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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

NEETA THAKUR, et al.,

Plaintiffs,

v.

DONALD J. TRUMP, et al.,

Defendants.

Case No. 3:25-cv-4737

DECLARATION OF PLAMEN ATANASSOV

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I, Plamen Atanassov, declare as follows:

1. I have personal knowledge of the facts contained in this declaration and, if called as a witness, could and would testify competently to those facts.

2. I am the Chancellor's Professor of Chemical & Biomolecular Engineering at the University of California Irvine (UCI). I also hold a joint/courtesy appointment in Materials Science & Engineering at UCI. A true and correct copy of my abbreviated curriculum vitae is attached as **Exhibit A**.

3. I earned my MS in Chemical Physics & Theoretical Chemistry from the University of Sofia (Bulgaria) in 1987. I earned a Specialization in Bio-electrochemistry from Frumkin's Institute of Electrochemistry in Moscow (Russia) in 1988. I completed a PhD in Chemistry and Physical Chemistry from the Bulgarian Academy of Sciences in Sofia in 1992 (degree conferred in 1995).

4. I moved to the United States in 1992 to join the University of New Mexico. I began as a researcher; became a faculty member; and then became an Associate Dean for Research. I joined the faculty at UC Irvine in 2018. Further details of my academic, research, and institution-building trajectory are in the Biosketch attached as **Exhibit B**.

5. My work encompasses several technical fields related to innovation in engineered materials, development of novel electrocatalysts for fuel cells, and design of new materials and technologies for power production, energy conversion, and storage. I have published more than 490 peer-reviewed papers that have collectively been cited more than 45,000 times.

6. I am an inventor in 67 U.S patents, many of which have been licensed and form the core of various catalyst products and catalyst processing and integration technologies.

7. I am a Fellow of the National Academy of Inventors, the Electrochemical Society, and the International Society of Electrochemistry. I am also the current President of the International Society of Electrochemistry.

8. At the international level, I serve on the advisory boards for several large EU and national programs for electrochemical energy conversion and storage and for decarbonization

technologies in Bulgaria, the Czech Republic, Hungary, and Germany.

9. Much of my research is funded by federal awards. My own research, and that of graduate student participants in my laboratory, has been financially and otherwise materially harmed by the Department of Energy's (DOE) abrupt termination of three funded projects in October 2025.

Terminated award 1: Cathode catalysts
(Assistance award # DE-EE0010751)

10. On December 1, 2022 in response to DE-FOA-0002792, UCI submitted a proposal to DOE's Office of Energy Efficiency & Renewable Energy (DOE-EERE) for a project titled *Advanced Low-PGM Cathode Catalysts with Self-Healing Properties for High Performing and Highly Durable MEAs*. This proposal followed submission of a Concept Paper to DOE on October 11, 2022 that yielded an invitation to submit a full proposal by December 1, 2022. The proposal contemplated collaboration among my research group, the research groups of Professors Vojislav Stamenkovic (the PI), Iryna Zenyuk (Co-PI) (both at UCI), and private sector partners and technology validators, to create a major fuel cell catalyst innovation locus. Encompassing catalyst design and synthesis, the project aimed to develop cutting-edge catalysts for integration into fuel cells. A true and correct copy of our funding application is attached as **Exhibit C**.

11. On September 13, 2023, UCI received an Assistance Agreement for Award DE-EE0010751, *i.e.*, received confirmation that DOE would fund this project. The period of performance was delayed until October 1, 2024. A true and correct copy of this Agreement from DOE is attached as **Exhibit D**.

