August 22, 2025

Attn: Address specified in the RFE notice

RE: Response to Request for Evidence
Petitioner/Beneficiary: Sara Sultan
Type of Petition: Form I-140
Receipt Number: [redacted]

Dear Officer:
This letter is submitted in response to the Request for Evidence letter dated June 3, 2025 (hereafter the "RFE").

USCIS has noted that the beneficiary "intends to work as a Senior Staff Scientist." This designation is understood as a generalized reference rather than a comprehensive description of Dr. Sara Sultan's specialized role and field of endeavor.

Please note that the Petitioner's field of endeavor is **Integrated Energy Systems for Efficient Buildings**, with a specialized focus on **thermal energy storage technologies and building energy standards**. This highly technical and multidisciplinary field demands advanced expertise in energy innovation, system integration, and senior-level scientific and policy advisory functions that far exceed the generalized label of "Senior Staff Scientist."

The critical significance of these technologies is explicitly affirmed by authoritative U.S. government sources. For example, the U.S. Department of Energy's Building Technology Office (BTO) states:

> *"Improving the energy efficiency of buildings is critical to lowering energy costs, ..., improving grid reliability, and making residential and commercial buildings more comfortable and affordable for all Americans."*
> ***(Exhibit 1.1(a))***

Dr. Sultan's work on improving buildings efficiency and grid reliability is central to BTO's mission. The office of Energy Efficiency and Renewable Energy (EERE) further emphasizes the importance of innovative technologies and processes that are improving American life:

> *"The growing market for technologies that decrease energy costs, make energy consumption more efficient, ... presents a generational opportunity to stimulate economic growth, boost America's energy independence, and improve the health and well-being of the American people."*
> ***(Exhibit 1.1(b))***

Dr. Sultan's work on integrated energy systems (IES) and thermal energy storage (TES) not only reduces energy cost and improve comfort and health of Americans, but is considered a critical emerging technology. The TES subprogram states:

"TES systems can improve energy reliability in our nation's building stock, lower utility bills for American consumers and businesses, and protect people during extreme heat and cold events and improve their living environment."
(Exhibit 1.1(c))

The *Integrated Energy Systems Roadmap*, developed by the U.S. Department of Energy (DOE) national laboratories, further notes:

"Thermal storage will be a key component in IES as both a buffer between processes and as a contributor to the electricity market."
(Exhibit 1.1(d))

Additionally, the DOE's ARIES Program supports practical deployments from community energy needs to technology developers and service providers:

"Through programs like Energy to Communities, DOE, NREL, and other national laboratories are working together to provide communities access to ARIES assets to help clear obstacles to reaching their energy goals.."
(Exhibit 1.1(e))

Federal legislative priorities align with these findings. Senate Report 116-199 highlights in Section 2:

"Subsection (c) sets forth the Program's authorized research areas, including technology innovation to further the expansion of emissions-reducing energy technologies to accommodate a modern, resilient grid system, and more effective thermal energy use, transport, and storage."
(Exhibit 1.2(a))

Dr. Sultan serves as an **Electric Generation Program Specialist** at the **California Energy Commission (CEC)**, a highly specialized **Senior Advisor** role in which she leads interdisciplinary research and regulatory initiatives to advance the deployment of integrated energy technologies. Her work contributes directly to California's aggressive energy efficiency and building decarbonization goals, which support and influence national energy policy objectives (see Exhibits 5 and 6).

The EB-1A visa category recognizes individuals who have "risen to the very top of their field of endeavor" [8 CFR §204.5(h)(2)]. Dr. Sultan's groundbreaking scientific contributions, leadership roles, peer-reviewed publications, and prestigious awards, establish that she meets and exceeds this exacting criterion.

Further underscoring national importance, on July 16, 2025, President Trump announced an unprecedented investment exceeding $92 billion to accelerate artificial intelligence (AI) and energy initiatives. This commitment demonstrates the administration's recognition of STEM-driven innovation as essential to enhancing the reliability, affordability, and security of U.S. energy infrastructure while sustaining American technological competitiveness globally (**Exhibit 1.2(b)**).

Additionally, executive orders issued in April 2025 established expedited pathways for energy project approvals, reduced regulatory burdens, and promoted deployment of advanced energy systems. These measures create a favorable environment for innovation in Dr. Sultan's field of endeavor. Specifically:

- Executive orders instituted expedited permitting processes and regulatory streamlining measures (**Exhibit 1.2(c)**).

To sum up, the Trump administration's executive policies, and USCIS's explicit regulatory guidance collectively affirm the national significance of Dr. Sultan's specialized field of Integrated Energy Systems and Building Technologies. This alignment substantiates her eligibility for the EB-1A visa as an Alien of Extraordinary Ability whose work delivers critical benefit to the United States.

Legal Standard of Review

Dr. Sultan re-emphasizes that USCIS must employ the "preponderance of the evidence" legal standard when evaluating this EB-1A petition. The standard requires that, if the USCIS Officer believes the total evidence demonstrates that the applicant *probably* or *more likely than not* (i.e., >50%) has met EB-1A requirements, then the petition must be approved. See *U.S. v. Cardoza-Fonseca*, 480 U.S. 421 (1987); *Chursov v. Miller* (U.S. District Court, Southern District of New York, Case #1:18-cv-02886); USCIS Policy Manual, Volume 1, Part E, Chapter 6.

ELIGIBILITY

Dr. Sultan is applying for EB-1A based on five criteria out of ten outlined in *(8 C.F.R. § 204.5(h)(3))*:

1. Receipt of lesser nationally or internationally recognized prizes or awards for excellence in the beneficiary's field of endeavor.
2. Alien's participation, either individually or on a panel, as a judge of the work of others in the same or an allied field of specification for which classification is sought.
3. Evidence of the alien's original scientific, scholarly, artistic, athletic, or business-related contributions of major significance in the field. *(The USCIS has accepted the evidence for this criterion)*
4. Evidence that the alien has performed in a leading or critical role for organizations or establishments that have a distinguished reputation, and
5. Evidence of the alien's authorship of scholarly articles in the field, in professional or major trade publications or other major media.

Although the RFE (Request for Evidence) requested documentation regarding Salary, Dr. Sultan did not claim the compensation criterion in her EB-1A petition.

2 – Response to RFE: Evidence of a One-Time Achievement (Major Internationally Recognized Award)

USCIS requested clarification and additional documentation regarding evidence of a one-time achievement or a major internationally recognized award. In the original petition, **Dr. Sultan did not claim** to have received a single major one-time award of the caliber of a Nobel Prize or Fields Medal. Rather, the petition presented a series of nationally and internationally recognized awards, each of which demonstrates her distinction and sustained acclaim in the field.

Illustration 2. Awards claimed

The submitted evidence ensures that each award and supporting documentation is distinctly itemized, accompanied by photographs, certificates, and independent confirmation of the prestige of the awarding bodies.

This addresses USCIS's request for direct proof of the awards, including certificates, photographs, and official announcements, in line with the plain language of the regulation.

Importantly, under USCIS policy and AAO precedent, an applicant is not strictly required to establish eligibility through a single "major" one-time award. The regulations at 8 C.F.R. § 204.5(h)(3) provide two alternative paths: either (a) a one-time achievement (a major internationally recognized award), *or* (b) evidence satisfying at least three of the regulatory criteria. In Matter of K-S-Y-, for example, the AAO clarified that while an individual Nobel Prize-type award would suffice, multiple significant nationally and internationally recognized awards, when documented, may demonstrate that the individual has risen to the very top of the field.

Dr. Sultan's record reflects precisely this: a consistent pattern of receiving prestigious awards across national and international platforms, recognized by leading universities, professional associations, and innovation organizations. These accolades highlight her excellence and emerging prominence.

- IMPEL+ Innovator award by Lawrence Berkeley National Lab for innovation in Integrated Thermal Energy Storage and building technologies
- Volunteer 40 under 40 award by University of Tennessee alumni office for professional accomplishments and field contributions
- Best conference paper awards by prestigious conferences (organized by Duke University and Georgia Tech) for innovation and research on thermal storage
- Linda Latham Scholar by American Council for Energy Efficient Economy (ACEEE) for leadership and promise in energy policy
- Other awards and nominations including Volunteer of distinction by Provost of University of Tennessee

For each award, evidence is submitted that:

- Award is nationally/internationally recognized
- Granting body is prestigious in the field
- Eligibility Criteria is rigorous
- Impact and prestige in the field
- Award is publicly announced and Dr. Sultan was recognized
- Award was accepted/received

2.1 – IMPEL+ Innovators Award

Dr. Sultan was selected in 2022 IMPEL+ Innovator cohort by Lawrence Berkeley National Lab for her innovation in Integrated Thermal Energy Storage and building technologies. Evidence is submitted to confirm the national recognition of the award, award prestige, organization's prestige, rigorous eligibility, public announcement and reception of the award.

2.1.1 – Award is nationally/internationally recognized:

- Exhibit 2.1(a): News announcement published by BioTwin on 19 October 2023, titled *"IMPEL Berkeley Accelerator,"* publicly introducing participation in the IMPEL 2024 Innovator Cohort, a U.S. Department of Energy–funded program led by Lawrence Berkeley National Laboratory to advance building technologies to market.

- Exhibit 2.1(b): The "About IMPEL" webpage, published by IMPEL / Lawrence Berkeley National Laboratory, which introduces IMPEL as a technology commercialization program funded by the U.S. Department of Energy's Building Technologies Office; it highlights the program's mission of incubating a market-propelled entrepreneurial mindset and supporting innovators in bringing building technologies from the lab to market. It also explains who the program serves—including entrepreneurs, small businesses, national lab staff, faculty, graduate students, and building professionals with innovative building technology ideas—and details IMPEL's thematic priorities: reducing embodied carbon, reducing operational carbon, embracing material circularity, and digitizing the building lifecycle to accelerate sustainable solutions in the built environment.

2.1.2 – Granting body is prestigious

- Exhibit 2.1(c): The *About* page of **Lawrence Berkeley National Lab (LBL)** showing its prestige and profound impact worldwide. Berkeley Lab has 16 Nobel prize winners, 18 National Medals, and an annual budget of $1.495 billion; clearly showing the prestige and research output of LBL nationally and internationally.

2.1.3 – Eligibility Criteria is rigorous:

- Exhibit 2.1(d): Web page published on impel.lbl.gov outlining the IMPEL Innovator criteria, eligibility requirements, and application procedures.

2.1.4 – Impact and prestige of award in the field:

- Exhibit 2.1(e): Press release published by IMPEL+ via PR Newswire on November 3, 2021, announcing the launch of the U.S. Department of Energy's 2022 IMPEL+ building-technology accelerator, which brings together investors, entrepreneurs, experts, and innovators to advance carbon-slashing building technologies, with the program funded by the DOE's Building Technologies Office and implemented by Lawrence Berkeley National Laboratory.

- Exhibit 2.1(f):A program portfolio published by IMPEL+ / Lawrence Berkeley National Laboratory, presenting the initiative's mission and leadership while showcasing its network of 33 small businesses/entrepreneurs and 13 universities/national labs engaged as innovators.

- Exhibit 2.1(g): Scholarly article published by Lawrence Berkeley National Laboratory on eScholarship (2024), this document titled "From IMPEL to Impact: Lessons Learned in Accelerating Innovative Building Technologies" examines IMPEL's outcomes, strategies, and lessons in advancing building technology commercialization.

2.1.5 – Award is publicly announced and Dr. Sultan was recognized:

- Exhibit 2.1(h): LinkedIn Post by Reshma Singh, Program Director at Lawrence Berkeley National Laboratory, issuing a public announcement about the launch of the IMPEL+ 2022 Innovator Cohort—featuring innovators such as Dr. Sultan—focused on the digitalization of building technologies (Original Petition Exhibit 7.1)

- Exhibit 2.1(i): Public announcement profile page from the IMPEL+ Innovator Cohort 3 website, presenting Dr. Sultan, a Graduate Researcher at Oak Ridge National Lab, and highlighting her selected project, *"Thermal Energy Storage for Demand Response in Buildings,"* as part of the program's official recognition of its 2022 cohort.

2.1.6 – Award is received and accepted

- Exhibit 2.1(j): Official email from the Program Manager of IMPEL+ (Laura Wong) notifying that Dr. Sultan has been selected as IMPEL+ Innovator for 2022. Subsequent email from Dr. Sultan shows that the award was accepted.

2.2 – Linda Latham Scholar (2022, ACEEE)

Through the Linda Latham Scholarship Fund, the American Council for an Energy-Efficient Economy (ACEEE) awards scholarships to undergraduate and graduate students pursuing careers in environmental programs to attend ACEEE's Summer Study conferences. Dr. Sultan was chosen as a "Latham Scholar" in 2022 in a select cohort of top young professionals in energy policy, nationally selected each year.

2.2.1 – National recognition

- Exhibit 2.2(a): Linda Latham scholarship fund was established in 2011 and it was reported by ACHR News (established in 1926) which is a nationally recognized multi-channel media brand and newsmagazine dedicated to HVACR professionals. This shows the national recognition and attention received by Linda Latham Scholarship fund.

- Exhibit 2.2(b): Sponsors of ACEEE Summer Study 2022

2.2.2 – Prestige of awarding body

- Exhibit 2.2(c): The *About Page of* ACEEE…
- Exhibit 2.2(d): Webpage from ACEEE showing its impact

2.2.3 – Eligibility of the award

- Exhibit 2.2(e): ACEEE.org webpage describing the Linda Latham Scholarship program and providing information on eligibility criteria and application procedures.

- Exhibit 2.2(f): ACEEE announcement inviting applications for the 2021 Linda Latham Scholarship to attend the Summer Study on Energy Efficiency in Industry (Virtual), including background on the scholarship's establishment in honor of Linda Latham and strict eligibility requirements for applicants.

2.2.4 – Prestige and Impact of award

Exhibit 2.2(d): *About Latham Scholarship*

2.2.5 – Public announcement and Recognition as Linda Latham Scholar by ACEEE.

- Exhibit 2.2(g): Email from the American Council for an Energy-Efficient Economy (ACEEE) awarding Dr. Sultan the Linda Latham Scholarship to attend the 2022 ACEEE Summer Study on Energy Efficiency in Buildings (dated May 2, 2022).

