

# Is this our climate's Moonshot Moment?

With the passing of the Bipartisan Infrastructure Bill and Build Back Better Act, the federal government and states are playing an outsized role in helping shape energy policy and providing much needed resources to help communities undergoing a just transition.<sup>1,2</sup>



An ecosystem of private companies is also chomping at the bit to transform the clean energy space.<sup>3</sup> This has us thinking, *has our industry entered its “moonshot moment,” using legislative action like a planet’s gravitational orbit to accelerate a second clean energy boom?*

That view is entirely possible. At least according to former Arizona Corporation Commissioner, **Kris Mayes**, who has been busy leading Arizona State University’s (ASU) Utility of the Future Center and is running for Arizona attorney general in 2022.

**Mike Li** catches up with Kris Mayes to talk about the movement of markets through regulatory policy, the role of environmental and social governance (ESG) as a driver of clean energy practices, and why Kris believes this might be the right time to take a second look at existing formulas for cost recovery and ratemaking.



**Kris Mayes, J.D.** is the Director of the Utility of the Future Center at Arizona State University (ASU) and a Professor of Practice at ASU’s School for the Future of Innovation in Society, College of Global Futures. Kris Mayes served on the Arizona Corporation Commission from 2003 until her term expired on December 31, 2010. She helped co-author the Arizona Renewable Energy Standard, which requires that by 2025 utilities must generate 15% of their overall energy portfolio from renewable sources like wind, solar, biomass, biogas, geothermal, and other technologies. The Standard contains the most aggressive distributed generation requirement in the country, requiring utilities by 2011 to acquire 30% of their energy from residential or non-utility owned installations, like rooftop solar panels on someone’s home or on a shopping mall. She also helped establish one of the most ambitious energy efficiency standards in the nation, requiring utilities to sell 22% less energy by 2020 than they would have under current forecasts. Kris earned her Juris Doctorate from Arizona State University. She holds a Master’s in Public Administration from Columbia University and a Bachelor of Arts in Political Science and Government from Arizona State University.



**MikeLi:** *We're in an unprecedented moment regarding federal investment in addressing climate change. Between the \$1.2 trillion Bipartisan Infrastructure Bill and the Build Back Better Act, what are your thoughts on how this legislation can help us achieve our climate change goals?*

**Kris Mayes:** The infrastructure bill was a great first start in terms of helping states meet their renewable energy, energy efficiency, and clean energy objectives. But Build Back Better is really a generational opportunity to advance clean energy and to combat an existential threat to our country and to the world in the form of climate change.

For the state of Arizona, Build Back Better represents an enormous opportunity to grow clean energy jobs to combat the serious air quality issues in Maricopa and Pima Counties and, where there are coal plants that are about to shutter, to assist communities in making the transition to a more prosperous economy. Coal impacted communities, like the Navajo Nation and places like Joseph City and St. John's, are all going to have to make this transition. Build Back Better will provide the resources they need to transition away from coal. That transition is happening across the west and it's going to hit these communities hard. They deserve our support.

**In the Obama Administration, when I was at the U.S. Department of Energy, we spent a lot of time trying to figure out how to help communities transition, with limited success. What are your thoughts on what works?**

**KM:** I run the Just Energy Transition Center at Arizona State University, which works with communities that are making this coal transition. What we're finding is that it's kind of a two-pronged approach. Number one, it works best when communities are thinking about this from a grassroots level and are designing their own futures for themselves—thinking through what makes sense for them from an economic development standpoint, post coal closures. But then we also need help from the federal government and from utilities to provide the resources that support the vision that communities create.

What we're finding in Arizona is that coal communities want to commit. They are fiercely independent and have a vision that includes clean energy, but they need our help in funding those visions. That's what's so transformational about Build Back Better and the infrastructure package; it has the potential to provide the resources at just the right time when these communities need it. These communities made Phoenix and Tucson possible, and frankly every other metropolitan area in each state that uses coal for cheap electricity. So, shame on us if we walk away from them at the time when they need support most.