12. On October 2, 2025, DOE informed UC Irvine's sponsored projects office that our award was being terminated. The termination was confirmed in an October 9, 2025 letter stating that the termination was effective as of that date. As grounds for the termination, DOE stated only that the agency had reviewed our award for compliance with its May 14, 2025 policy "Ensuring Responsibility for Financial Assistance," and found that it was "not consistent with this Administration's goals, policies and priorities." The letter continued:

More specifically, the Department has determined:

- *This project does not effectuate the Department of Energy's priorities of ensuring affordable, reliable, and abundant energy to meet growing demand and/or addresses [sic] the national emergency declared pursuant to Executive Order 14156.*

I am utterly perplexed by this characterization, because our project aimed simultaneously to (a) lower the cost of hydrogen fuel cells ("affordability"), and (b) make feasible broader deployment of this energy technology ("abundance"), while also increasing U.S. market share and indeed creating the possibility of market dominance in this energy domain (a key thrust of the cited Executive Order).

13. A true and correct copy of the DOE award termination letter is attached as **Exhibit E**.

14. The direct and indirect costs (funding loss) to my research group associated with this termination is $500,000. This figure encompasses a $57,000 loss of summer salary for myself, and loss of financial support for two UC Irvine PhD students essential to this project's execution.

15. An important illustration of the effect of this termination on the U.S. public is that our team is not able to demonstrate in a technologically relevant manner the most active and durable catalyst proposed in this program. We will also be unable to integrate this catalyst with specialty carbon materials. Such technology would have launched the first competitive U.S. catalysts in the fuel cell technology market. The current market consists exclusively of imported catalysts made by British, Belgian, German and Japanese companies. Even in its nascent stage, our project was demonstrating catalytic performance superior to any others, and could have been a base of U.S. domination of this market segment.

Terminated Project 2: Novel carbon supports for metal catalysts for fuel cells (Assistance award # DE-EE0011347 to Cabot Corp., UCI Sponsor Award # 228188)

16. On September 24, 2024, the Cabot Corporation (Boston, MA) received a DOE Assistance Agreement for the Award DE-EE0011347 for a project titled *BIL-Scalable, innovative manufacturing process for novel carbon supports for metal catalysts for MDV/HDV PEM fuel cells* in which I and a Co-PI, along with my UCI colleague Prof. Iryna Zenyuk, were

contemplated to have a substantial role. Although I do not have access to the full text of Cabot's application (which contained substantial confidential business information), I do have the Statement of Project Objectives (SOPO) that constituted the core of the agreement, and the resulting DOE Assistance Agreement. True and correct copies of these documents are together attached as **Exhibit F**.

17. This project represented the opportunity to actualize a line of research contemplated since at least 2010 that involves use of specifically designed carbon materials (in which Cabot Corporation is a global leader) in innovative, scalable manufacturing of catalysts. More specifically, the project's aim was to produce the first industrial-scale, U.S.-manufactured fuel cell catalysts that would be able to fulfill the requirement for 30% "Made in USA" content (a percentage calculated based on manufacturing costs), which enables clean energy projects to receive bonus tax credits under the Inflation Reduction Act.

18. A true and correct copy of the UCI Statement of Work, which constitutes the sub-set of the Cabot Corporation SOPO tasks for which UCI is responsible (and that support my work and that of postdoctoral associates and PhD students working on this project), is attached as **Exhibit G**.

19. On October 2, 2025, DOE issued a termination letter to Cabot Corporation for this project, effective immediately. A true and correct copy of the termination notice as transmitted to me is attached as **Exhibit H**.

20. The reasons DOE provided for the award termination were verbatim identical to those in the termination for my cathode catalysts project. Indeed, the two letters even included the same grammatical error (see [sic] notation in ¶12, above).

21. As with the cancellation of the cathode catalysts project, the stated reason for the termination is nonsensical to me. In the Cabot project, too, our team's aim was to increase the availability, reliability, and domestic production of a nascent source of clean energy (H_2) through improvements in catalyst design.

22. The direct and indirect costs (funding loss) to my research group associated with this termination is $727,000. This figure encompasses an $85,500 loss of summer salary for

myself, and loss of financial support of two PhD students essential to this project's execution.

23. As important, we are not able to develop and deploy innovative catalysts for fuel cells that were fully based on U.S.-manufactured carbon materials and to engage in an effort that would have established fuel cell catalyst production, integration, and device manufacturing in the United States.