- Exhibit 2.2(h): Email from Amelia Armstrong of ACEEE confirming Dr. Sultan's acceptance of the Linda Latham Scholarship and participation in the 2022 ACEEE Summer Study (dated March 24, 2025).

- Exhibit 2.2(i): ACEEE.org publication featuring the 2022 Linda Latham Scholarship winners, including Dr. Sultan.

2.2.6 – Award receipt

- Exhibit 2.2(j): Dr. Sultan's public announcement on LinkedIn confirming the acceptance of the award. She also expresses gratitude for being selected as a Linda Latham Scholar and reflects on her experience at the 2022 ACEEE Summer Study conference.

2.3 – University of Tennessee "Volunteer 40 Under 40 Award" (2025)

2.3.1 – Granting body is prestigious:

- Exhibit 2.3(a): Copy of U.S. News & World Report profile on the University of Tennessee–Knoxville (Tickle) Engineering School: A document published by U.S. News & World Report ranking the Tickle College of Engineering #52 among Best Engineering Schools, and providing an overview of admissions selectivity, tuition rates, faculty resources, and enrollment statistics that reflect the institution's strong academic standing and research output.

- Exhibit 2.3(b): Wikipedia entry on the University of Tennessee: A document published on Wikipedia presenting a comprehensive profile of the University of Tennessee, Knoxville, including its history, organizational structure, affiliated research institutions, notable alumni, and recognition as a leading top-ranked public research university.

2.3.2 – Eligibility criteria is rigorous:

- Exhibit 2.3(c): Selection Criteria: Published by the University of Tennessee Alumni Office on its official website, this document outlines the eligibility and requirements for the Volunteer 40 Under 40 Award.

2.3.3 – Prestige of award:

- Exhibit 2.3(d): Bredesen Center Announcement: Published on the Bredesen Center's LinkedIn page, this post announces Dr. Sultan's recognition as a 2025 Volunteer 40 Under 40 honoree and highlights her career achievements. It also features Dr. Sultan's official Volunteer 40 Under 40 award recognition graphic.

- Exhibit 2.3(e): Tickle College of Engineering Announcement: Published on official website celebrating Dr. Sultan as one of four College of Engineering alumni to win the 2025 Volunteer 40 Under 40 award.

2.3.4 – Award is publicly announced and Dr. Sultan was recognized:

- Exhibit 2.3(f): An official email notification dated October 31, 2024, from the University of Tennessee Alumni Office informing Dr. Sultan of her selection as a recipient of the UT Knoxville Alumni Volunteer 40 Under 40 Award, congratulating her on her accomplishments, confirming her inclusion among the 2025 honorees, and providing details about the award ceremony and next steps.

- Exhibit 2.3(g): A copy of the official University of Tennessee Alumni publication announcing Dr. Sultan's selection as a 2025 Volunteer 40 Under 40 honoree, featuring her photograph and a biographical summary of her accomplishments and contributions.

- Exhibit 2.3(h): A copy of the University of Tennessee Alumni "Volunteer 40 Under 40" publication showcasing the Class of 2025 honorees, including Dr. Sultan (PhD in Energy Science and Engineering '23), with official portraits and profiles of the award recipients.

2.3.5 – Evidence of award receipt:

- Exhibit 2.3(i): Photograph of award

- Exhibit 2.3(j): Photograph of certificate.

- Exhibit 2.3(k): Photograph of Official congratulatory letter from Dean Matthew M. Mench, Ph.D., MBA, Chancellor's Professor to Dr. Sultan for winning the Volunteer 40 Under 40 Award.

2.4 – Best Paper Awards

Dr. Sultan presented and won two Research Paper Awards as described briefly below:

1. 2nd Prize Poster Winner in Duke Energy Week (November, 2020)
   Dr. Sultan presented a poster relating to her research in the area of thermal energy storage and won 2nd prize. This poster competition was part of Duke Energy week – a week-long event hosted annually by Duke university which brings students, faculty, and industry professionals together for a week of energy events to promote collaboration, knowledge-sharing, and professional networking.

2. 3rd Place in Research Showcase at Southeastern Energy Conference - hosted by Georgia Tech (March 2021)
   Dr. Sultan gave a presentation at the Research Showcase and won 3rd place. This event was hosted by Georgia Tech and was part of the Southeastern Energy Conference which brings together industry leaders, researchers, and students to discuss advancements and challenges in the energy sector.

A. From Duke Energy Week

2.4.1A – Awarding body prestige

- Exhibit 2.4(a): U.S. News (usnews.com) feature article ranking Duke University (Pratt) No. 20 among Best Engineering Schools.

- Exhibit 2.4(b): Wikipedia article about Duke University

2.4.2A – Evidence of conference prestige

- Exhibit 2.4(c): Article published by Energy Week at Duke University describing Energy Week, an initiative bringing together students, faculty, and industry professionals for a week of collaboration, knowledge-sharing, and networking.

- Exhibit 2.4(d): The keynote speaker for The Duke Energy Week conference 2025 is Vice President of Energy at Microsoft (Bobby Hollis) which shows the prestige and national recognition of the conference as it attracts some of the most distinguished professionals in Energy as guest speakers.

- Exhibit 2.4(e): Webpage showing the sponsors of Duke Energy Week 2024 which include major corporations such as ExxonMobil, Chevron, NEXTera ENERGY, and GENERAC, among others showing the prestige and impact of the Energy week to be on a national scale.

2.4.3A – Award is publicly announced and Dr. Sultan was recognized:

- Exhibit 2.4(f): Screenshot of Duke Energy Week Poster Contest Winner Announcements (2020): A post on X.com from Duke Energy official account showing the official announcement slides with winners' names and photos, including Dr. Sultan as the 2nd Prize Poster Winner.

- Exhibit 2.4(g): Bredesen Center LinkedIn Post on Duke Energy Week Award (2020): A LinkedIn post by the Bredesen Center congratulating Dr. Sultan for winning second prize in the Duke Energy Week poster contest, with supportive public comments.

2.4.4A – Evidence of the award receipt

- Exhibit 2.4(h) Gmail Notification of Duke Energy Week Poster Contest Winners (2020): An official email from Duke University congratulating Dr. Sultan as the 2nd Prize Poster Winner at the Duke Energy Week Research Poster Presentation, confirming her recognition.

B. From Southeastern Energy Conference Research

2.4.1B – Awarding body prestige

- Exhibit 2.4(i): U.S. News (usnews.com) feature article ranking Georgia Institute of Technology No. 4 among Best Engineering Schools.

- Exhibit 2.4(j): Georgia Tech (gatetech.edu) feature article ranking Georgia Institute of Technology as one of the top research universities.

- Exhibit 2.4(k): Wikipedia article about Georgia Institute of Technology

2.4.2B – Evidence of conference prestige

- Exhibit 2.4(l): Webpage showing the Southeastern Energy conference 2025 is sponsored by major corporations such as ExxonMobil, GE VERNOVA, and Kimley Horn, among others. This shows the conference is recognized nationally and has broad impact on research in energy.

- Exhibit 2.4(m): Article published March 18, 2025, by Georgia Tech News describing the 2025 Southeastern Energy Conference, held February 28–March 1, 2025, which focused on global energy challenges and international collaboration.

2.4.3B – Award is publicly announced and Dr. Sultan was recognized:

- Exhibit 2.4(n): Georgia Tech Energy Club Public Congratulations Post (2021): A public post by the Georgia Tech Energy Club congratulating Dr. Sultan as a winner at the 2021 Southeastern Energy Conference Research Showcase, providing external recognition of the award.

2.4.4B – Evidence of the award receipt

- Exhibit 2.4(o): Gmail Notification of 2021 Southeastern Energy Conference Research Showcase Award (2021): An email from Georgia Tech Energy Club confirming Dr. Sultan's award of third prize at the 2021 Southeastern Energy Conference Research Showcase and providing prize details. It also contains additional email communication updating Dr. Sultan on prize disbursement procedures.

2.5 – Volunteer of Distinction Award

Volunteer of Distinction award is given to students who have exhibited extraordinary academic achievement, community engagement, outstanding teaching, or excellence in research.

- Exhibit 2.5(a): Email from the Office of the Provost and Senior Vice Chancellor at the University of Tennessee announcing Dr. Sultan as a 2023 Volunteer of Distinction award recipient.

- Exhibit 2.5(b): Photograph showing the certificate awarded to Dr. Sultan recognizing her as a 2023 Volunteer of Distinction at the University of Tennessee.

- Exhibit 2.5(c): Volunteer of Distinction eligibility and prestige

2.6 – Other Nominations

- Exhibit 2.6(a): Email from Jordan Smith-Porter, Center for Student Engagement, University of Tennessee, notifying Dr. Sultan of her nomination for the Outstanding Graduate/Professional Student Leader Award at the 2021 Student Engagement Awards Ceremony.

- Exhibit 2.6(b): Email from Neera Jain informing Dr. Sultan of her nomination and selection as a finalist for the Student Paper Awards at the 2021 Purdue High Performance Buildings Conference, held May 24–28, 2021.

- Exhibit 2.6(c): Email correspondence among Neera Jain (Professor, Purdue University), Kyle Gluesenkamp (Researcher, Oak Ridge National Laboratory), and other collaborators congratulating Dr. Sultan on being selected as a finalist for the 2021 Purdue High Performance Buildings Conference Student Paper Awards and discussing preparation for the finalist session.

- Exhibit 2.6(d): Email from Navin Kumar (Researcher, GTI Energy) congratulating Dr. Sultan on being selected as a finalist for the 2021 Purdue High Performance Buildings Conference Student Paper Awards, with copies to collaborators from Oak Ridge National Laboratory, Georgia Tech, University of Tennessee, and Texas A&M.

Dr. Sultan has consistently received Awards of national acclaim

Taken together, these awards constitute clear evidence that Dr. Sultan has consistently been singled out for excellence, not only by U.S. universities and professional organizations but also by internationally recognized institutions in the fields of innovation, energy, and sustainability. The reorganization and supplementation of exhibits directly address USCIS's concerns, provide the requested proof (certificates, photographs, official letters), and demonstrate that the awards are nationally and internationally distinguished recognitions, thereby establishing that she has risen to the very top of her field.

Table: Peer Benchmarking and Documentary Compliance of Awards Demonstrating National Acclaim

Award / Recognition	**Awarding Body**	**Peer Benchmark**	**Evidence of Prestige**	**Exhibits**

IMPEL+ Innovators Award (2022)	U.S. Department of Energy & Lawrence Berkeley National Laboratory	Awarded to leading U.S. energy innovators; past recipients include researchers from MIT, Stanford, and national labs	Highly selective federal innovation program with national visibility	Exhibit 2.1(a)–(b)
Volunteer 40 Under 40 Award (2025)	University of Tennessee	Previous honorees include nationally recognized leaders in various fields including engineering, business, and public policy	Prestigious recognition of outstanding professionals; formally conferred by a top 50 U.S. university	Exhibit 2.2(a)–(c), 2.2(e)-(f)
Best Paper Awards (2020 - 2021)	Duke University Energy Week & Southeastern Energy Conference	Consistently awarded to doctoral researchers from elite institutions (e.g., Georgia Tech, University of North Carolina, NC State)	Demonstrates research impact and peer-reviewed excellence in competitive national forums	Exhibit 2.3(a)–(f)
Linda Latham Scholar (2022)	American Council for an Energy-Efficient Economy (ACEEE)	Selective cohort of top young professionals in energy policy, nationally selected each year	Nationally recognized nonprofit advancing energy efficiency; selection highly competitive	Exhibit 2.4(a)–(d)
Volunteer of Distinction (2023)	University of Tennessee	Reserved for graduates with exceptional professional and community contributions	Confers prestige within academic and professional community; limited awardees	Exhibit 2.5(a)

The evidence submitted in Exhibit 2 demonstrates that Dr. Sultan has received multiple nationally recognized prizes and awards for excellence, fully satisfying the criterion under *8 C.F.R. § 204.5(h)(3)(i).*

Each award was conferred through a merit-based, selective process, often recognizing only a handful of individuals from leading U.S. universities, national laboratories, or major nonprofit

organizations. Past recipients include peers from institutions such as MIT, Stanford, Duke, Georgia Tech, and Lawrence Berkeley National Laboratory, underscoring the prestige and exclusivity of these recognitions.

By benchmarking Dr. Sultan's honors against her peers, it is evident that her awards are of the same high caliber as those bestowed on nationally and internationally recognized leaders in the field. Together, these recognitions reflect not only **sustained national acclaim** but also Dr. Sultan's placement among the **top tier of professionals** advancing energy efficiency and innovation.

2.8 - Compliance with "Lesser Awards" USCIS Criterion

(Criterion: 8 C.F.R. § 204.5(h)(3)(i) – Receipt of lesser nationally or internationally recognized prizes or awards for excellence)

The following table demonstrates that Dr. Sultan has satisfied this criterion through multiple nationally recognized prizes and awards for excellence, each fully documented with corresponding exhibits.

Table – Compliance with Documentary Requirements for Lesser Nationally/Internationally Recognized Awards
(8 C.F.R. § 204.5(h)(3)(i): Receipt of lesser nationally or internationally recognized prizes or awards for excellence)

Award	Awarding Body	Documentary Requirement (Plain Language)	Why Requirement is Met	Compliance (with Exhibits & Evidence Type)
IMPEL+ Innovators Award (2022)	U.S. Department of Energy (DOE) & Lawrence Berkeley National Laboratory	Proof that the award was conferred; evidence of prestige and selectivity of awarding body.	– Award receipt documented via IMPEL+ cohort webpage, LinkedIn announcement, PR Newswire release, DOE/LBNL program portfolio. – Prestige established by DOE/LBNL as a federally funded, selective innovation program.	✅ Exhibits **2.1(a)–(j)**

Volunteer 40 Under 40 Award (2025)	University of Tennessee Alumni Association (Top 50 U.S. university)	Proof of award; eligibility criteria; evidence of national recognition of awarding body.	– Proof of receipt via Alumni Office email, certificate, alumni magazine, photographs. – Prestige supported by published criteria and UT's U.S. News ranking as a leading national university.	✅ Exhibits **2.3(a)–(k)**
Best Paper Awards (2020 – Duke Energy Week; 2021 – SEEC)	Duke University & Georgia Tech Energy Club	Proof of award; evidence of conference prestige; recognition of scholarly excellence in competition.	– Award receipt proven by emails, announcement slides, LinkedIn posts. – Prestige confirmed by U.S. News rankings of Duke (#20) and Georgia Tech (#4); conferences are nationally recognized and competitive.	✅ Exhibits **2.4(a)–(o)**
Linda Latham Scholar (2022)	American Council for an Energy-Efficient Economy (ACEEE)	Proof of award; evidence of selectivity and prestige of awarding body.	– Proof via ACEEE official award emails and webpage listing scholars. – ACEEE is a nationally recognized nonprofit; award is selective, merit-based, and limited to top young professionals.	✅ Exhibits **2.2(a)–(j)**

Volunteer of Distinction Award (2023)	University of Tennessee	Proof of award; evidence of prestige of awarding institution.	– Proof of receipt via official UT notification email and award certificate. – Prestige supported by UT's national ranking and selective nature of this recognition.	✅ Exhibits **2.5(a) – (b)**

Taken together, these awards show that Dr. Sultan has consistently received nationally recognized prizes for excellence, thereby fulfilling this regulatory criterion with strong, corroborated evidence.

