# Why what happened to Oppenheimer then is relevant now

Daniel M. Kammen

#### ABSTRACT

A renewable energy scientist who resigned from his position during the Trump Administration contemplates the similarities—and differences—between his situation and what happened to Oppenheimer in the 1950s during the McCarthy era.

Robert Oppenheimer was forced out of government service on specious grounds during a McCarthy-era purge. I did not experience anything like what J. Robert Oppenheimer did. But I did experience the cognitive dissonance that some Manhattan Project scientists may have felt, as they watched the United States go in a dangerous direction by developing thermonuclear weapons and sparking a nuclear arms race with Russia. The Trump administration's denial of climate change and climate science put me in the situation of choosing: Could one do more good on the climate front by staying in government, or by leaving and thereby calling out a national climate, energy, and social justice wrongturn?

The tension over service or conviction led me to ask myself: What does it mean, "To serve?"

This kind of question comes up surprisingly often in conversations among my colleagues, because many of the academics I work with across the science/policy/ activism nexus move in and out of government service as part of their normal career trajectories. Personally, I find public service is a natural—and highly logical extension of my research and a means to collaborate to bring about needed change.

I have served internationally, formally for the United Nations, as a contributing and then coordinating lead author for the Intergovernmental Panel on Climate Change, which shared the 2007 Nobel Peace Prize, and at the World Bank as senior technical advisor for renewable energy and energy efficiency. In addition, I have served on a number of state advisory and research boards.

I have also served in various federal roles: in the Clinton and Bush administrations (nuclear generation IV reactor review board); the Biden administration (senior advisor for energy and innovation at the US Agency for International Development); and in the Obama administration (on the US Environmental Protection Agency's National Environmental Policy Advisory Committee).

Perhaps the position I most valued and found to have had the most impact was as an unpaid appointment as science envoy in the US State Department. I was asked to serve in 2016, in the final year of the Obama-Biden Administration, under Secretary of State John Kerry, where I focused on climate and energy, with a regional emphasis on Africa and the Middle East. Science envoys are appointed annually, and my term extended until October 2017. Donald Trump was elected in November 2016-an event that shocked many who watched the election returns live as dawn struck in Marrakech, Morocco, where several hundred of us were in the US delegation to an international climate convention. I received anguished calls from friends and students around the world and back home at the University of California, Berkeley.

My resignation from the science envoy post was not something that I wanted to do. I was deeply immersed in work with several governments and countries in Africa and the Middle East, as well as universities and civil society groups that had requested my work toward their clean energy science, engineering, and policy goals. I felt our work was making a difference.

However, with every day in office, it became abundantly clear that not only was President Trump intent on destroying meaningful scientific research on climate and clean energy, but his efforts in other spheres were just as irresponsible and dangerous. Withdrawal from the Paris Climate Accords was an action I deplored, but so too were a wide range of other decisions—including his terming a number of nations "shit-hole countries," to seemingly praising racist and ultimately homicidal acts at an otherwise peaceful rally in Charlottesville,

**KEYWORDS** 

Oppenheimer; science-policy; McCarthy; climate denial; science; Trump



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Virginia. This is by no means an exhaustive list, but just a few of the low points from the full record of the 45th presidency. Not to mention his orchestrating an armed assault on the nation's Capital.

It became clear that despite my work I so very much valued, service in such an administration was, at minimum, hypocritical. My concerns over leaving were amplified by the requests from governments in Egypt, the Congo, Kenya, Kuwait, Morocco, Senegal, South Africa, South Sudan, Tanzania—and from universities and non-governmental groups. What they most requested were meaningful, extended partnerships to build technical, managerial, and financial capacity to invest in climate and social programs.

Ultimately, I made the decision to depart.

Not to over-state the case: I was a volunteer in government, in a position that is not Senateconfirmed. Further, mine was just one of several resignations from the State Department during the first year of the Trump administration. Many career diplomats and officials expressed concerns about the direction of US foreign policy under the new president.

In researching resignations I observed others' reasons, decisions, regrets, and impacts. In fact, the science-policy field has a number of valuable lessons. Several scientists protested by resigning from federal and national laboratory positions in response to the removal of J. Robert Oppenheimer's security clearance as the result of Cold War-era political persecution.

