



**Title: Innovation Beyond Politics: Opposing Congressional Candidates Team Up for Silicon Valley's Climate Future**

**By: Joby Bernstein and Peter Dixon**

*We are next-generation congressional candidates running for CA-16 here in Silicon Valley with backgrounds in tech investing and implementing climate solutions. We worked with Bay Area climate investors and founders to propose five policy solutions.*

## **Introduction**

The time is now. We are putting aside the politics of the CA-16 congressional race to advocate for a new course of federal action that should be led by this district's representative. We are both building our futures here and will be living in the Bay Area in 2050 when our air will be unhealthy for three months straight and our coastside will be flooded. Not only does America have only six years to mitigate the worst outcomes of climate change, but we are decisively behind when it comes to the nation's approach to climate adaptation.

We must lead. Silicon Valley is the birthplace of game changing technologies that disrupt the world and are doing so again in combating climate change. The Inflation Reduction Act (IRA) is the most significant investment of federal dollars to combat the climate crises in our history. Therefore, the most pressing question is now this: how do we overcome bureaucratic barriers that might otherwise deter trillions in private sector climate security investment from coming in to augment the \$370 billion in federal funding from the IRA?

### **I. Silicon Valley's Current Investments in Climate Tech**

The International Energy Agency states that 35% of the emission cuts needed to meet global 2050 climate goals will have to come from technologies that are not yet available.<sup>1</sup> Silicon Valley is, and always has been, the hub of new climate tech—especially within California's 16th Congressional District. Examples abound. Noon Energy, based in Mountain View, ensures that renewable energy may be available 24/7, 365 days a year, through their long-duration energy-dense battery.<sup>2</sup> Fervo Energy was started at Stanford and now delivers 24/7 carbon-free geothermal energy.<sup>3</sup> Mango Materials, also having its roots at Stanford, is a renewable bioproducts company that strives to be a world-leader in the bio-manufacturing revolution.<sup>4</sup> Mitra Chem is based in Mountain View and is commercializing iron-based cathode materials to enable

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<sup>1</sup> MIT Technology Review (<https://www.technologyreview.com/2023/12/02/1084059/climate-tech-startups-are-back-and-this-time-the-y-might-survive/>).

<sup>2</sup> Noon Energy (<https://www.noon.energy/>).

<sup>3</sup> Fervo Energy (<https://fervoenergy.com/>).

<sup>4</sup> Mango Materials (<https://www.mangomaterials.com/company/>).

mass market electrification in transportation and energy storage.<sup>5</sup> All of these innovative startups represent critical technologies on the frontier of climate tech.

## **II. Climate Tech: Private Funding Not Reciprocated by Federal Funds**

While Silicon Valley has long funded climate startups, federal support has historically lagged.<sup>6</sup> The "Cleantech 1.0" boom of 2006-2011 saw over \$25 billion in VC investment, yet many startups got stuck in the "valley of death" in the process of commercializing.<sup>7</sup> Today's "Cleantech 2.0," boosted by the Inflation Reduction Act, must learn from these mistakes. We must ensure emerging innovations can scale by tailoring policies to the long timelines and unique needs of climate tech while clearing bureaucratic hurdles that hinder innovation. With federal incentives closing the late-stage funding gap—and more deliberate legislation to combat slow process due to bureaucratic hurdles along with regulatory risk—America can build on Silicon Valley momentum to carry startups through the arduous journey from lab to global impact. Sustained, entrepreneur-focused policies are key to realizing the potential of current climate innovation.

## **III. Trillions of Dollars on the Sidelines**

While recent legislation like the Inflation Reduction Act has increased climate tech investment, capital is not yet flowing to startups in the most effective ways. The MIT Technology Review posits that \$213 billion in green investments took place in the 12 months following the passage of the Inflation Reduction Act.<sup>8</sup> Yet, investors cite scenarios where their startups are unable to make it to scale because they rely completely on a combination of VC and government funding to stay afloat. That is, they struggle to scale because they don't have a good working capital solution, for example, in the form of readily available concessional loans and revolving credit. Ultimately billions in climate dollars mean little if they don't quickly spur real-world solutions. Despite recent US efforts, China still leads global clean energy investment.<sup>9</sup> To maximize impact, climate policies must not just dedicate more resources but also carefully tailor funding mechanisms to the unique needs of innovators and climate investors. With fine-tuned, entrepreneur-centered programs and more deliberate funding streams, America can nurture the breakthrough technologies required to regain leadership in this new industrial revolution.