Dr. Sultan's specialty in thermal energy storage and building energy efficiency is nationally critical. Buildings consume approximately 40% of U.S. primary energy, making her innovations central to national climate and energy security policies. Her awards from government laboratories, universities, and respected organizations underscore her sustained national prominence in these essential fields.

While Dr. Sultan has not claimed a single Nobel Prize-type one-time award, the record demonstrates that she has received a consistent series of nationally and internationally recognized awards, each conferred through rigorous selection by respected academic, professional, and innovation organizations. The evidence submitted with certificates, photographs, and official letters, address the USCIS's request for direct proof of the awards and their prestige.

USCIS policy and AAO precedent make clear that the one-time achievement requirement is not exclusive: an individual may also establish extraordinary ability by meeting at least three of the regulatory criteria. The awards presented in Exhibits 2.1 through 2.4 not only confirm national and international recognition but also serve as independent evidence of sustained acclaim. Viewed collectively, these awards establish that Dr. Sultan has risen to the very top of her field of endeavor and continues to receive recognition for her outstanding contributions.

3 – Response to RFE: Evidence of the alien's authorship of scholarly articles in the field, in professional or major trade publications or other major media

(8 C.F.R. § 204.5(h)(3)(vi))

At the outset, Dr. Sultan respectfully noted that several of USCIS's requests in the RFE appear to conflate distinct regulatory criteria under 8 C.F.R. § 204.5(h)(3). For example, in the authorship of scholarly articles criterion (§ 204.5(h)(3)(vi)), the regulation requires only "evidence of the alien's authorship of scholarly articles in the field, in professional or major trade publications or other major media." The plain language does not require that the articles be *about* the beneficiary — a requirement reserved for a separate criterion at § 204.5(h)(3)(iii) — nor does it impose circulation or readership thresholds. To the extent the RFE applies standards outside the regulation, Dr. Sultan respectfully provides clarification along with documentary evidence that directly satisfies the authorship requirement as written.

This response addresses the Request for Evidence (RFE) concerning the criterion of authorship of scholarly articles under 8 C.F.R. § 204.5(h)(3)(vi). The beneficiary has authored 3 peer-reviewed journal articles, a professional magazine article, and 9 internationally presented conference papers in the field. This submission addresses all evidentiary deficiencies.

Legal Standard

USCIS regulations at 8 CFR § 204.5(h)(3)(vi) require evidence of authorship of *"scholarly articles in the field, in professional or major trade publications or other major media."* Neither the statute nor the regulations limit "scholarly" exclusively to academic university journals. As confirmed by Kazarian v. USCIS, 596 F.3d 1115 (9th Cir. 2010), USCIS cannot impose additional requirements (such as mandatory citation counts or evidence of community reaction) beyond the regulation's plain language.

3.1 – USCIS Plain Language Requirements as Detailed in RFE

USCIS requires evidence to satisfy all four elements of the criterion:

1. Published material exists
2. Material contains the title, date, and author of the work, with certified translation if not in English
3. Material is about the beneficiary's work in their field
4. Material qualifies as professional or major trade publications or other major media

In compliance, with the Plain Language requirement, the enclosed evidence demonstrates that (see Exhibits 3.1 – 3.13):

1. Each work has been published and includes the original bibliographic header with title, date, author, and publication venue.
2. These works were intended for and directed to learned persons in the field, including researchers, academics, and industry professionals.

3. The journals, conference proceedings, and professional magazine qualify as professional or major trade publications, or other major media, with documented circulation and learned readership.
4. Independent evidence demonstrates the impact and recognition of these works, including citation by other scholars and use by institutions.

3.1.1 – USCIS Policy & Precedent:

- The USCIS Policy Manual (Vol. 6, Pt. F, Ch. 2) recognizes authorship of scholarly articles in professional or major trade publications as valid evidence under EB-1A.
- USCIS further defines a scholarly article as one written for an audience of learned persons, typically peer-reviewed, and including references, citations, or academic analysis.

The regulations at 8 CFR §204.5(h)(3)(vi) require evidence of authorship of scholarly articles in the field, in professional or major trade publications, or other major media. The provision does not restrict 'scholarly articles' to academic journals, nor does it require that the beneficiary be employed as a researcher in academia. As the USCIS Policy Manual clarifies, professional or major trade publications qualify as scholarly outlets when directed at an expert audience in the field.

AAO decisions confirm that peer-reviewed articles and conference papers satisfy this criterion when properly documented.

Accordingly, the beneficiary's submissions fall squarely within the definition of scholarly authorship.

3.1.2 – Dr. Sultan's Authored Works

Exhibit 3.1 (e): Energies, MDPI – Peer-Reviewed Journal

- Prestige: Energies has an Impact Factor 3.2, CiteScore 7.3, SJR Q1 ranking, H-Index 175, and is indexed in Scopus and Web of Science. These objective bibliometric indicators place it among well-recognized international journals in sustainable energy.

- Meets the "scholarly article" requirement through rigorous peer review and international circulation.

Exhibit 3.2 (d): Journal of Applied Physics, AIP

- Prestige: Impact Factor 2.5, h-index 359, SJR 0.58 (Q2). Published by the American Institute of Physics (AIP) since 1931, widely circulated and internationally recognized..

- Clearly a scholarly journal by any standard.

Exhibit 3.3 (d): Sustainable Energy Technologies and Assessments, Elsevier

- Prestige: CiteScore 17.3, Impact Factor 7.0, SJR 1.606 (Q1). Published by Elsevier, indexed in SCIE/Scopus, aligned with UN Sustainable Development Goal 7.

- A high-impact, peer-reviewed outlet demonstrating scholarly standing.

Exhibit 3.4 (e): HPT Magazine – Professional Publication

- Prestige: Published by the IEA Heat Pump Centre, a globally recognized professional body advancing heat pump technologies. Circulates to engineers, policymakers, and energy system professionals.

- Qualifies as a major trade/professional publication intended for experts in the field.

Exhibits 3.5 – 3.13: (Conferences: ACEEE, IEA Heat Pump Conference, Purdue Herrick Conferences, IEEE Proceedings)

- Prestige: These are internationally recognized conferences (ACEEE, IEA, IEEE, Purdue Herrick) with rigorous peer-review procedures, published proceedings, and government/institutional dissemination (DOE/ORNL/NREL/OSTI). IEEE in particular is one of the largest professional engineering organizations in the world.

- Proceedings papers published in such venues meet the definition of scholarly articles in professional/major trade publications.

3.3.3 – Supporting Evidence of Prestige

Across Exhibits 3.1–3.13, Dr. Sultan's publications are supported by:

- Peer review documentation (journal editorial policies, conference reviewer guidelines).

- Objective impact metrics (Impact Factor, CiteScore, SJR, H-index, citations across Google Scholar, Web of Science, Scopus, PlumX).

- Institutional/governmental indexing (DOE, ORNL, NREL, OSTI.GOV indexing). Authorship of Dr. Sultan's papers is evidenced by their indexing and archival within the official repositories of the Office of Scientific and Technical Information (OSTI), Oak Ridge National Laboratory (ORNL), National Renewable Energy Laboratory (NREL), and the U.S. Department of Energy (DOE). These government records were created because the works were authored during her contract under federally funded DOE research grants, conducted at ORNL and in collaboration with NREL.

Taken together, Exhibits sub-section of prestige from 3.1 – 3.13 establish that Dr. Sultan's publications were disseminated in outlets of recognized scholarly or professional standing. These publications satisfy the authorship prong under 8 C.F.R. § 204.5(h)(3)(vi) by:

1. Demonstrating prestige and recognition of the journals, magazines, and conferences.

2. Providing proof of peer review and circulation to a professional audience.

3. Showing objective metrics of scholarly impact and government/institutional reliance.

Therefore, by a preponderance of the evidence, the Authorship of Scholarly Articles criterion is satisfied, and USCIS should proceed to the final merits determination consistent with *Kazarian*.

3.2 – Authored Articles of Dr. Sultan

3.2.1 – Techno-Economic Assessment of Residential Heat Pump Integrated with Thermal Energy Storage

Evidence that Published Scholarly Article Exists

Exhibit 3.1(a): Published Article Copy (Title, Date, Publication)

- Title: *Techno-Economic Assessment of Residential Heat Pump Integrated with Thermal Energy Storage.*
- Date published online: 14 May, 2023
- Journal: *Energies*
- Author's Statement of Contribution

Exhibit 3.1(b): Journal Vol. and Issue

- Energies, Vol.16, Issue 10, May 2023, p.4087.

Exhibit 3.1(c): First page of Chapter IV in Dr. Sultan's dissertation showing contribution statement

Evidence that Published Article is Scholarly in nature intended for Learned audience

Exhibit 3.1(d): Energies Journal Flyer

Evidence that Scholarly Article is published in Professional or Major Trade Publications

Exhibit 3.1(e): Journal Prestige and Impact

- Impact Factor 3.2,
- CiteScore 7.3,
- SJR 0.713 (Q1),
- H-index 175

Exhibit 3.1(f): Proof of Peer Review

- *Energies* About page confirms peer-reviewed status.
- MDPI *Guidelines for Reviewers*: rigorous peer-review process (editorial oversight, COI policies, manuscript evaluation).

Exhibit 3.1(g): Journal Ranking

- Ranked #10 on google scholar. Scopus rankings included in Exhibit 3.1(e).

Circulation Data of Publications

Exhibit 3.1(h):

- Indexing

Exhibit 3.1(i):

- Stats

Impact Data of Scholarly Article

Exhibit 3.1(j): Article's Citation Evidence

- ResearchGate: Research Interest Score 9.1; 3 citations; 1 recommendation; 207 reads
- Google Scholar: 6 citations
- PlumX Metrics: 4 citations; 37 captures; 2 mentions
- Scopus: 4 citations; FWCI 0.47
- Web of Science: 4 citations; 50 cited references

Evidence that Published Scholarly Article is sponsored and indexed by U.S. Government Agencies

Exhibit 3.1(a): Funding statement: "*This work was sponsored by the U. S. Department of Energy's Building Technologies Office under Contract No. DE-AC05-00OR22725 with UT-Battelle, LLC*".

Exhibit 3.1(k): Government / Institutional Use

- Stor4Build Publications – DOE, "*HVAC Systems with Thermal Energy Storage*"

- ORNL publication: *"Techno-Economic Assessment of Residential Heat Pump Integrated with Thermal Energy Storage"*

- OSTI.GOV ID: 1973525.

3.2.2 – Understanding supercooling mechanism in sodium sulfate decahydrate phase-change material.

Evidence that Published Scholarly Article Exists

Exhibit 3.2(a): Published Article Copy (Title, Date, Publication)

- Title: *Understanding Supercooling Mechanism in Sodium Sulfate Decahydrate phase-change material.*
- Date published online: 25 June, 2021
- Journal: *Journal of Applied Physics*
- Author's Statement of Contribution

Exhibit 3.2(b): Journal Vol. and Issue

- Journal of Applied Physics, Vol. 129, Issue 24.

Evidence that Published Article is Scholarly in nature intended for Learned audience

Exhibit 3.2(c): Journal of Applied Physics, "*Focus and Coverage*".

Evidence that Scholarly Article is published in Professional or Major Trade Publications

Exhibit 3.2(d): Journal Prestige and Impact

- Impact Factor 2.7
- CiteScore 5.4
- SJR 0.580 (Q2)
- H-index: 359

Exhibit 3.2(e): Proof of Peer Review

- Copy of *Journal of Applied Physics* Editorial Policies clearly showing that this is a peer-reviewed journal.

Exhibit 3.2(f): Journal Ranking

- Ranked #6 on google scholar.

Circulation Data of Publications

Exhibit 3.2(g): Journal Indexing

Exhibit 3.2(h): Journal Stats

Impact Data of Scholarly Article

Exhibit 3.2(i): Citation Evidence

- ResearchGate: Research Interest Score of 19.6, 23 citations, 3 recommendations, and 568 reads
- Google Scholar: 31 citations.

- PlumX metrics: 26 citations and 25 readers
- Scopus: 26 citations, 1.40 FWCI
- Web of Science: 22 citations, 32 Cited References

Evidence that Published Scholarly Article is sponsored and indexed by U.S. Government Agencies

Exhibit 3.2(a): Acknowledgments Statement: *"This work was sponsored by the U.S. Department of Energy's (DOE) Building Technologies Office under Contract No. DE-AC05-00OR22725 with UT-Battelle, LLC"*.

Exhibit 3.2(j): Government / Institutional Use

- DOE Stor4Build Publications under "*Thermal Energy Storage Materials*"
- ORNL publication: "*Understanding Supercooling Mechanism in Sodium Sulfate Decahydrate phase-change material*"
- OSTI.GOV ID: 1807290.

3.2.3 – Empirical Analysis of Turbine and Generator Efficiency of a Pico Hydro System

Evidence that Published Scholarly Article Exists

Exhibit 3.3(a): Published Article Copy (Title, Date, Publication)

- Title: *Empirical Analysis of Turbine and Generator Efficiency of a Pico Hydro System*
- Date published online: 13 December, 2019
- Journal: *Sustainable Energy Technologies and Assessments*
- Author's Statement of Contribution

Exhibit 3.3(b): Journal Vol. and Issue:

- Sustainable Energy Technologies and Assessments, Vol. 37.