In a 1952 interview, Oppenheimer's friend, the professor of romance languages Haakon Chevalier, recounted being asked a decade earlier to potentially pass information about the Manhattan Project to the Soviets-our war-time allies. He had mentioned the failed Soviet attempt to reach out to Oppenheimer in the winter of 1942, who called it potential treason and flat-out refused to hear any more. Oppenheimer, did not, however, immediately report the incident to authorities in the intelligence community but waited a few months. This delay (and the fumbling explanation for it) ultimately led the US government to strip Oppenheimer of his security clearance a dozen years later-something that was later acknowledged to be a flawed decision. Sixty-eight years later, in 2022, the Biden Administration reversed the injustice that had been done to Oppenheimer-and an injustice it was, regardless of one's perspective on the outcome of the Manhattan Project.

In developing my letter, I also examined a number of other resignations, including:

\*Gen. Douglas MacArthur's 1951 farewell address: MacArthur was relieved of his command during the Korean War after publicly criticizing President Truman's policy decisions. In his farewell address to Congress, MacArthur famously declared, "Old soldiers never die; they just fade away."

\*John F. Kennedy's 1960 resignation letter from the Senate: In 1960, JFK resigned from the US Senate to focus on his presidential campaign. In his resignation letter, Kennedy expressed his gratitude for the opportunity to serve in the Senate and acknowledged the "difficult and critical times in which our nation lives."

I became convinced that resignation was the best way to serve both the US government and my conscience.

It is on this point, however, where I had the most ambivalence. Many government officials remain in their jobs despite serving in administrations with which they strongly disagree—and often highlight how they will endeavor to do all they can for the country by "working from the inside" to effect change to policies with which they disagree.

Ultimately the resignation letters I read convinced me that the greater value was to act out.

Most immediately before my action, the Presidential Commission on the Arts resigned en masse, with a letter that included the Acrostic "R-E-S-I-S-T" (O'Keefe 2017). This provided a natural template that I ran with. After drafting my letter, I shared it with a number of colleagues for comments, as well as with the new Secretary of State, Rex Tillerson (who was subsequently fired—via Twitter—by President Trump in March, 2018).

My letter (Figure 1) generated a range of responses (Figure 2) and went viral in just a few hours. To the amusement of my daughters, for a brief "15 minutes of fame" I was out there with as many comments per hour as Taylor Swift. Amusingly, several reporters opened their inquiries and interviews with the question: "Was it intentional?"

In the aftermath, I received a great deal of support but also a range of very ugly and worrying hateful messages, including many whose obscenity-laced statements echoed variations of "may the door hit you on the way out" and "good to get you off the federal payroll" (regarding my unpaid position).

Six years later, what have I learned? Quite a lot, actually.

First, it was heartwarming to see the number of colleagues in government service who commented that my decision empowered them to push harder for the clean energy transition.

Second, the response to my letter helped some to see more clearly how climate and clean energy could become central in the political dialogue. This is DIRECTOR, RENEWABLE AND APPROPRIATE ENERGY LAB (RAEL) BERKELEY, CA 94720-3050 URL: http://rael.berkeley.edu TWITTER: @DAN\_KAMMEN DANIEL M. KAMMEN PROFESSOR AND CHAIR, ENERGY AND RESOURCES GROUP PROFESSOR OF PUBLIC POLICY IN THE GOLDMAN SCHOOL PROFESSOR OF NUCLEAR ENGINEERING

August 23, 2017

Mr. President,

I am resigning from my position as Science Envoy for the Department of State of the United States. Since 1996, I have served the Departments of Energy, the US Environmental Protection Agency, and the State Department in a number of roles. Working closely with the talented teams at State Department Headquarters and at U. S. embassies abroad, we have built significant partnerships in North and East Africa, and in the Middle East, around shared visions of national security, job creation in the U. S. and sustainable energy.

My decision to resign is in response to your attacks on core values of the United States. Your failure to condemn white supremacists and neo-Nazis has domestic and international ramifications. On this issue, I stand with the unequivocal and authoritative statements of Charlottesville Mayor Mike Signer, Virginia Governor Terry McAuliffe, Ohio Governor John Kasich, Senator John McCain, Congresswoman Ileana Ros-Lehtinen, Governor Arnold Schwarzenegger, Presidents George H. W. Bush and George W. Bush, Dr. Cornel West, Linda Sarsour, the Palestinian-American activist and one of the organizers of the Women's March, and many others.

Particularly troubling to me is how your response to Charlottesville is consistent with a broader pattern of behavior that enables sexism and racism, and disregards the welfare of all Americans, the global community and the planet.