## **IV. Bureaucratic Roadblocks**

The Biden Administration has done an immense amount of good for the industry. Instead of citing federal roadblocks, investors stated that many roadblocks originate at the state and

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<sup>5</sup> Mitra Chem (<https://www.mitrachem.com/>).

<sup>6</sup> MIT Technology Review (<https://www.technologyreview.com/2023/12/02/1084059/climate-tech-startups-are-back-and-this-time-the-y-might-survive/>).

<sup>7</sup> B.Capital (<https://b.capital/from-clean-tech-1-0-to-climate-tech-2-0-a-new-era-of-investment-opportunities/>).

<sup>8</sup> MIT Technology Review (<https://www.technologyreview.com/2023/12/02/1084059/climate-tech-startups-are-back-and-this-time-the-y-might-survive/>).

<sup>9</sup> Carbon Brief (<https://www.carbonbrief.org/analysis-clean-energy-was-top-driver-of-chinas-economic-growth-in-2023/>).

local levels, and that the federal government has been very receptive to new climate technologies. At a state and local level, permitting is the largest and most pernicious roadblock. However, two federal areas stood out to investors and entrepreneurs alike. First, federal permitting timelines are the bane of any project existing in the physical world. A four year timeline to get a permit to build a new facility doesn't comport with the timelines startup businesses need to deliver value. Second, outdated regulatory frameworks entrench the advantages of incumbent technologies and stifle the growth of new ones. These are the two big areas that the below policies address.<sup>10</sup> Today, the average cleantech IPO is 12 years, due in large part to bureaucratic hurdles.<sup>11</sup> Overall, the length of time to commercialization must be reduced for climate startups.

## **V. Policy Proposals**

### **1. Streamline Government Grants for Eligible Startups: Bolster Existing Support for America's Climate Innovation**

To accelerate climate solutions from small businesses, Congress should expand the Small Business Innovation Research (SBIR) program by directing more funding towards climate and clean energy innovation. Historically, small companies pioneer transformative technologies before mass adoption. Better aligning SBIR with climate progress will keep America innovative and environmentally competitive. Additionally, Congress should create new forms of government funding tailored to the working capital needs of climate startups. The Department of Energy's Loan Programs Office is a good start to tailored funding, but it needs to be permanently funded and expanded. This would free up private venture capital to focus more on core technology development, rather than short-term cash flow. With the right policy adjustments, federal innovation programs can nourish the breakthrough climate solutions America urgently needs.

### **2. Improve the Lengthy Process: Reduce Timelines for Federal Permitting**

To prevent promising climate startups from languishing, Congress must expedite federal permitting processes which currently take years—a valley of death created by slow bureaucracy.<sup>12</sup> This can be achieved through additional staffing and resources for reviews, legislating tighter timelines and transparency, allowing programmatic approvals, and reforming dated laws like the National Environmental Policy Act. The Biden-Harris Permitting Action Plan has enacted some key improvements, but more reform is still needed to specifically target climate projects. For example, it still takes 4 years to get a climate project on the grid.<sup>13</sup>

Congress needs to do more by creating incentives for states, localities, transmission organizations, and public utility commissions to address local roadblocks. With efficient and predictable permitting frameworks, federal agencies can accelerate private investment into

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<sup>10</sup> Environmental Law Reporter  
(<https://law.stanford.edu/wp-content/uploads/2024/01/Dismantling-Roadblocks-to-a-Sustainable-Transition.pdf>).

<sup>11</sup> Medium (<https://medium.com/tdk-ventures/cleantech-2-0-why-will-it-be-better-this-time-1657e8c2edad>).

<sup>12</sup> Brookings  
(<https://www.brookings.edu/articles/how-does-permitting-for-clean-energy-infrastructure-work/>).

<sup>13</sup> Energy Markets & Policy, Berkeley Lab  
(<https://emp.lbl.gov/news/grid-connection-requests-grow-40-2022#:~:text=Interconnection%20requests%20now%20typically%20take,years%20for%20those%20built%20in>).

urgently-needed climate solutions. Sector-specific bottlenecks must additionally be cleared, like EPA well permitting delays deterring climate infrastructure projects. Comprehensive permitting process reform across all relevant agencies will unleash America's climate innovation potential.