Evidence that Published Article is Scholarly in nature intended for Learned audience

Exhibit 3.3(c): Journal's Scope:

Evidence that Scholarly Article is published in Professional or Major Trade Publications

Exhibit 3.3(d): Journal Prestige

- Impact Factor 7.0
- CiteScore 17.3
- SJR 1.606 (Q1)
- H-Index 98

Exhibit 3.3(e): Proof of Peer Review

- Elsevier Guide for Authors outlining the peer review process confirming peer-review status.

Exhibit 3.3(f): Journal Ranking

- Ranked #15 on google scholar.

Circulation Data of Publications

Exhibit 3.3(g): Journal Indexing

Impact Data of Scholarly Article

Exhibit 3.3(h): Citation Evidence

- ResearchGate: Research Interest Score: 9.9; Citations: 27; Recommendation: 1; Reads: 260.
- Google Scholar: 24 citations.
- Web of Science Metrics: 12 Citations, 23 References.
- PlumX Metrics: 14 Citations, 123 Captures

- Scopus Metrics: Citations: 14; Field-Weighted Citation Impact (FWCI): 0.32; Prominence Percentile: 85.876.

3.2.4 – The State of the Art of Heat-Pump Integrated Thermal Energy Storage for Demand Response

Evidence that Published Scholarly Article Exists

Exhibit 3.4(a): Published Article Copy (Title, Date, Publication)
- Title: *The State of the Art of Heat-Pump Integrated Thermal Energy Storage for Demand Response*
- Date published online: 31 August, 2021
- Magazine: *Heat Pumping Technologies Magazine*

Exhibit 3.4(b): Magazine Vol.:
- Heat Pumping Technologies Magazine, Vol. 39 NO 2/2021. ISSN: 2002-018X

Exhibit 3.1(c): First page of Chapter I in Dr. Sultan's dissertation showing contribution statement.

Evidence that Published Article is Scholarly in nature intended for Learned audience

Exhibit 3.4(c): Magazine's Scope
Exhibit 3.4(d): Magazine's Submission Guidelines

Evidence that Scholarly Article is published in Professional or Major Trade Publications

Exhibit 3.4(e): Magazine Prestige
- HPT Magazine About page showing its read world wide

Exhibit 3.4(f): Editorial policies showing rigorous editorial oversight.

Impact Data of Scholarly Article

Exhibit 3.4(g): Citation Evidence
- ResearchGate: Score 7.1, 6 citations, 2 recommendations, 305 reads.
- Google Scholar: 4 citations.

Evidence that Published Scholarly Article is sponsored and indexed by U.S. Government Agencies

Exhibit 3.4(h): Government / Institutional Use

- DOE Stor4Build Publications under *"HVAC Systems with Thermal Energy Storage*"

- ORNL publication: "*The State of the Art of Heat-Pump Integrated Thermal Energy Storage for Demand Response*"

- OSTI.GOV ID: 1820760.

3.2.5 – Equity, Electrification, and Time of Use (TOU) rates: Coupling Thermal Energy Storage with Heat Pumps for Improved Operational Efficiency

Evidence that Published Scholarly Article Exists

Exhibit 3.5(a): Published Article Copy (Title, Date, Publication)

- Title: *Equity, Electrification, and Time of Use (TOU) rates: Coupling Thermal Energy Storage with Heat Pumps for Improved Operational Efficiency*
- Date published online: 09 August, 2024
- Conference: *ACEEE Summer Study (2024)*

Exhibit 3.5(b): Conference proceedings Link:

- https://www.aceee.org/summer-study-2024-proceedings

Evidence that Published Article is Scholarly in nature intended for Learned audience

Exhibit 3.5(c): Conference call for papers:

Evidence that Scholarly Article is published in Professional or Major Trade Publications

Exhibit 3.5(d): Conference Prestige and Impact:

- Internationally recognized biennial conference convening leading experts from the world; informs policy, tech adoption, and standards in building decarbonization.

Exhibit 3.5(e): Reviewer Guidelines

- Reviewer responsibilities, criteria, and procedures for thorough, fair peer review.
- Key deadlines for submission, review, and finalization.

Impact Data of Scholarly Article

Exhibit 3.5(f): Citation Evidence

- ResearchGate: Score 1.2, 26 reads, 1 recommendation

Evidence that Published Scholarly Article is sponsored and indexed by U.S. Government Agencies

Exhibit 3.5(a): Acknowledgments Statement: *"This manuscript has been authored by UT-Battelle, LLC under Contract No. DE-AC05-00OR22725 with the U.S. Department of Energy".*

Exhibit 3.5(g): Governmental / Institutional Use

- ORNL publication: "*Equity, Electrification, and Time of Use (TOU) rates: Coupling Thermal Energy Storage with Heat Pumps for Improved Operational Efficiency*"

- OSTI.GOV ID: 2439860.

3.2.6 – Carbon Mitigation Potential of Heat Pump Integrated with Thermal Storage for Grid-Interactive Residential Buildings

Evidence that Published Scholarly Article Exists

Exhibit 3.6(a): Published Article Copy (Title, Date, Publication)

- Title: *Carbon Mitigation Potential of Heat Pump Integrated with Thermal Storage for Grid-Interactive Residential Buildings*
- Date published online: 05 September, 2023
- Conference: *14th IEA Heat Pump Conference (Chicago, 2023)*

Exhibit 3.6(b): Conference proceedings Link: https://heatpumpingtechnologies.org/publications/14th-iea-heat-pump-conference-2023-hpc2023-conference-proceedings-full-papers/

Exhibit 3.1(c): First page of Chapter V in Dr. Sultan's dissertation showing contribution statement.

Evidence that Published Article is Scholarly in nature intended for Learned audience

Exhibit 3.6(c): Call for papers

Exhibit 3.6(d): List of sponsors

Evidence that Scholarly Article is published in Professional or Major Trade Publications

Exhibit 3.6(e): Conference Prestige and Impact:

- DOE overview of IEA and the 14th Heat Pump Conference: prestigious global forum advancing heat pump tech; petitioner also served as conference peer reviewer.

Exhibit 3.6(f): Presentation from Senior R&D Staff (Brian Fricke) at Oak Ridge National Lab (ORNL) showing that ORNL will plan and sponsor this conference.

Exhibit 3.6(g): Global recognition.

Impact Data of Scholarly Article

Exhibit 3.6(h): Citation Evidence

- ResearchGate Metrics: Score 0.9, 17 reads.

Evidence that Published Scholarly Article is sponsored and indexed by U.S. Government Agencies

Exhibit 3.6(a): Acknowledgments Statement: *"This manuscript has been authored by UT-Battelle, LLC under Contract No. DE-AC05-00OR22725 with the U.S. Department of Energy".*

Exhibit 3.6(i): Governmental / Institutional Use

- ORNL publication: "*Carbon Mitigation Potential of Heat Pump Integrated with Thermal Storage for Grid-Interactive Residential Buildings*"
- OSTI.GOV ID: 1991706.

3.2.7 – PCM Material Selection for Heat Pump Integrated with Thermal Energy Storage for Demand Response in Residential Buildings

Evidence that Published Scholarly Article Exists

Exhibit 3.7(a): Published Article Copy (Title, Date, Publication)

- Title: *PCM Material Selection for Heat Pump Integrated with Thermal Energy Storage for Demand Response in Residential Buildings*
- Date published online: 07 September, 2022
- Conference: *7th International High Performance Buildings Conference, Purdue, July 10–14, 2022*

Exhibit 3.7(b): Conference proceedings Link:
https://docs.lib.purdue.edu/ihpbc/index.2.html

Exhibit 3.1(c): First page of Chapter II in Dr. Sultan's dissertation showing contribution statement.

Evidence that Published Article is Scholarly in nature intended for Learned audience

Exhibit 3.7(c): Call for papers showing that articles are accepted in the research area of High Performance Buildings

Exhibit 3.7(d): Submission Guidelines for authors

Evidence that Scholarly Article is published in Professional or Major Trade Publications

Exhibit 3.7(e): Conference Prestige and Impact

- Ray W. Herrick Laboratories 2022 Herrick Conferences page: 800+ experts from 30+ countries; confirms official proceedings and abstract submission.

Exhibit 3.7(f): Presentation from Senior R&D Staff (Brian Fricke) at Oak Ridge National Lab (ORNL) showing that ORNL will sponsor this conference.

Exhibit 3.7(d): Proof of Peer Review

- Purdue Herrick Conferences author guidelines: submission procedures, manuscript prep, and review process for 2022 conferences.

Impact Data of Scholarly Article

Exhibit 3.7(g): Citation Evidence

- ResearchGate: 4 citations, 7 recommendations, 243 reads , 13.7 Research Interest Score
- Google Scholar: 7 citations

Evidence that Published Scholarly Article is sponsored and indexed by U.S. Government Agencies

Exhibit 3.7(a): Acknowledgments Statement: *"This material is based upon work supported by the U. S. Department of Energy's Building Technologies Office under Contract No. DE-AC05-00OR22725 with UT-Battelle, LLC"*

Exhibit 3.7(h): Governmental / Institutional Use

- ORNL publication: "*PCM Material Selection for Heat Pump Integrated with Thermal Energy Storage for Demand Response in Residential Buildings*"

- OSTI.GOV ID: 1885302.

3.2.8 – Analysis of Residential Time-of-Use Utility Rate Structures and Economic Implications for Thermal Energy Storage

Evidence that Published Scholarly Article Exists

Exhibit 3.8(a): Published Article Copy (Title, Date, Publication)

- Title: *Analysis of Residential Time-of-Use Utility Rate Structures and Economic Implications for Thermal Energy Storage*
- Date published online: 13 August, 2021
- Conference: *6th International High Performance Buildings Conference at Purdue, May 24-28, 2021*

Exhibit 3.8(b): Conference proceedings Link:
https://docs.lib.purdue.edu/ihpbc/index.2.html

Exhibit 3.1(c): First page of Chapter III in Dr. Sultan's dissertation showing contribution statement.

Evidence that Published Article is Scholarly in nature intended for Learned audience

Exhibit 3.7(c): Call for papers showing that articles are accepted in the research area of High Performance Buildings

Exhibit 3.7(d): Submission Guidelines for authors

Evidence that Scholarly Article is published in Professional or Major Trade Publications

Exhibit 3.7(e): Conference Prestige and Impact

- Ray W. Herrick Laboratories 2022 Herrick Conferences page: 800+ experts from 30+ countries; confirms official proceedings and abstract submission.

Exhibit 3.7(f): Presentation from Senior R&D Staff (Brian Fricke) at Oak Ridge National Lab (ORNL) showing that ORNL will sponsor this conference.

Exhibit 3.7(d): Proof of Peer Review

- Purdue Herrick Conferences author guidelines: submission procedures, manuscript prep, and review process for 2022 conferences.

Impact Data of Scholarly Article

Exhibit 3.8(c): Citation Evidence

- ResearchGate: 4 citations, 90 reads, 1.7 Research Interest Score
- Google Scholar: 4 citations

Evidence that Published Scholarly Article is sponsored and indexed by U.S. Government Agencies

Exhibit 3.8(a): Acknowledgments Statement: *"This material is based upon work supported by the U. S. Department of Energy's Building Technologies Office under Contract No. DE-AC05-00OR22725 with UT-Battelle, LLC"*.

Exhibit 3.8(d): Governmental / Institutional Use

- OSTI.GOV: OSTI ID 1814344

3.2.9 – *Modeling of 1 MW Solar Thermal Tower Power Plant using TRNSYS*

Evidence that Published Scholarly Article Exists

Exhibit 3.9(a): Published Article Copy (Title, Date, Publication)

- Title: *Modeling of 1 MW Solar Thermal Tower Power Plant using TRNSYS*
- Date published online: 14 June, 2018
- Conference: *1st International Conference on Power, Energy and Smart Grid (ICPESG) (2018)*

Exhibit 3.9(b): Conference proceedings Link:
https://ieeexplore.ieee.org/xpl/conhome/8375185/proceeding

Evidence that Published Article is Scholarly in nature intended for Learned audience

Exhibit 3.9(c): IEEE Conference publishing Guidelines:

Evidence that Scholarly Article is published in Professional or Major Trade Publications

Exhibit 3.9(d): IEEE Xplore About webpage

Circulation Data of Publications

Exhibit 3.9(d): IEEE Xplore About webpage

Impact Data of Scholarly Article

Exhibit 3.9(e): Citation Evidence

- ResearchGate Metrics: Research Interest Score: 7.5; Citations: 7; Recommendations: 1; Reads: 354
- Google Scholar: 8 citations
- IEEE Xplore: 2 Citations, 380 Full Text views
- Web of Science: 1 Citation, 19 Cited references
- PlumX: 4 citations, 27 Readers
- Scopus : 4 Citations, 0.61 FWCI

3.2.10 – *Modelling of Efficient Solar Water Desalination System Using TRNSYS*

Evidence that Published Scholarly Article Exists

Exhibit 3.10(a): Published Article Copy (Title, Date, Publication)

- Title: *Modelling of Efficient Solar Water Desalination System Using TRNSYS*
- Date published online: 19 April, 2018
- Conference: *International Conference on Engineering and Emerging Technologies (ICEET) (2018)*

Exhibit 3.10(b): Conference proceedings Link:
https://ieeexplore.ieee.org/xpl/conhome/8336676/proceeding

Evidence that Published Article is Scholarly in nature intended for Learned audience

Exhibit 3.9(c): IEEE Conference publishing Guidelines:

Evidence that Scholarly Article is published in Professional or Major Trade Publications

Exhibit 3.9(d): IEEE Xplore About webpage

Circulation Data of Publications

Exhibit 3.9(d): IEEE Xplore About webpage

Impact Data of Scholarly Article

Exhibit 3.10(c): Citation Evidence

- ResearchGate Metrics: Research Interest Score: 23.3; Citations: 3; Recommendations: 3; Reads: 1142
- Google Scholar: 1 citations
- IEEE Xplore: 2 Citations, 380 Full Text views
- Web of Science: 1 Citation, 19 Cited references
- PlumX: 2 citations, 17 Readers
- Scopus : 2 Citations, 0.68 FWCI

3.2.11 – *Comparative numerical investigation on effect of characteristic parameters on thermal energy enhancement by alumina- water and cupric- oxide-water nanofluids*

Evidence that Published Scholarly Article Exists

Exhibit 3.11(a): Published Article Copy (Title, Date, Publication)