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*In the absence of broader federal regulation, do you think we can hit our climate goals with just the help of the private sector who are pushing a lot of environmental and social governance (ESG) goals? Or do we really need the federal government to intervene?*

**KM:** I struggle with that one because I come at this from the perspective of somebody who believes very much in state action. I helped design Arizona's original renewable energy standard. I believe in the ability of states to move forward on clean energy and, at some point, we will need to have a coordinated federal approach to clean energy, akin to what was in the Clean Electricity Performance Program. If we take what is in Build Back Better, the resources for things like energy efficiency, renewable energy projects, transmission, and layer that on top of what states are planning to do to go 100% clean energy, we are starting to get something that could work.



*You sit on a variety of boards for different organizations. What have you learned from those experiences about how we should go about decarbonizing our industry?*

**KM:** I still sit on the Vote Solar board and, until recently, was on the Energy Foundation Board which I stepped down from to run for office. I've learned that there's real power in policy to kick start things like clean energy, which is good for our country, for our states, and for our people. I think that's what you saw in the 2000's and what you're continuing to see in the form of Build Back Better and the infrastructure plan—when you develop policy that guides utilities and clean energy companies in a certain direction, you can then sort of let them take it from there.



We established renewable energy standards in the 2000's that led to an explosion of job growth across western states and success in the decarbonization of our economies. We saw huge growth in energy efficiency, which has saved ratepayers across the west and across the country tens of billions of dollars. And then there is the development of an ecosystem of private companies around that clean energy. I think what is important is that you have this incredible opportunity to advance policies that lead to cleaner air and a better climate, but also expansion of jobs. There are not too many things that get you two-or-three times the return, so that is what I've learned in both government and in the work that I do with nonprofits.

*As you reflect on your time as a Commissioner for Arizona's Corporation Commission, what are other accomplishments that you are proud of?*

**KM:** I'm proud of the energy efficiency standard that we established in Arizona, which at the time was one of the best in the country and led to a savings of \$9 billion on behalf of ratepayers across our state. Second, our solar net metering rules, which led to 10,000 jobs in Arizona and the expansion and development of hundreds of companies.

Finally, a general focus on consumers. Public utility commissions, for the most part, were established to protect consumers. Now, protecting consumers equals advancing clean energy because it is the cheapest form of electricity that we can produce in America. The fact that we are at a point where clean energy is cheaper than everything else, including coal, is quite remarkable and a great achievement for everybody involved in policy back in the aughts and even before.

*As states think about how to align investments to achieve their climate goals, there is a recognition that a lot of the investments fall under the oversight of public utility commissions. How do you think about resilience relative to cost when there is a potential ratepayer impact?*

**KM:** I think the way to look at investments is by asking, 'compared to what?' For instance, when we think about hardening our electric grid and bolstering electric infrastructure to avoid wildfires, that is going to cost money. But compared to the enormous societal, human, and economic impact of devastating wildfires, it's not so expensive.

Back when we were establishing the renewable energy standard in Arizona, renewables were more expensive than fossil fuels. But we knew we needed to require utilities to invest in renewables to drive down the cost and get to the point we are today—where clean energy is the most cost-effective resource available. So, when I think about investments in infrastructure, and especially in the electric grid, I think about this compared to the alternative, and what would happen if we don't make these investments. The same goes for investing in coal-impacted communities and making sure they are taken care of. We can't walk away from these communities and leave them high and dry. There's a societal cost of walking away from them. We can't have that in this country.

**What should public utility commissions be doing to support electric vehicle growth and the decarbonization of the transportation sector?**

**KM:** Obviously there's a huge debate about how much the utility should be allowed to participate in terms of charging stations and rate-based infrastructure. I think that utilities must be involved at some level. Promoting their involvement in electrification of transportation is a good way to 'bear hug' them into the clean energy revolution, because we want them involved in a cost-effective way. And one way to get them involved is to promote the electrification of transportation, which increases overall load—they sell more electricity, we get cleaner air, and Americans get the opportunity to own electric vehicles.

