily on the hands of the US government. During this crisis, the oil and gas industry has seen a positive outcome through the heavy employment of lobbying. While the US government finds a solution to bring the economy and the country back from the impact of COVID-19, the renewable energy sector may be able to lobby to the US government similar to the oil and gas industry to receive some consideration in terms of economic solutions.

## **SUMMARY**

R&D sector of electric vehicle sector during the COVID-19 crisis is in danger like any other industries. Up to now, CDC filed over two hundred thousand infected people in the US. Ironically the COVID-19 pandemic has created significantly decreased global emissions but that happened with unpredictable crisis. We need to reboot our industry and clean energy should take a great role to be low-carbon society after the COVID-19 crisis.

- Tremendous number of people filed unemployment.
- 125,000 jobs in the solar business sector is in risk to disappear and 35,000 jobs from other clean business sector as well.

This is first potential global economic crisis which millennials will face. Currently, the system itself cannot be worked properly like when we faced 9/11, global financial crises, and health crises. We need to be more strategic and systemic to prepare a shot. This is a lesson for all of us. While we overcome this crisis and rebuild our economy, government needs to involve itself more into the clean business and climate change issue.

- President Trump's second stimulus bill mentioned infrastructure. It will be great idea to attach climate change perspective to this new infrastructure plan to mitigate climate risk.
- Energy consumption is declining, so we have much more oil, gas and biomass than any time before.

The oil and gas industry is lobbying quite aggressively to Trump. As a non-partisan organization, the renewable energy sector may also consider similar politics during this unprecedented era.

President Trump noted that during his discussions with Saudi Arabia and Russia, they
almost reached a consensus to decrease oil product 10% per day. This pressure is
attributed to the successful lobbying of the oil and gas industry.

Nuclear is another source we have to heavily consider when you move forward to emission free society.

 Advanced nuclear is absolutely important. If we need to really get net zero emission, nuclear will be needed in the portfolio. Nuclear will play an important baseload role in our 2050 energy portfolio.

Although climate change, and a low carbon society is an important mission, it is also important to utilize the proper solutions. For that perspective, we need to keep in mind social equity and diversity.

- Research showed that that black community had less chance of adopting community solar.
- To solve this issue, strategic federal investment should be the best option.

## **QUESTION & ANSWER**

**Q:** Are you working at all with the National Rural electric Coops to bring solar and wind to rural areas?

**A:** Not currently. However, I would love to. If you can reach out after this meeting, I love to discuss about rural community as well as minority community.

**Q:** How can the clean energy industry keep workforce diversity at the forefront while managing through an economic crisis?

**A:** That is good question. I can say, part of it is representation. Maybe a board of director can be diverse as an example. Second thing is, intentionally with your heart, go to untraditional place looking for employment. Go to black college or university at school of engineering. Reaching out to organization like the American Association of Blacks at Energy.

**Q:** A physician would not install a defective pacemaker to help a heart patient if a safer pacemaker was available and practical. So, why bail out the auto, airline, and other polluting industries on a business-as-usual basis when cleaner options are not practical but obviously better for the respiratory health of American and so more beneficial economically over the long term. Nobody is talking about turning our backs on the need to save industry jobs, but do you really think that clean energy advocates are in a weak position to try and "horse trade" for some areen advances in the next coronavirus bill?

**A:** I will defer from the political analogy and rather focus on the pacemaker analogy. I think the long-term nature of environmental problem is slightly different to analyze nature of current situation. There are opportunities to find new ways to build infrastructure with less polluting, greener. Some of the technologies are simply not there yet. Airlines for example, hydrogen or bio-fuel technology are promised technology for sure but to apply technology into airline industry, it is not ready. There are similar challenges to long term transportation like heavy trucks. Thus, there are certain benefit and future for less polluting technology, but we need to watch with patience that technology applies into various industry sector.

**Q:** I am curious if you can speak more about the implications of low oil prices on the future electric vehicles. What are the implications of sustained low prices on the future of EVs?

**A:** That is great question. If you asked that question 10 years ago, I probably have completely different answer. Because we have seen significant technological advance in battery, now battery EVs are very cost competitive in the global economy. If you look at where EU's regulations or China's policy, you can see global market is moving toward to the EV environment. There will be going to be more advantage to consumers.