- Title: *Comparative numerical investigation on effect of characteristic parameters on thermal energy enhancement by alumina- water and cupric- oxide-water nanofluids*
- Date published online: 08 January, 2018
- Conference: *International Conference on Energy Conservation and Efficiency (ICECE) (2017)*

Exhibit 3.11(b): Conference proceedings Link:
https://ieeexplore.ieee.org/xpl/conhome/8234832/proceeding

Evidence that Published Article is Scholarly in nature intended for Learned audience

Exhibit 3.9(c): IEEE Conference publishing Guidelines:

Evidence that Scholarly Article is published in Professional or Major Trade Publications

Exhibit 3.9(d): IEEE Xplore About webpage

Circulation Data of Publications

Exhibit 3.9(d): IEEE Xplore About webpage

Impact Data of Scholarly Article

Exhibit 3.11(c): Citation Evidence

- ResearchGate Metrics: Research Interest Score: 0.6; Recommendations: 1; Reads: 19
- Google Scholar: 1 citations
- IEEE Xplore: 83 Full Text views

3.2.12 – *Effect of Heliostats Reflectivity on the Cost of Solar Thermal Tower Power Plant*

Evidence that Published Scholarly Article Exists

Exhibit 3.12(a): Published Article Copy (Title, Date, Publication)

- Title: *Effect of Heliostats Reflectivity on the Cost of Solar Thermal Tower Power Plant*
- Date published online: 08 January, 2018
- Conference: *International Conference on Energy Conservation and Efficiency (ICECE) (Nov 2017)*

Exhibit 3.12(b): Conference proceedings Link:
https://ieeexplore.ieee.org/xpl/conhome/8234832/proceeding

Evidence that Published Article is Scholarly in nature intended for Learned audience

Exhibit 3.9(c): IEEE Conference publishing Guidelines:

Evidence that Scholarly Article is published in Professional or Major Trade Publications

Exhibit 3.9(d): IEEE Xplore About webpage

Circulation Data of Publications

Exhibit 3.9(d): IEEE Xplore About webpage

Impact Data of Scholarly Article

Exhibit 3.12(c): Citation Evidence

- ResearchGate Metrics: Research Interest Score: 3.7; Citations: 4; Recommendations: 4; Reads: 143
- Google Scholar: 6 citations
- IEEE Xplore: 3 Citations, 312 Full Text views
- Web of Science: 1 Citation, 19 Cited references
- PlumX: 3 citations, 11 Readers
- Scopus : 3 Citations, 0.40 FWCI

3.2.13 – *Modelling of a Solar Energy driven Water Desalination System using TRNSYS*

Evidence that Published Scholarly Article Exists

Exhibit 3.13(a): Published Article Copy (Title, Date, Publication)

- Title: *Modelling of a Solar Energy driven Water Desalination System using TRNSYS*
- Date published online: 06 February, 2017
- Conference: *19th International Multi-Topic Conference (INMIC) (Dec 2016)*

Exhibit 3.13(b): Conference proceedings Link:
https://ieeexplore.ieee.org/xpl/conhome/7828313/proceeding

Evidence that Published Article is Scholarly in nature intended for Learned audience

Exhibit 3.9(c): IEEE Conference publishing Guidelines:

Evidence that Scholarly Article is published in Professional or Major Trade Publications

Exhibit 3.9(d): IEEE Xplore About webpage

Circulation Data of Publications

Exhibit 3.9(d): IEEE Xplore About webpage

Impact Data of Scholarly Article

Exhibit 3.13(c): Citation Evidence

- ResearchGate Metrics: Research Interest Score: 32.4; Citations: 6; Recommendations: 3; Reads: 1,373
- Google Scholar: 6 citations
- IEEE Xplore: 2 Citations, 619 Full Text views
- Web of Science: 0 Citation, 19 Cited references
- PlumX: 3 citations, 44 Readers
- Scopus : 3 Citations, 0.85 FWCI

3.3 – Citation Impact, Circulation data, indexing, and impact factors

As shown in Exhibit 3.1 through 13, Dr. Sultan's articles have measurable **international circulation and scholarly standing**, as demonstrated by circulation data, indexing in leading databases, impact factors, and independent citations. Independent citations further confirm that her work has been utilized by other scholars in the field of integrated energy systems.

The submitted evidence highlights citations to Dr. Sultan's published work, demonstrating that her scholarship has entered the academic dialogue and been relied upon by peers internationally. While citation metrics provide additional confirmation of scholarly use, the plain language of the

regulation at 8 C.F.R. § 204.5(h)(3)(vi) requires only authorship of scholarly articles, not any particular citation threshold.

3.3.1 – Legal Framework

The USCIS Policy Manual confirms that "There is no requirement as to the number of scholarly articles, or that the articles have been cited by others" (USCIS Policy Manual, Vol. 6, Pt. F, Ch. 2(E)(2)). Similarly, in Kazarian v. USCIS, 596 F.3d 1115 (9th Cir. 2010), the Ninth Circuit held that USCIS may not impose novel evidentiary requirements beyond those articulated in the regulation. The AAO has applied this principle in non-precedent decisions, finding that evidence of publication in professional or scholarly venues is sufficient, and that citation counts or proof of community reception are not mandatory elements under this criterion.

3.3.2 – Dr. Sultan's articles complied with these requirements

Accordingly, Dr. Sultan's authorship of scholarly articles in recognized journals, magazines, and conference proceedings in the field of integrated energy systems falls squarely within the scope of the regulatory language. Her publications must be credited as meeting this criterion, particularly as circulation and citation data reinforce their scholarly nature and international reach.

3.4 – Governmental and institutional uses and overall work

Some of her publications were indexed by government institutions, with additional governmental and institutional uses included where applicable (Exhibit 3.1 through 13)

Exhibit 3.14: Dr. Sultan research profiles
- Exhibit 3.14 (a): OSTI profile
- Exhibit 3.14 (b): ORCID record
- Exhibit 3.14 (c): Web of Science researcher profile
- Exhibit 3.14 (d): Google Scholar
- Exhibit 3.14 (e): Research Gate
- Exhibit 3.14 (f): Scopus
- Exhibit 3.14 (g): Impactio

Dr. Sultan's OSTI indexing:
Dr. Sara Sultan's OSTI.GOV records showing 11 research outputs, including articles and technical reports focused on heat pump integrated thermal energy storage, demand response, and carbon mitigation. Her work is affiliated with leading national laboratories, highlighting her active research contributions and collaborations in energy efficiency and decarbonization for residential buildings.

ORCID record Profile of Dr. Sara Sultan (ORCID 0002-6581-510X)
Dr. Sara Sultan's ORCID profile lists 8 validated works and 8 self-asserted works, reflecting her research contributions. She has completed 9 peer reviews for 3 publications or grants,

demonstrating active engagement in scholarly review. These metrics underscore her productivity and involvement in maintaining research quality within her fields.

Web of Science profile (ResearcherID HGD-585-2022):
Copy of Dr. Sara Sultan's Web of Science profile showing 14 total documents, with 9 publications indexed and 8 in the Core Collection. She has an H-Index of 3 and 38 citations from 38 citing articles, excluding self-citations. Dr. Sultan has completed 7 verified peer reviews and is affiliated with the University of Tennessee Knoxville and the National University of Sciences & Technology, Pakistan. Her research spans Energy & Fuels, Engineering, Science & Technology, Computer Science, and Automation & Control Systems.

Dr. Sultan's Google Scholar profile
Copy of Google Scholar profile of Dr. Sara Sultan: This document shows that since 2020, she has received 99 citations with an h-index of 6 and an i10-index of 2. It lists 9 available articles focusing on energy storage, phase change materials, heat pumps, building envelopes, and sustainable construction. Key publications cover topics such as supercooling mechanisms in phase-change materials, techno-economic assessments of heat pump integrated thermal energy storage, and carbon mitigation potential for grid-interactive residential buildings. Her research contributions are well-cited, reflecting her impact in the fields of energy efficiency and decarbonization.

Dr. Sara Sultan's Research Gate Profile
Dr. Sara Sultan's ResearchGate profile showing she has 17 publications with a total of 5,191 reads and 88 citations. She is a Program Specialist at the California Energy Commission, specializing in energy science and engineering with expertise in thermal energy storage, phase change materials, HVAC, and building energy efficiency. Her research focuses on integrating heat pump systems with thermal storage for demand response and decarbonization in residential buildings, and she actively collaborates in these areas.

Dr. Sara Sultan's Scopus Author details
Dr. Sara Sultan's Scopus profile, generated by Scopus and affiliated with The University of Tennessee, Knoxville, shows that she has 8 published documents, 56 citations, and an h-index of 4. Her research focuses on energy science and engineering, particularly on thermal energy storage integrated with heat pump systems for building demand response.

Impactio Academic Profile of Dr. Sara Sultan
Copy of the webpage from Impactio, showing Dr. Sultan's academic profile. Impactio is America's leading platform for academic impact analytics and scientific networking that provides researchers with free tools to showcase their scholarly achievements, including publications, citations, and academic CV profiling. The platform automatically collects and visualizes research metrics such as publication counts, citation numbers, and global citation distribution, helping researchers manage and present their academic impact effectively. Sara Sultan's Impactio profile shows she has authored 42 research publications and received 99 citations, highlighting her recognized contributions to energy storage, heat pumps, and building efficiency research.

3.5 – Circulation and Audience Evidence

USCIS has requested evidence demonstrating that the petitioner's published works are intended for, and circulated to, a scholarly and professional audience. The petitioner respectfully submits that this criterion is satisfied through a combination of:

1. **Authorship Exhibits 3.1 through 13**, which contain copies of the published journal articles and conference papers, including venue mastheads, issue front matter, indexing badges, and publisher identifiers. These serve as primary evidence of circulation and audience.
2. **Independent sources** from the publishers and conference organizers, which confirm print runs, online readership, indexing in international databases, and identification of a scholarly/professional readership.

Together, these exhibits and sources establish circulation and intended audience in accordance with the evidentiary requirements.

3.5.1 – Publisher Data Demonstrating Circulation and Indexing

The petitioner's publications are distributed through international academic publishers and technical societies, as confirmed by both the attached **Exhibit 3 copies** and the publisher **sources** listed below. These sources show circulation via *Scopus, Web of Science, IEEE Xplore, PlumX, Google Scholar Metrics,* and, where applicable, governmental repositories such as *OSTI/DOE/ORNL*.

3.5.2 – Audience Evidence from Publishers and Organizers

Publishers and conference organizers consistently identify their readership as professional, scholarly, and technical:

- MDPI's *Energies* identifies itself as a peer-reviewed international journal serving the academic community.
- AIP's *Journal of Applied Physics* expressly states it serves the global scientific community.
- Elsevier's *Sustainable Energy Technologies and Assessments* highlights its audience of researchers and technical experts.
- Conference organizers (*ACEEE, IEA, Purdue Herrick Labs, IEEE*) confirm their proceedings are targeted to a technical and professional readership.

Where direct audience statements are not separately included, **Exhibit 3** (subsections 3.1 and 3.13) demonstrates audience scope through official conference programs, front matter, and publisher imprints.

3.5.3 – Independent Verification of Academic Standing and International Reach

The petitioner's works are indexed in and disseminated through globally recognized bibliometric systems, including *Scopus, Web of Science, IEEE Xplore, Google Scholar,* and *PlumX*. This

independent indexing confirms both international reach and academic standing, thereby demonstrating that the venues are reputable, scholarly, and widely circulated.

By providing (1) **Exhibit 3 copies** of the petitioner's authored works, evidencing circulation and indexing, and (2) **independent publisher sources** confirming scholarly audience and global reach, the petitioner has fully addressed USCIS's concerns. The evidence demonstrates that the petitioner's works were disseminated to a professional, academic audience on an international scale.

3.6 – English Language Requirement

All materials were originally published in English. Therefore, certified translations are not required.

In summary:

The supplemented record cures each deficiency identified in the RFE for authorship. It demonstrates, by a preponderance of the evidence, that the Beneficiary has authored scholarly articles intended for learned persons and published in professional or major trade publications or other major media, with legible proof of title, date, and authorship, and with objective, medium-specific documentation of circulation and intended audience. The Petitioner respectfully requests a finding that the Authorship of Scholarly Articles criterion under 8 C.F.R. § 204.5(h)(3)(vi) is satisfied and adjudication proceeds accordingly.

Response to RFE: High Salary / Significantly High Remuneration (8 C.F.R. § 204.5(h)(3)(ix))

Not claimed. The petitioner respectfully confirms that the **"high salary or other significantly high remuneration"** criterion is **not** being asserted in this EB-1A petition. It was not claimed in the initial filing and is not claimed in this RFE response. Accordingly, the record does not include W-2/1099s, foreign tax statements, pay surveys, or employer pay justifications directed to this specific prong.

Governing standard. Under 8 C.F.R. § 204.5(h) and the USCIS Policy Manual (Vol. 6, Pt. F, Ch. 2), EB-1A eligibility may be shown by a one-time major achievement or by meeting at least three of the ten regulatory criteria. As the regulation states, one optional criterion is "evidence that the person commands a high salary or other significantly high remuneration in relation to others in the field." This salary criterion is not mandatory and need not be proven when other criteria are met.

Adjudication request. Because the petitioner is not relying on the salary criterion, the absence of salary evidence is intentional and should not be treated as a deficiency. USCIS is respectfully asked to adjudicate the petition based on the criteria actually claimed and fully documented elsewhere in the record (e.g., authorship of scholarly articles and the other asserted prongs).