Terminated project 3: ARCHES hydrogen (H2) hub
(Assistance award # DE-CD0000041)

24. I am one of ten researchers listed as a Co-PI (Principal Investigator) on a major proposal submitted to DOE in April 2023 by the nonprofit Alliance for Renewable Clean Energy Systems (ARCHES) in response to a Funding Opportunity Announcement issued by DOE's Office of Clean Energy Demonstrations (OCED). ARCHES is a public-private nonprofit corporation founded by the UC system, the CA Governor's Office of Business and Economic Development, and the nonprofit Renewables 100 Policy Institute. Its goal is to unleash dramatic growth in hydrogen production and consumption by 2045 to decarbonize the world's energy sources. A specific sub-goal is to develop and commercialize at scale the use of hydrogen in the transportation sector (vehicles/buses/planes/ships), which is America's largest source of greenhouse gas emissions.

25. A true and correct copy of the public version of this submission, from which confidential business information has been redacted, is attached as **Exhibit I**.

26. On October 11, 2023, DOE-OCED informed the ARCHES project team that it had been selected for an award and was to negotiate its contours with OCED. A true and correct copy of the correspondence memorializing this selection is **Exhibit J**.

27. As a result of months of negotiations with DOE-OCED, in July 2024 ARCHES received a very significant Financial Assistance Award to create the California Hydrogen Hub. The award contemplated was "up to $1.2 billion," with a firm commitment of an initial "Phase 1" award of $30 million, and up to $186 million available thereafter. A true and correct copy of the Awardee Fact Sheet memorializing DOE's financial commitment to ARCHES is attached as **Exhibit K**.

28. Phase 1 of the ARCHES project, described in the Awardee Fact Sheet, was to be an 18-month process of planning, design, and community and labor engagement, towards the hub's ultimate goal of decarbonizing annual emissions equivalent to pulling 444,000 gas-powered cars off the road. This was to be achieved by, among other innovations, equipping three large California ports (Oakland, LA, and Long Beach) with hydrogen-powered cargo-handling equipment; powering 5,000+ fuel-cell electric trucks and 3,000+ fuel-cell electric buses with hydrogen; and developing a first-of-its-kind hydrogen-powered marine research vessel at UC San Diego's Scripps Institute of Oceanography.

29. In addition to advancing hydrogen fuel technology and dramatically reducing greenhouse gas emissions from transportation operations, the ARCHES H2 hub would have improved air quality in port-adjacent communities by displacing existing diesel-powered equipment; would have reduced truck and bus emissions of particulate matter and smog-forming chemicals; and in the case of the Scripps H2 marine vessel, would have reduced water and noise pollution from oceanographic research vessels.

30. I have been involved in ARCHES from the earliest stages of its conceptualization, as befits my career-long work in clean energy development generally and advancing hydrogen fuel cell technology specifically. A true and correct copy of my letter of commitment to DOE for this project is **Exhibit L**.

31. On October 1, 2025, the Department of Energy wrote to the Chief Technology Officer of ARCHES, Adam Weber, to announce that ARCHES was being terminated, effective immediately, and that all project work must cease. The letter stated that the assistance award "did not pass Standards" of a newly-created "Portfolio Review Process Committee" at DOE and thus could no longer be supported. The "Standards" were not provided to us, and the "Portfolio Review Process" was never explained. A true and copy of the DOE letter of termination, as circulated by Dr. Weber to the ARCHES research team, is **Exhibit M**.