Examples of this destructive pattern have consequences on my duties as Science Envoy. Your decision to abdicate the leadership opportunities and the job creation benefits of the Paris Climate Accord, and to undermine energy and environmental research are not acceptable to me.

Acts and words matter. To continue in my role under your administration would be inconsistent with the principles of the United States Oath of Allegiance to which I adhere.

Character is vital in leadership. I find particularly wise the admonition of President Dwight D. Eisenhower, who cautioned that, "A people [or person] that values its privileges above principles soon loses both."

Herein, with regret, I resign. I deeply respect and value the work of the many fine people I have encountered in our federal agencies and will miss the opportunity to work with and support them. Your actions to date have, sadly, harmed the quality of life in the United States, our standing abroad, and the sustainability of the planet.

Sincerely,

Professor Daniel M. Kammen Science Envoy, U. S. State Department (former)

**Figure 1.** Resignation letter posted on Twitter, and sent through official government channels to the Secretary of State and President Trump on August 23, 2017.

a more complex issue given the large and important history of environmental activism. Che Guevara (1965) said: "The revolution is not an apple that falls when it is ripe. You have to make it fall." Now, of course, we are seeing far more courageous climate activists in many settings, and in particular among the incredible youth climate and environmental justice leaders. I do think that there is a key lesson to be learned in the decision to rescind the denial of Robert Oppenheimer's security clearance. We all must evolve and address new challenges by, in part, revisiting our past in light of new data, new challenges, and new opportunities.

Since 1999 I have been a coordinating lead author for the Intergovernmental Panel on Climate Change—

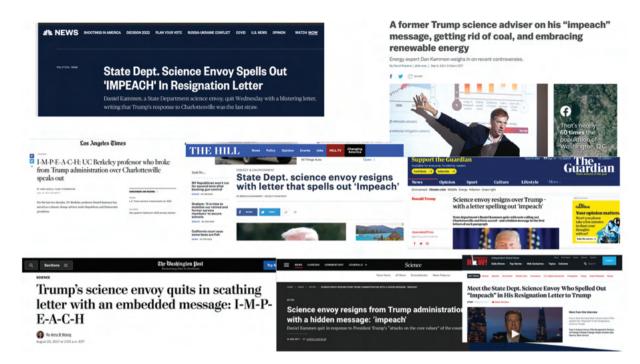


Figure 2. Collage of coverage of "I-M-P-E-A-C-H." Source: Dan Kammen.

which shared the 2007 Nobel Peace Prize for work detecting and then analyzing pathways to address the climate crisis. In 1999, the science of the climate crisis was clear to most although the economics and politics of the crisis was less clear. Now we have seen the first few waves of climate damage: massive fires; heat waves; dramatic changes in arctic ice and in the ocean. Huge new risks await us in the anthropogenic greenhouse, including food crises, disease, migration, ecosystem collapse, and more. We have known of climate solutions for years, and today-thanks to materials science, deployment policies, and market transition in the solar, wind and energy storage fields -it is now cheaper to build a new clean energy power plant than to operate an existing fossil-fuel power plant (Mathis 2021). It is far cheaper to build and operate a new solar or wind plant than to run an existing coal-fired power plant-information that should dramatically accelerate the arrival of the clean energy world we should have. We need other forces and motivations.

Much research today is focused on the joint challenges of energy decarbonization and on social justice (Sunter, Castellanos, and Kammen 2019). It is clear, scientifically and socially, that we cannot solve the climate crisis without recognizing and addressing the crisis of inequality and marginalization in society. Similarly, we cannot address our huge social challenges without recognizing how unaffordable energy and repressive institutions continue to exclude much of humanity from the meaningful participation we need to face the challenges ahead.

The return of Oppenheimer's security clearance, even posthumously, shows that humanity can evolve. Politically based opposition to new ideas-like the climate "solutions science" that defines much recent work -can become central to new approaches to challenges (Bailis, Ezzati, and Kammen 2005; Kammen and Dove 1997). We must pursue both the exciting new "cutting edge" science and that which seems "mundane" to some, such as efficient heat pumps, clean cooking, making clean energy services available to all (not just the rich), protecting biodiversity, and building social equity into both the built environment and in how we see and restore nature. Even out of office, Oppenheimer's voice was effective and inspiring, as those who have stepped away or been removed for political reasons still have much to contribute as we address complex security, climate, and justice issues that we have faced, that we face, and the challenges to come.

#### **Disclosure statement**

No potential conflict of interest was reported by the author(s).

### Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

#### Notes on contributor

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