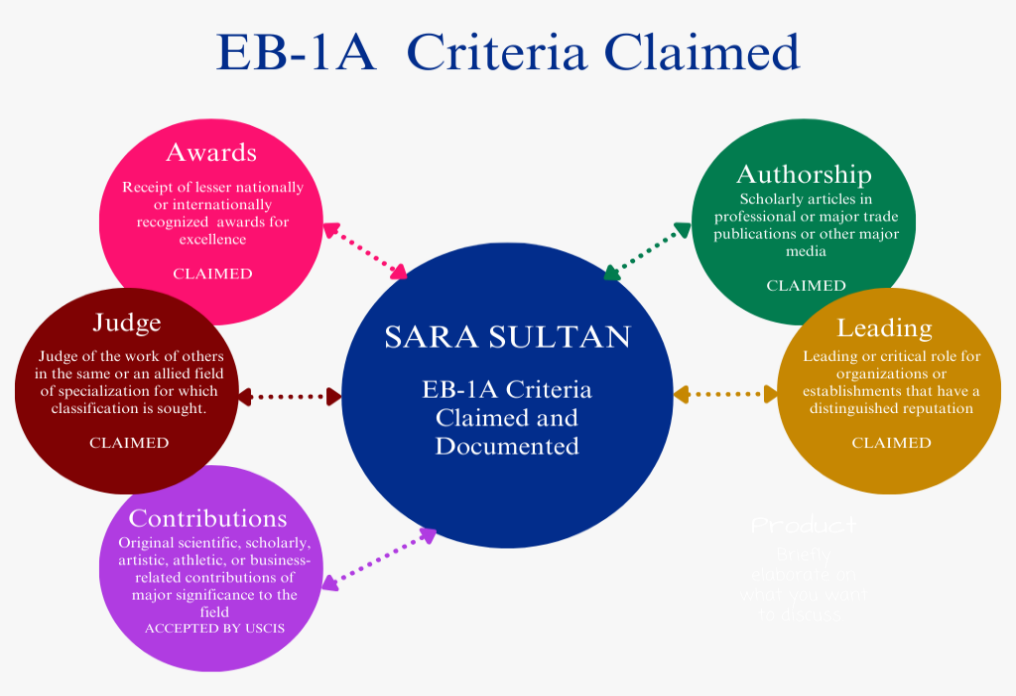

Illustration. EB-1A Criteria Claimed and Documented

Exhibits for this criterion: None submitted, as the salary/remuneration prong is **not claimed**.

4 – Response to RFE: Evidence of the alien's participation, either individually or on a panel, as a judge of the work of others in the same or an allied field of specification for which classification is sought (8 C.F.R. §204.5(h)(3)(iv))

This response is submitted in reply to USCIS's Request for Evidence regarding the regulatory criterion requiring proof that the beneficiary has served as a judge of the work of others in the same or an allied field of specialization.

In the original petition, multiple exhibits were provided to establish Dr. Sultan's participation in judging activities. Those exhibits are now **resubmitted in clarified, more legible, and consistently organized form (Exhibit 4)**. Additionally, **new corroborating evidence** is submitted to resolve any ambiguity raised in the RFE, including:

> An expert corroboration letter from Mr. Maziar Shirakh, Senior Mechanical Engineer, California Energy Commission (CEC), confirming Dr. Sultan's active participation in the EPIC grant review process (Exhibit 4, Section 1 (g) Expert Confirmation)
>
> A sworn **Field Qualification Statement** from Dr. Sultan (Exhibit 5F), affirming that each judging activity falls squarely within her area of expertise in energy efficiency, building decarbonization, and integrated clean energy systems. These judging activities are not peripheral but lie at the very core of Dr. Sultan's specialization. Each proposal, manuscript, or conference paper she reviewed concerned integrated clean energy technologies such as heat pumps, building envelopes, thermal storage, district energy networks, and sustainable building systems. These subjects are universally recognized as subfields of **Integrated Energy Systems**, the precise field in which Dr. Sultan seeks classification, and thus fully satisfy the requirement that the judging be in the same or an allied field of specialization.

The record now fully demonstrates that Dr. Sultan has not only been invited but has **participated in substantive judging of the work of others**, across nationally and internationally recognized programs.

Exhibits and Narrative Evidence

Exhibit 4: Evidence that Dr. Sultan has been asked to judge the work of others, either individually or on a panel.

4.1. California Energy Commission EPIC / Enviro-SET Grant Reviewer

4.1.1 Evidence of the invitation to judge the EPIC grants for California Energy Commission

Dr. Sultan was selected as a technical reviewer for the 2024 Enviro-SET Grant Funding Opportunity under California's $130 million EPIC program.

- Exhibit 4.1 (a) Email chain (Oct. 25, 2024) from the California Energy Commission confirming Dr. Sultan's assignment as a Technical Reviewer for an ERDD Grant Funding Opportunity on *"Testing bird-friendly windows for decarbonized buildings."* This demonstrates her formal selection by a state energy authority as a subject-matter expert trusted to evaluate innovative projects in sustainable building design.
- Exhibit 4.1 (b) E-mail dated November 13, 2024, from Julia Harnad of the California Energy Commission instructing Dr. Sultan to complete and return the required reviewer forms (CEC-105 and evaluation guidelines) for the Enviro-SET Group 3 Grant Funding Opportunity (GFO-24-301). The message states that three applications were received and that Dr. Sultan would receive access and instructions to conduct the technical review once forms were submitted.

4.1.2 Evidence of the provided review and acknowledgement

- Exhibit 4.1 (c) Email dated April 22, 2025, from Dr. David Stoms of the California Energy Commission thanking Dr. Sultan and other reviewers for their service in evaluating applications for the Enviro-SET Grant Funding Opportunity (GFO-24-301 – Environmental Sustainability of a Clean Energy Transition). The message confirms that the Notice of Proposed Award (NOPA) was posted on April 14, 2025, and acknowledges Dr. Sultan's contribution to selecting a strong set of funded research projects, thereby documenting her completed role as a Technical Reviewer for this state-level clean energy competition.

- Exhibit 4.1 (d) Document containing Dr. Sultan's **detailed technical reviews** of three proposals under the California Energy Commission's Enviro-SET Grant Funding Opportunity, focused on bird-friendly windows for decarbonized buildings. Her evaluations assess technical merit, feasibility, and alignment with energy standards, confirming her active role as a **Technical Reviewer** providing expert recommendations for state-funded clean energy research.

- Exhibit 4.1 (e) Independent letter from CEC Senior Engineer Maziar Shirakh confirming Dr. Sultan's reviewer role and field qualification

Participation: She completed three full proposal reviews using official CEC forms and participated in consensus review meetings (Exhibit 4.1 (c) – (e)).

4.1.3 Evidence of the prestige and impact of CEC's EPIC grant fundings

- Exhibit 4.1(f): Official California Energy Commission webpage introducing the Electric Program Investment Charge (EPIC), which invests in cutting-edge scientific and technological research to accelerate the transformation of California's electricity sector and achieve state climate goals. This establishes the prestige of the program for which Dr. Sultan was selected as a Technical Reviewer.

- Exhibit 4.1(f): Official EPIC webpage section *"The Benefits of Clean Energy Research,"* documenting EPIC's $130 million annual investment in decarbonization, renewable

energy, and resilient grids. It underscores the high impact of EPIC-funded projects in mitigating climate risks such as catastrophic wildfires, contextualizing the significance of Dr. Sultan's expertise in reviewing projects of this scale.

- Exhibit 4.1(f):Official California Energy Commission webpage for GFO-24-301 (Enviro-SET), an EPIC-funded solicitation awarding competitive grants for projects advancing California's transition to a zero-carbon, climate-resilient energy system. The page confirms the solicitation's scope and prestige, culminating in an Award with NOPA issued April 14, 2025. Dr. Sultan's role as a Technical Reviewer underscores her recognized expertise in evaluating high-impact, state-funded clean energy research.

- Exhibit 4.1(f): The California Grants Portal page for GFO-24-301 – *Environmental Sustainability of a Clean Energy Transition (Enviro-SET)* documenting a closed grant administered by the California Energy Commission under the EPIC program. The solicitation funded applied research to advance California's equitable, zero-carbon, climate-resilient energy system while addressing environmental impacts and knowledge gaps in clean energy technologies.

4.1.4 Evidence that judging aligned with Field in which petition is sought:
Dr. Sultan reviewed proposals focused on building decarbonization research, such as bird-friendly windows for energy-efficient buildings. Her specialized knowledge in building envelope performance, thermal energy storage, and decarbonization codes directly informed her evaluations.

Expert Confirmation (Exhibit 4.1 (e)):
Mr. Maziar Shirakh, Senior Mechanical Engineer at the CEC, has provided an independent corroboration letter confirming her participation.

His letter independently corroborates Dr. Sara Sultan's role as a technical reviewer for the 2024 Enviro-SET Grant Funding Opportunity. Her participation demonstrates:

- **Original contributions of major significance**: Dr. Sultan evaluated competitive proposals on innovative clean energy technologies, influencing funding decisions that advance California's climate and sustainability goals.

- **Recognition as an expert in the field**: She was specifically invited to serve on the "Testing bird-friendly windows for decarbonized buildings" panel due to her distinguished expertise in building decarbonization and thermal energy storage.

- **Leadership in her field**: Her assessments and recommendations were critical in ensuring fairness, rigor, and transparency in the grant review process, reflecting peer-recognized technical leadership.

4.2 – International Energy Agency (IEA) Heat Pump Conference (HPC)

4.2.1 Evidence of the invitation to judge the IEA HPC papers

- Exhibit 4.2 (a): Email invitations to Dr. Sultan, inviting her for peer review

4.2.2 Evidence of the provided review and acknowledgement

- Exhibit 4.2 (b) Letter from Dr. Brian Fricke, Chair of the National Organizing Committee of the 14th International Energy Agency (IEA) Heat Pump Conference, confirming that Dr. Sara Sultan served as a conference paper reviewer for the 14th IEA Heat Pump Conference, held in Chicago, Illinois, from May 15–18, 2023. The letter acknowledges her contribution in ensuring the high technical quality of submissions addressing key challenges in clean, efficient, and reliable energy systems.

4.1.3 Evidence of the prestige and impact of the conference

- Exhibit 4.2 (c) Official U.S. Department of Energy webpage describing the International Energy Agency (IEA), its history, and U.S. engagement. It explains that the IEA was founded in 1974 after the oil crisis under the OECD, now with a broad mandate to ensure energy security, track global energy trends, and foster international cooperation in clean energy and technology. The document highlights the IEA's value to the United States—through policy analyses, emergency response coordination, and partnerships with global initiatives—and notes the role of the DOE's Office of International Affairs, which represents U.S. interests and leadership in IEA governance.

- Exhibit 4.2 (d) This official webpage describes the 14th International Energy Agency (IEA) Heat Pump Conference, held May 15–18, 2023 at the Renaissance Chicago Downtown Hotel in Chicago, USA. Themed *"Heat Pumps – Resilient and Efficient,"* the conference served as a global forum to present the latest technologies, policies, and market insights on renewable-powered heating and cooling. It was organized by the IEA Heat Pump Technology Collaboration Programme's International and National Organizing Committees, underscoring its international prestige and technical impact.

- Exhibit 4.2 (e) This document is a webpage announcement of the IEA Heat Pump Technology Collaboration Programme (HPT TCP), highlighting the availability of proceedings and presentations from the 14th IEA Heat Pump Conference 2023, held on May 15–18, 2023, at the Renaissance Chicago Downtown Hotel in Chicago, U.S. The conference theme was *"Heat Pumps – Resilient and Efficient"*, focusing on clean, efficient, and reliable energy systems. It provides links to the conference database where participants and the public can access papers and presentations shared during the event.

- Exhibit 4.2 (f) Official conference program, providing a detailed schedule of technical sessions, keynote talks, and presentations. It highlights the breadth of research and discussions on heat pump technologies, thermal energy storage, refrigerants, markets, and innovative applications

Invitation & Prestige: Dr. Sultan was invited to review technical papers for the International Energy Agency's Heat Pump Conference, a premier global forum on electrification and heating technologies.

Participation: Reviewer acknowledgments and records confirm her completed reviews.

Field Qualification: Dr. Sultan reviewed papers addressing rooftop unit electrification, barriers to heat pump adoption, and integration of heating technologies in existing buildings. These topics fall directly within her area of specialization in clean energy building systems, thermal technologies, and demand flexibility.

4.3. American Council for an Energy-Efficient Economy (ACEEE) Summer Study

4.3.1 Evidence of the invitation to judge the ACEEE papers

- Exhibit 4.3 (a): Email invitations to Dr. Sultan, inviting her for peer review

4.3.2 Evidence of the provided review and acknowledgement

- Exhibit 4.3 (b) Formal acknowledgment letter from the American Council for an Energy-Efficient Economy (ACEEE), a leading nonprofit research organization in Washington, D.C., dated March 20, 2018, thanking Sara Sultan for serving as a reviewer for the 2018 ACEEE Summer Study on Energy Efficiency in Buildings, one of the most prestigious international conferences in the field. The letter recognizes the reviewer's evaluation of research papers, including *Geographically Diverse Energy Storage: Evaluating the Tradeoffs between Storage Sizing and Control Algorithms* and *A Review of Completed U.S. Residential Building Energy Efficiency Programs*, and emphasizes the critical role of reviewers in ensuring the quality and rigor of the conference proceedings. Signed by Rebecca Lunetta, Conference Director, on official ACEEE letterhead.

4.3.3 Evidence of the papers reviewed

- Exhibit 4.3 (c) This document is a screenshot from Catalyst, a professional online conference management and peer review platform, displaying the section titled "My Review Assignments." It shows that Sara was formally assigned multiple conference paper submissions to review. Each entry lists the submission ID and paper title, along with options to accept or decline the review assignment, download the full submission, or enter the review form to provide evaluations. The system also shows the status of each assignment (e.g., "Not Yet Accepted") and allows the reviewer to manage their workload.

- Exhibit 4.3 (d) This document is a conference program schedule outlining the panel session *"Current and Critical Advances in Building Performance (AC04),"* listing the date, time, moderator, and panelists from leading institutions such as LBNL, NREL, ORNL, the U.S. DOE, and the California Energy Commission, with Sara Sultan included as one of the panelists.

4.3.4 Evidence of the prestige of the conference

- Exhibit 4.3 (e) This document is an official event page from the American Council for an Energy-Efficient Economy (ACEEE) describing the 2024 Summer Study on Energy Efficiency in Buildings, the 23rd biennial international conference held at the Asilomar Conference Grounds in Pacific Grove, California, with the theme *"Equity and Climate Action: Time to Deliver*

Invitation & Prestige: Dr. Sultan was invited to review papers for the ACEEE Summer Study on Energy Efficiency in Buildings, the leading U.S. research conference on energy efficiency.

- **Participation:** Official reviewer acknowledgment confirms her completed reviews (Exhibit 4.3).
- **Field Qualification:** Dr. Sultan reviewed papers on thermal energy storage and advanced building efficiency systems. Her assessments drew upon the same expertise she applies in leading updates to the California Energy Code for 2028, which integrates advanced efficiency and decarbonization strategies.