The question really becomes, 'do you want the utilities to be able to rate-base the infrastructure related to transportation electrification?' And I think that must be decided on a state-by-state basis. I would say the answer probably is, some of it, yes. Especially in areas of the state where we know that the private sector isn't going to go. I would be very supportive of bringing the utilities in and allowing them to own some of that.



**Some of your work at ASU focuses on performance-based regulation, which a lot of people are suggesting is the future of utility ratemaking. Is this a short-term trend or long-term opportunity?**

**KM:** I think we're headed that way. Hawaii is in the throes of the first experiment, and I think they've done a fantastic job. We need performance-based regulation: we need to be incentivizing utilities to do more renewable energy, more energy efficiency, cleaner energy-based transmission, and distribution, and customer-sided solar. To do that we need to pay them to perform in those areas, rather than paying them to build big stuff, which is what they have historically done. We don't need to pay them to build big coal plants and gas plants anymore. We need to pay them to do decentralized and customer-focused energy. We need to incentivize them to decarbonize. Hawaii is leading the way and there are a couple of states that have ongoing dockets including California and Minnesota. I think that's where we must head. Americans want solar and energy efficiency.

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***You're running for attorney general. What are some of your policy priorities and how do you envision using the attorney general role to support decarbonization and meet our climate goals?***

**KM:** I want to be the first attorney general in Arizona history to make fighting climate change a top priority. We need to start a trend here, which is that every attorney general in America should be making fighting climate change a top priority. The attorney general's office in Arizona has an environmental division; many AG's offices do. When I'm elected attorney general of Arizona, on day one, I will appoint an attorney to be my climate director and focus our attention on advancing clean energy for the betterment of all Arizonans. We need to explore every possible way we can deal with our water shortages and droughts and our air quality issues—all of which are becoming acute in Maricopa County, where Phoenix is located.

I think you'll see me become very involved at the legislature. I intend to testify in front of the Corporation Commission on issues and I intend to be become involved in negotiations over the Colorado River water allocations. There are a few AG's, like Maura Healey in Massachusetts, who have done a lot and lead the way, but there is so much more that other states can do. Out here in Arizona, water and clean energy are two areas that are overwhelmingly supported by both Democrats and Republicans—both areas bring all Arizonans together and both things are important for a state that is so reliant on our ability to preserve our water supplies.



***Of all the things that you're seeing, what brings you the most hope or gets you most excited about ways we can meet our climate challenges?***

**KM:** What gives me the most hope is the overwhelming support for clean energy in action and on climate across the state of Arizona. Whether you're talking about Republicans or Independents or Democrats, most Arizonans want us to roll out more clean energy and combat climate change. They understand we're facing a water crisis in the West. So, it gives me hope to know that at the end of the day the voters of Arizona want to see us act.

Look at a place like PebbleCreek, a retirement community west of Phoenix. This is a community where the average age is probably north of 65. That is where you will find that one out of every three homes are solarized. It's a very conservative, very, very Republican community. What does that tell you? It tells you that Arizonans believe in the right to produce their own power, believe in clean energy, and they want to see us get something done. And that gives me hope. Solar energy in Arizona is not a partisan issue; it is something everybody wants to see more of, and I love that!

***Thank you, Kris. I appreciate you sitting down for this interview with us.***

**KM:** It's good to see you again. I'm glad you're doing well and looks like a great outfit that you're with. I hope we can get back together again soon.

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1. "FACT SHEET: Historic Bipartisan Infrastructure Deal" The White House, July 2021. <https://www.whitehouse.gov/briefing-room/statements-releases/2021/07/28/fact-sheet-historic-bipartisan-infrastructure-deal/>.

2. "President Biden Announces the Build Back Better Framework" The White House, October 2021. <https://www.whitehouse.gov/briefing-room/statements-releases/2021/10/28/president-biden-announces-the-build-back-better-framework/>.

3. "24/7 Carbon-Free Energy by 2030" Google Data Centers, 2021. <https://www.google.com/about/datacenters/cleanenergy/>.