### **3. Pathfinders in Federal Government: Give Startups a Bureaucratic Navigator**

To accelerate deployment of federal climate funding, the Departments of Commerce and Energy should create "bureaucratic navigator" programs. These would embed subject matter experts within private teams to help them successfully navigate complex application processes. This proactive assistance model has proven effective for the Department of Defense in adopting new technologies quickly. It should now be expanded across agencies critical to climate action, like the IRS for clean energy tax incentives. Additionally, these navigators can improve interagency communication and coordination on climate projects. For instance, the Inflation Reduction Act was the largest piece of climate legislation ever passed, offering up to \$370B in investments. However, many of the benefits come in the form of complicated tax deductions, which are nearly impossible for small businesses to utilize. Bureaucratic navigators are a simple solution to help more IRA benefits flow to the businesses to all businesses that can benefit from them. With bureaucratic obstacles cleared, federal climate dollars can reach innovative solutions faster. Hands-on federal guidance will help unleash America's climate progress potential.

### **4. Testing at Military Bases:**

The U.S. military's 25 million acres of land offer prime testing grounds for climate solutions. Congress should pass legislation designating portions of federal military bases as pilot sites for cleantech startups and green infrastructure developers. Real-world deployment at scale on these sites would validate new innovations like battery storage, microgrids, carbon capture, and drought-tolerant agriculture. Once small nuclear reactors advance to a point where testing is viable, remote military bases are an ideal place to do these trials because of their seclusion and pre-existing security. With the military as a built-in first customer, boosted by federal grants, these federal lands could catalyze private sector investment and accelerate climate progress. Leveraging existing federal assets in this way provides ready testing beds while minimizing costs and barriers.

### **5. Ending Subsidies for Petroleum: Necessary for Energy and for New Biomaterials and Other Industries**

To enable fair competition, Congress must phase out fossil fuel subsidies that prop up petroleum's stranglehold on the economy—especially for use cases outside of traditional fuel use. This anachronistic government support stacks the deck against emerging climate solutions and renewables. For example, unsubsidized bioplastics cannot compete on cost with subsidized conventional plastics. Ending petroleum subsidies will make climate projects more financially attractive to investors, driving capital influx into sustainable industries. Increased climate investment will then improve economies of scale and technology, reducing costs further. Shifting incentives away from fossil fuels will allow the long-term advantages of climate solutions to thrive in a level playing field no longer distorted by unfair government intervention. With

subsidies phased out, the best climate innovations can compete and win on their merits, unleashing America's full innovative potential.

## **VI. Conclusion**

With the help of Silicon Valley experts, we've highlighted 5 key areas where we see the need for policy reform at the federal level. Those policy proposals are as follows: (1) codify laws and bolster existing legislation to streamline government loans grants for eligible startups, so they can go where they're needed most; (2) execute comprehensive federal permitting reform so that eligible startups can get off the ground more quickly; (3) introduce bureaucratic pathfinders in multiple federal agencies; (4) set aside land on military bases for companies to test their pilot programs; (5) and end subsidies for petroleum in all industries. In our collective effort to address climate change, it's imperative that we also prioritize environmental justice. Our policies must foster equity, provide job opportunities, and actively engage with communities disproportionately affected by climate change.

### ***\*About the Authors Section\****

***Joby Bernstein*** is a climate investor, educator, and researcher. He has experience in climate investing across institutional asset management, growth equity, and venture capital. Having worked on the Hill and for state policy legislatures, Joby has helped shape climate legislation. He also started and led two corporate sustainability programs. Joby is running because he believes the solutions to climate change aren't that far out of reach. As Californians we have a front row seat to the effects of climate change. We have a lot of work to do to avoid the worst outcomes - but tackling big problems is in our DNA.

***Peter Dixon*** is a father, husband, and former Marine. He has extensive federal experience from his time in the Obama Administration's Pentagon and State Department. He also founded Second Front Systems, a software company that removes major bureaucratic roadblocks in the Department of Defense. Peter is running to represent CA-16 in Congress because he believes that America's best days are still ahead—but only if we choose the right path in fighting for and preserving democracy. Peter deeply believes in a better climate future. He also believes that a better future can only be achieved through deliberate policy reform and new legislation to aid private capital in coming up with solutions to seemingly intractable climate problems.