32. On October 11, 2025, Dr. Weber sent an administrative appeal letter to DOE questioning the basis for the ARCHES termination. The letter described the fiscal soundness of ARCHES; the project's significant progress to date (*e.g.*, "ARCHES has established [a]

comprehensive market network across California's hydrogen ecosystem, with 33 partners advancing 150 distinct projects representing over $12 billion in total infrastructure investment" [Appeal Letter, p.3]); and the responsiveness of the transportation sector to the imminent development of clean hydrogen (*e.g.,* "13 transit agencies [are] collectively planning to deploy over 1,000 fuel cell electric buses supported by comprehensive hydrogen fueling infrastructure" [*ibid.*]). The appeal letter argued that there was "no legal justification or contractual basis for termination of the award and revoking of the remaining balance on the obligated $30M Phase 1 funding prior to completion of Phase 1 and continuation application review"; noted that "this abrupt termination will result in irreparable harm"; and urged a response by October 21, 2025 as to whether the termination would be held in abeyance or rescinded. A true and correct copy of the Appeal Letter is attached as **Exhibit N**.

33. As of today, ARCHES has received no response from DOE. Thus, the project is effectively terminated.

34. I am aware that on October 15, 2025, more than forty members of Congress wrote to Energy Secretary Chris Wright to "strongly condemn the U.S. Department of Energy's unlawful cancellation of its funding agreement with the Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES)"; to demand a rescission of the termination; and to demand a written explanation of DOE's actions by October 29, 2025. A true and correct copy of this Congressional Letter is **Exhibit O**.

35. I am unaware of any response to these congressional demands.

36. Beyond my personal and professional distress at the instant, unforeseen, and chaotic unravelling of ARCHES and the many partnerships I have worked for years to cultivate, I have been monetarily and materially harmed by DOE's decisions to eliminate project funding. Beyond the current small stipend I received for travel and other expenses related to ARCHES work in 2025, I had committed to in the future serve as Senior Advisor for Business Development to ARCHES. I was expected to negotiate an up-to-0.5-FTE transition to ARCHES (with associated salary and increase) so that I could actively participate in establishing ARCHES operations. Accordingly, the ARCHES budget has a line-item associated with my anticipated

future services.

37. Among my core tasks was to be developing for ARCHES a Hydrogen Technology Certification for the State of California (and ultimately, for the whole United States) as a public-private partnership that could provide a stable source of future funding for ARCHES in the form of a direct industrial revenue stream. Although I cannot place an expectation figure for my personal monetary interest in this venture, this would have been a significant career achievement. Still more important, it would have made a major contribution to the public by helping to develop a sustainable financing mechanism for a sustainable fuel source.

38. As a result of the three DOE project funding terminations that I and my research collaborators have experienced—each without warning or meaningful explanation—the public will lose significant benefit from its research investment to date, and the United States will squander the opportunity to be a global leader in emerging energy technologies.

39. As a vivid example of lost public benefit: UCLA and UC Irvine recently co-hosted a workshop at UCLA's California NanoSystems Institute that focused on accelerating clean hydrogen technologies in time for deployment at the Los Angeles Olympic and Paralympic Games in 2028. Invited participants in this "Olympic Hydrogen & LA28 Sustainability Workshop" included faculty from UCLA, UC Irvine, UC Riverside, UC Berkeley, and UC Merced. Attendees emerged with enthusiasm for establishing hydrogen as a core component of LA28's sustainability legacy; an understanding that early demonstration fleets at this U.S. Olympics could showcase the feasibility and reliability of hydrogen power; a consensus that ARCHES should be the face and convenor of parties in this initiative; and an appreciation that procurement and infrastructure planning must begin immediately to meet 2028 deadlines.

40. Were ARCHES to be revived through a reversal of the program's termination, I would eagerly re-engage with it and endeavor to deliver on hydrogen's immense promise for California's upcoming Olympics and beyond. I would likewise enthusiastically re-engage with the other catalyst-related projects that DOE has summarily terminated were the agency to reinstate those research awards. I have trained expressly for and dedicated my career to advancing the development of novel energy technologies, and hope that I can continue to make contributions

to American innovation, energy self-sufficiency, and global competitiveness.

I declare under penalty of perjury under the laws of the State of California and the United States that the foregoing is true and correct.

Executed this 22nd day of November, 2025, in Irvine, California.

Signed by:
6007288C26EA47A...
Plamen Atanassov