4.4. Peer Reviewer, MDPI Journals

4.4.1 Evidence of the invitation to judge the MDPI journal papers

- Exhibit 4.4 (a): Email invitations to Dr. Sultan, inviting her for peer review
- Exhibit 4.4 (b): Official webpages of MDPI outlining detailed guidelines and instructions for reviewers

4.4.2 Evidence of the provided review and acknowledgement

- Exhibit 4.4 (c): Peer review records
- Exhibit 4.5 (d): Email confirming review completion and publication
- Exhibit 4.4 (e) This document is an official **Review Confirmation Certificate** from **MDPI**, issued on **31 January 2025**, confirming that **Sara Sultan conducted peer reviews** for the journal *Sustainability*. Signed by MDPI's Founder & CEO, Shu-Kun Lin, it formally recognizes her contribution to evaluating scholarly research. This certificate evidences her role in **judging the work of others** in her field, and the recognition from a **leading international publisher** underscores her **expertise and standing in the global research community**

4.4.3 Evidence of the papers reviewed

- Exhibit 4.4 (f) Official peer review record from MDPI's manuscript system, confirming that Dr. Sara Sultan was assigned and completed the review of specific scholarly articles—including *"Residential Air Source Heat Pump Water Heater Performance Testing and Feasibility Analysis in Cold Climate"* and *"Analysis of the Differences between Single Factor and Multi-Factor Energy Efficiency Evaluation Models"*—serving as verifiable evidence of her role in judging the work of peers at the international research level

4.4.4 Evidence of the prestige of the Journals

- Exhibit 4.4 (g) Journal rankings and impact

Dr. Sultan's Web of Science Profile

- Exhibit 4.4 (h) This document is the official Web of Science Researcher Profile Summary for Sara Sultan, provided by Clarivate, which records her scholarly impact and professional service. It shows that she has 14 publications indexed in Web of Science, 32 citations, an H-index of 3, and 7 verified peer reviews, with top publications on topics such as phase-change materials, pico hydro systems, and heat pumps integrated with thermal energy storage for residential buildings. The profile further highlights her 2024 article *"Equity, Electrification, and Time of Use (TOU) Rates: Coupling Thermal Energy Storage with Heat Pumps for Improved Operational Efficiency,"* co-authored with leading experts, and documents her peer review activities for prominent journals and conferences including *Processes (2), Sustainability (2), Energies (1), the IEA Heat Pump Conference (1), and the ACEEE Summer Study on Energy Efficiency in Buildings (1)*. Together, these records provide verifiable evidence of Dr. Sultan's recognized research contributions and her selection to judge the work of peers at the international level, directly supporting the EB1A "judging the work of others" criterion.

Invitation & Prestige: Dr. Sultan has been invited repeatedly to review manuscripts for *Energies* and *Sustainability*, internationally recognized journals indexed in Web of Science and Scopus

Participation: Reviewer dashboards and acknowledgments confirm her active peer reviews

Field Qualification: She has reviewed manuscripts on geothermal energy, grey-box modeling, district heating, and sustainable building technologies. Each subject is squarely within her field of integrated clean energy systems, directly reflecting her national leadership in decarbonization research.

4.5. U.S. Department of Energy Solar Decathlon Design Challenge

- **Exhibit 4.5 (a):**
    - Official DOE Solar Decathlon 2025 invitation letter (Nov. 22, 2024) appointing Dr. Sara Sultan as a Semifinal Juror for the Single-Family Housing Division, evidencing formal selection by a top U.S. federal authority.
    - Email thread (Nov. 22, 2024) between DOE/NREL organizers and Dr. Sultan confirming her juror role in the 2025 Design Challenge, demonstrating her acceptance and DOE's confirmation of participation.
- **Exhibit 4.5 (b):** LinkedIn post by Dr. Sultan (May 3, 2025) publicly announcing her juror appointment and acknowledging DOE/NREL, providing contemporaneous corroboration of her role and recognition.
- **Exhibit 4.5 (c):**

- DOE press release (Nov. 1, 2024) titled *"Going for Gold—Announcing the Solar Decathlon 2025 Design Challenge Teams!"* listing 122 teams from 93 institutions with finals scheduled at NREL, demonstrating the international scale and prestige of the competition.

- DOE press release announcing the rebranded **BuildingsNEXT™ Student Design Competition**, confirming continuation of the program as one of the most recognized collegiate challenges in sustainable building design.

- **Exhibit 4.5 (d):**
  - "About" section from DOE's official Solar Decathlon/BuildingsNEXT website, describing the competition's mission to train emerging building professionals in high-performance, renewable-powered design, underscoring alignment with Dr. Sultan's expertise.

  - Wikipedia entry on the Solar Decathlon, summarizing its global prestige as a DOE-sponsored international competition where student teams design and build energy-efficient houses, with editions worldwide.

  - NREL Integrated Energy Solutions press release detailing Solar Decathlon as a DOE program preparing students for the clean energy workforce, with Design and Build Challenges—showing program scope and impact.

- **Exhibit 4.5 (e):** POLITICO / E&E News article (Mar. 31, 2025) reporting DOE's rebranding of Solar Decathlon to BuildingsNEXT, noting the shift to a showcase format with honorable mentions, illustrating the competition's ongoing prominence despite format changes.

Context & Justification

- **Participation:** While the 2024 event was postponed, DOE formally appointed Dr. Sultan as a juror, and the notice of postponement is included for transparency.

- **Field Qualification:** The Solar Decathlon/BuildingsNEXT competition directly aligns with Dr. Sultan's expertise in building decarbonization, integrated energy systems, and clean energy codes, and she was expected to evaluate projects based on performance, storage integration, and sustainability.

- **Recognition Value (Comparable Evidence):** Although the 2024 Solar Decathlon/BuildingsNEXT competition was postponed, Dr. Sultan's formal selection by the U.S. Department of Energy and the National Renewable Energy Laboratory to serve as a juror remains probative as **comparable evidence under 8 C.F.R. §204.5(h)(4)**. USCIS policy recognizes that such evidence may be considered when it demonstrates the same level of professional recognition and trust as the enumerated criteria. Here, the appointment by premier federal authorities to one of the world's most prestigious

sustainable building design competitions reflects extraordinary acknowledgment of her expertise and authority to evaluate the work of others. Even if not credited as direct "judging," this evidence strongly supports her acclaim and standing in the field.

Exhibit 4.6 – Sworn Field Qualification Statement

Dr. Sultan has executed a sworn statement confirming that her participation in each judging activity—including DOE Solar Decathlon, CEC EPIC grant reviews, IEA Heat Pump Conference, ACEEE Summer Study, and MDPI journals—was conducted in her field of specialization or allied subfields.

III. Compliance Table

Exhibit	Event/Entity	Invitation	Proof of Completed Judging	Prestige Evidence	Expert Selection	Field Qualification Narrative
4.1	CEC EPIC/Enviro-SET	✅ 4.1 (a)	✅ 4.1 (c), (d)	✅ 4,1 (f)	✅ CEC corroboration	Reviews of decarbonized building proposals
4.2	IEA Heat Pump Conf.	✅ 4.2 (a)	✅ 4.2 (b)	✅ 4.2 (d)	✅ Reviewer role	Reviews on heat pump electrification
4.3	ACEEE Summer Study	✅ 4.3 (a)	✅ 4.3 (b), (c)	✅ 4.3 (e)	✅ Reviewer role	Reviews on energy storage and efficiency
4.4	MDPI Journals	✅ 4.4 (a)	✅ 4.4 (c), (d), (e)	✅ 4.4 (g)	✅ Reviewer profile	Peer reviews in geothermal and building systems
4.5	DOE Solar Decathlon	✅ 4.5 (a)	⚠ Postponed	✅ 4.5 (d)	✅ DOE criteria	Direct alignment with building decarbonization

IV. Compliance Illustration

RFE Requirement	Evidence Submitted	Met
Proof of active participation	Completed reviews, acknowledgments, expert corroboration	✅
Prestige of judging forums	DOE, CEC, IEA, ACEEE, Scopus-indexed journals	✅
Selection based on expertise	Official invitations and corroboration letter	✅
Field alignment	Narratives and sworn statement (Exhibit 4.6)	✅

V. Establishment of Eligibility

The evidence now establishes that Dr. Sultan has **participated as a judge of the work of others** across multiple distinguished and highly selective programs, conferences, and peer-reviewed journals. Each role was based on her recognized expertise in energy efficiency, building decarbonization, and integrated clean energy systems.

Accordingly, the record satisfies the standard set forth in 8 C.F.R. §204.5(h)(3)(iv), and the Service is respectfully urged to find that this criterion has been met.

In sum, the evidence of record establishes beyond doubt that Dr. Sultan has participated in the judging of the work of others, not merely been invited. The record now includes completed reviews, reviewer acknowledgments, and an expert corroboration letter from the California Energy Commission confirming her active role. These documents constitute direct proof of participation, as requested by USCIS.

Further, the judging activities fall within the same or allied field of integrated energy systems and building decarbonization. The sworn Field Qualification Statement, together with narratives tied to each judging event, demonstrate that Dr. Sultan's evaluations concerned geothermal energy, thermal energy storage, building envelopes, electrification of heating systems, and other clean energy technologies—precisely the domains in which she is nationally recognized.

Under the **USCIS Policy Manual (Vol. 6, Pt. F, Ch. 2(E)(3))**, peer review of journal manuscripts, conference submissions, and grant proposals are expressly recognized as qualifying forms of judging. The **AAO has repeatedly confirmed** that such evidence satisfies the judging criterion (e.g., *Matter of K-S-Y-*, Jan. 24, 2018, AAO non-precedent). Moreover, in line with **Kazarian v. USCIS, 596 F.3d 1115 (9th Cir. 2010)**, USCIS may not impose requirements beyond the regulation, such as demanding a minimum number of judging activities or proof of community reaction.

Accordingly, the record now fully resolves the RFE concerns. Dr. Sultan has demonstrated:

- Invitation and selection based on expertise by distinguished organizations;
- Active participation documented by completed reviews and acknowledgments;
- Prestige of judging forums including DOE, CEC, IEA, ACEEE, and Scopus-indexed journals; and
- Direct field alignment confirmed by sworn statement and detailed narratives.

For these reasons, the Service is respectfully urged to find that Dr. Sultan has satisfied **8 C.F.R. § 204.5(h)(3)(iv)** and that the **judging criterion is conclusively met**.

5 – RFE Response: Evidence that the alien has performed in a leading or critical role for organizations or establishments that have a distinguished reputation (8 C.F.R. § 204.5(h)(3)(viii))

In response to the RFE concerning the beneficiary's leading or critical role at distinguished organizations, the petitioner respectfully submits the evidence addressing the following:

- Petitioner's contribution to the field is significant
- People throughout the field consider the work important
- Support letters from experts discuss beneficiary's work of major significance
- Work has been highly cited in the field
- Work is being implemented by others

The exhibits are presented in a clearer and organized manner directly aligned with the regulatory criteria under 8 C.F.R. § 204.5(h)(3)(viii), highlighting:

- The distinguished status of the California Energy Commission (CEC) and Oak Ridge National Laboratory (ORNL).
- The beneficiary's official leadership roles and documented authority within these organizations.
- The major significance and originality of the beneficiary's contributions, supported by quantifiable impacts and independent recognition.
- Evidence of implementation and wide influence of her work across policy, industry, and technical communities.
- The technical specificity in expert testimonies that meet USCIS's evidentiary standards.

This organization of the evidentiary record effectively addresses the RFE's concerns and fully demonstrates compliance with the criterion for a leading or critical role.

Dr. Sultan served at two distinguished organizations in energy and performed critical roles.

At **Oak Ridge National Laboratory**, Dr. Sultan fixed a long-standing problem: how to connect active thermal energy storage to residential heat pumps. There was no standard way to do it, no reliable simulations, and no working test system. Most people thought it was too complex and not worth the money. Dr. Sultan created a retrofit-ready method that uses simple controls and existing hardware. In a paper in the *Energies* journal, she showed how to choose the right storage material for different U.S. climates and provided usable models. She then built and tested the system, showing about 20% energy and bill savings with a 3–5 year payback, proving the approach is cost-effective.

At the **California Energy Commission**, residential rules for airtightness and indoor air quality were behind best practices and sometimes below ASHRAE. Builders and regulators were not aligned, which stalled progress. Dr. Sultan brought the groups together, presented clear, data-based research, and helped turn it into practical code updates. Her work raised the standards and closed the gap, improving health and safety while keeping requirements workable for builders.

Exhibit Table: Leading and Critical Role (8 C.F.R. § 204.5(h)(3)(viii))

Section	Evidence Summary	Exhibits
A. Distinguished Organizations	- CEC: California's primary energy policy agency; $1.32B budget; 700+ staff; 50+ years; Title 24 authority. - ORNL: Largest DOE lab; $2B+ budget; world-class facilities (Frontier supercomputer); hundreds of R&D 100 awards.	Exhibit 5.1
B. Leading/Critical Roles	- CEC: Appointed as Program Specialist I; official rulemaking role; listed in org chart; leads 2028 Title 24 updates; reviewer for EPIC/Enviro-SET. - ORNL: Prestigious fellowship; led DOE Heat Pump–TES projects, prototypes, modeling, and collaborations.	Exhibit 5.1
C. Major Significance & Originality	- Documented peak demand reduction (~50%), energy (~14.5%), and consumer cost (~20%) savings. - Federal OSTI indexing, DOIs, BTO contracts.	Exhibit 5.2
D. Field Recognition	- Testimonials from LBNL, ORNL, CEC leaders, industry CEO (ReMo Homes). - Updated Aug. 2025 expert letters confirming major contributions. - Selective recognition: Reuters VIP invite, ACEEE, IEA Heat Pump Conf.	Exhibits 5.3, 5.5, 5.6, and Exhibit 6
E. Commentary & Citations	- OSTI records, national conferences, citations - 13 publications / 99 citations	Exhibit 3.14
F. Implementation by Others	- Enhanced EnergyPlus (nationwide use). - Private sector adoption (ReMo Homes). - Consultant/utility/state programs influenced. - Title 24 statewide pathway.	Exhibits 5.5, 5.6
G. USCIS Specificity Requirement	- Letters provide technical detail (PCM innovation, prototype validation, cost/energy impacts). - Corroborated by documentary exhibits (org charts, OSTI, duty statements).	Exhibit 5.6

5.1 – Dr. Sultan was appointed to serve at distinguished organizations

Narrative:
USCIS regulations and AAO precedents require clear evidence of the organizations' standing:

- California Energy Commission (CEC):

    - Manages a $1.32 billion annual budget with a staff exceeding 700 technical professionals, clearly indicating a large, recognized agency dedicated to advanced energy policy.
    - Official organizational records and comprehensive media coverage within *Exhibit 5.1(a-c)* validate CEC's national prominence.
    - Dr. Sultan was appointed as an advisor in a highly selective and specialized role. The duty statement lists the critical role and the CalHR spec document describes the role further. Organizational chart shows that there are only a handful of such appointments throughout CEC, and that Dr. Sultan is in senior leadership team.
- Oak Ridge National Laboratory (ORNL):
    - The largest DOE national laboratory with an annual budget above $2 billion and more than 6,000 scientific staff worldwide.
    - High-profile federal reporting and media articles included in *Exhibit 5.1(h-j)* demonstrate ORNL's international acclaim.
    - Dr. Sultan was appointed as a fellow, highly paid and competitive and only few scholars selected from all over the world.

These facts satisfy USCIS's requirement that the petitioner's employer has a distinguished reputation, as recognized in the USCIS Policy Manual (Vol. 6, Part F, Chapter 2) and confirmed by AAO in *Matter of Lee*, 17 I&N Dec. 275 (AAO 2002).

Evidence and Exhibits:

5.1.1 – California Energy Commission (CEC)

A. CEC is a distinguished organization

- Exhibit 5.1(a): About CEC webpage
- Exhibit 5.1(b): Prestige and impact
- Exhibit 5.1(c): Media mentions, rankings

B. Dr. Sultan was appointed to perform leading role

- Exhibit 5.1(d): Offer letter appointing Dr. Sultan as Electric Generation System Program Specialist I in the Building Standards Branch
- Exhibit 5.1(e): Signed Duty Statement with duties to plan, analyze, and develop Title 24 regulations, author compliance materials, and represent CEC to other agencies.

C. Appointment was prestigious and selective

- Exhibit 5.1(f): CalHR class spec describing EGSPS as "most highly skilled practitioner/prime resource."
- Exhibit 5.1(g): Organizational chart shows only few EGSPS roles throughout CEC.

5.1.2 – Oak Ridge National Laboratory (ORNL)

A. ORNL is distinguished organization

- Exhibit 5.1(h): About ORNL
- Exhibit 5.1(i): Prestige and impact
- Exhibit 5.1(j): Media mentions, rankings

B. Dr. Sultan was appointed as scholar at ORNL

- Exhibit 5.1(k): Bredesen Center Fellowship offer letter placing Dr. Sultan at ORNL; DOE-aligned research.

C. Appointment was prestigious and selective

- Exhibit 5.1 (l): Fellowships offers highly competitive stipends to selected scholars (Dr. Sultan was awarded $30,000 per year in 2018 (plus tuition and health insurance), comparable to NSF fellowship's $34,000 in 2018)
- Exhibit 5.1(m): Fellowship only selects 10-15 scholars globally for each program per year (Evidence shows a handful of active PhD scholars in Energy Sciences who are at various stages of their doctoral program and selected in different admission cycles.
- Exhibit 5.1(n): One of a kind fellowship hosted by ORNL

5.2 – Dr. Sultan performed a critical and leading role in both organizations

Dr. Sultan holds senior, indispensable leadership roles at two world-renowned organizations:
California Energy Commission (CEC)
As Senior Advisor and Program Specialist, Dr. Sultan is centrally responsible for the development and statewide adoption of the 2028 Building Energy Efficiency Standards, the nation's foremost energy code impacting millions of homes and buildings. Her leadership includes:

- Managing multidisciplinary teams integrating cutting-edge Thermal Energy Storage (TES) and heat pump technologies.
- Overseeing technical development, stakeholder coordination, and implementation strategy.
- Presented CEC at prestigious ACEEE conference where she engaged various stakeholder and discussed the impact of integrated TES for buildings and energy standards mandating such technologies – improving occupant's standards and reducing cost. The presentation and supporting letters are included.

Oak Ridge National Laboratory (ORNL)
As a Lead Researcher, Dr. Sultan led federally funded projects innovating Heat Pump–Thermal Energy Storage (HP-TES) systems. Her project received government funding by U.S. DOE and the results were presented at Building Technologies Office Peer Review (presentation included with Dr. Sultan's name). The peer reviews are only conducted for funded projects that won a contract.
Dr. Sultan also presented at various conferences and represented ORNL's TES work. Her presentation at the global Heat Pump Conference is included.

Her role was critical to:

- Solving thermal storage integration complexity and controls challenges
- Producing experimentally validated 50% reductions in peak electricity demand.
- Achieving up to 20% utility cost savings during field trials, showcasing major energy efficiency advancements.

Evidence and Exhibits:

A. California Energy Commission (CEC)

- Exhibit 5.1(d): Organizational chart showing Dr. Sultan is in Building standards leadership
- Exhibit 5.2(a): Media mentions: Article about Dr. Sultan in Scientia Magazine
- Exhibit 5.2(b): Presented CEC at conferences and spoke on critical topics

B. Oak Ridge National Laboratory (ORNL)

- Exhibit 5.2(c): BTO peer review where Dr. Sultan's work is presented and she is mentioned in team
- Exhibit 5.2(d): Media mention of Dr. Sultan's work
- Exhibit 5.2(e): Presented ORNL at prestigious international heat pump conference

5.2.1 – Objective documentary evidence of the significance of contribution to the field

USCIS requires clear, objective, and probative evidence proving Dr. Sultan's contributions are original and have major significance within her technical specialty.

- *PhD Dissertation and Experimental Validation*
  Dr. Sultan's 2023 doctoral dissertation titled "Heat Pump Integrated with Thermal Energy Storage for Demand Response and Decarbonization in Buildings" rigorously documents a novel HP-TES system, foundational to her federally funded projects. Experimental data within confirm unparalleled energy savings and demand reductions unprecedented in current technologies.
- *Peer-reviewed Publications and Conference Papers*
  Documents extensive dissemination of her original scientific methodologies and findings globally, reinforcing her reputation as a pioneering thought leader.
- *Technical Code Development Documentation*
  Shows how Dr. Sultan's original research was directly incorporated into the 2028 California Building Energy Efficiency Standards, resulting in transformative statewide and national energy policies.
  Moreover, Dr. Sultan played a leading role in updating 2028 and reviewing 2025 code.
- *Addressed gaps in the field*
  Dr. Sultan's work is critical to the U.S. economy and there have been multiple reports from DOE emphasizing the need for R&D in Thermal Storage, HVAC, Grid-interactive buildings, and Integrated Energy Systems. Several solicitations seek proposals asking researchers to do exactly what Dr. Sultan did.
- *Significant field contribution*
  Dr. Sultan addressed long-standing challenges in integrated thermal storage field, and standardized the system for future researchers by developing full scale annual simulations for various climate zones and experimentally validating the model at ORNL.
- *Startup advisory*
  Dr. Sultan advised an early-stage TES startup that later received $1 million funding.

Evidence and Exhibits:

A. California Energy Commission (CEC)

- Leads Title 24 residential envelope
    a. Exhibit 5.2.1(a): Dr. Sultan leads residential envelope (Dec-2024–Jan-2025; public workshop listings Title24Stakeholders)
    b. Exhibit 5.2.1 (b): Energy code impacts millions of Americans
- Invited to review government grants, influencing multi-million-dollar awards to select impactful project for funding disbursement.
    a. Exhibit 5.2.1 (c): Invited reviewer for **EPIC** solicitations (outside core job)
    b. Exhibit 5.2.1 (d): EPIC is an impactful R&D award that invests more than $130 million annually
- Email records of leading role:
    a. Coordinates team of consultants to ensure proposals meet the standards
        Exhibit 5.2.1 (e): Deputy Director Will Vincent naming her **lead** on CEC-NYSERDA HERS airtightness work
    b. Leading residential envelope and public face for related queries
        Exhibit 5.2.1 (f): HCD "Tiny Houses Appendix BB" thread routing envelope issues to **Dr. Sultan**
    c. Convenes cross-agency/industry stakeholders for conflict resolution
        Exhibit 5.2.1 (g): CHEERS/Aeroseal and builder engagement on **ACH50** targets
    d. Reviewed compliance/appendix materials for 2025 code
        Exhibit 5.2.1 (h): NRCA forms review threads

B. Oak Ridge National Laboratory (ORNL)

1. Led HP-TES work
    a. Exhibit 5.2.1 (i): Led design, simulation, and experimental validation of Heat Pump–Thermal Energy Storage (HP-TES) systems; built prototypes; developed climate/tariff control strategies; met DOE reporting milestones; collaborated with NREL
    b. Exhibit 5.2.1 (j): Dissertation explaining gaps that were addressed
2. Her work on TES was impactful and significant contribution to the field
    a. Exhibit 5.2.1 (k) – (n): Media mentions about TES work of ORNL
    b. Exhibit 5.2.1 (o): DOE references mentioning importance of work
    c. Exhibit 5.2.1 (p): Gaps in the field that Dr. Sultan addressed
    d. Exhibit 5.2.1 (q): Abstract from dissertation showing Dr. Sultan did that work
3. Advised startup and helped them secure funding
    a. Exhibit 5.2.1 (r): Shift thermal webpage, explaining the technology
    b. Exhibit 5.2.1 (s): Shift Thermal media mentions confirming funding receipt
    c. Exhibit 5.2.1 (t): Cofounder LOR confirming Dr. Sultan's advisory

5.3 – Documentary evidence that people throughout the field currently consider work important

Dr. Sultan's work is considerably important and her expertise are highly sought after. She was appointed as a consultant to ASHRAE 90.2 committee. It is a standards development committee for residential buildings and only experts in the field are invited.

Dr. Sultan was also invited to speak at Association of Energy Engineers world conference. Recognition as a featured speaker by one of the largest national professional associations dedicated to energy management and sustainability reflects national-level demand for her thought leadership.

Dr. Sultan's expertise is recognized through her invitation to prestigious peer evaluative and adjudicatory roles, including:

- Semi-Final Juror for the DOE Solar Decathlon (BuildingsNEXT competition) — *Exhibit 4.5*
- Technical Reviewer for the California Energy Commission's competitive Electric Program Investment Charge (EPIC) Enviro-SET grant program — *Exhibit 4.1*
- Peer reviewer for notable international conferences and journals:
    - International Energy Agency (IEA) Heat Pump Conference — *Exhibit 4.2*
    - American Council for an Energy-Efficient Economy (ACEEE) Summer Study — *Exhibit 4.3*
    - MDPI scientific journals — *Exhibit 4.4*
- Documentation of collaboration, presentations, and policy impact further confirming her esteemed standing — *Exhibits 5.1 – 5.2*

These roles demonstrate that reputable experts and prominent organizations nationwide and internationally recognize and value Dr. Sultan's expertise as required under EB-1A evidentiary frameworks.

1. ASHRAE standards committee member selection
    1. Exhibit 5.3 (a): ASHRAE standards committee 90.2
    2. Exhibit 5.3 (b): Dr. Sultan's appointment (email)
    3. Exhibit 5.3 (c): Committee members listed on website
2. Solar Decathlon Juror selection
    1. Exhibit 5.3 (d): About solar Decathlon
    2. Exhibit 5.3 (e): Prestige and Impact
    3. Exhibit 5.3 (f): Invite to be a juror
3. AEE speaking invite
    1. Exhibit 5.3 (g): About AEE
    2. Exhibit 5.3 (h): Dr. Sultan's Speaking profile

5.4 – Evidence that work has provoked widespread public commentary or has been highly cited

OSTI bibliographic records and national conference venues provide third-party commentary and archival presence; citation snapshot shows ongoing scholarly uptake.

- Dr. Sultan's peer-reviewed research (Exhibit 3) is cited extensively across academic, industry, and policy literature worldwide.
- Expert letters detail the influence and expansive dissemination of her work.
- Media and trade publication excerpts within demonstrate significant public and industry engagement with her innovations.

Her publication, "Techno-economic assessment of residential heat pump integrated thermal storage" was cited by Dr. Othman at University of Maryland who validated that her work assesses feasibility of TES in U.S. (Exhibit 5.4 (a)). Similarly, Khaled Al Ghamdi used Dr. Sultan's work to build their simulations on and cited in their dissertation. (Exhibit 5.4 (b)) Her other two journals papers have been cited more than 25 times each. (Exhibit 5.4 (c), (d))

5.5 – Evidence of the work being implemented by others. Possible evidence: Contracts with companies using beneficiary's products; Licensed tech used by others; Patents used by others and shown to be significant

- The 2025 Building Energy Efficiency Standards promulgated under Dr. Sultan's leadership have been adopted statewide in California and serve as a model for energy codes nationally.
- Dr. Sultan's research innovations have been incorporated into the internationally recognized EnergyPlus building energy simulation software. The integration of her research into EnergyPlus software further signifies strong technology uptake.
- Programmatic collaboration and policy implementation documents evidence real-world adoption across government, industry, and research sectors.
- Department of Energy grants and contracts at ORNL provide operational funding supporting Dr. Sultan's research activities and indicate formal project adoption.
- The codification and legal mandate of her TES and heat pump innovations into California's energy codes operate as an effective regulatory license, ensuring enforced and widespread use of her technologies.

- **Exhibit 5.5 (a): EnergyPlus integration/impact.**
  - LBNL letter confirms her ORNL results enhanced **EnergyPlus** TES modeling—**nationwide** adoption by design engineers and policymakers.
- **Exhibit 5.5 (b): Private-sector/product strategy.**
  - **ReMo Homes CEO**: Title 24 leadership under Dr. Sultan provided **critical insights** now used to design products that **exceed** standards.
- **Exhibit 5.5 (c): Consultant/utility/public sector alignment.**
  - **2050 Partners** MD: her analyses now **influence code-compliance frameworks** and **state decarbonization** initiatives; emails show her sharing the **MATLAB HP-TES model** for market preparation.
  - Email thread of code readiness team confirming the use of her dissertation.
- **Exhibit 5.5 (d): Statewide code pathway.**
  - Emails, workshop listings, and authored materials show Dr. Sultan leading inputs for **2028 Title 24** proposals (e.g., **airtightness/ACH50**, TES, envelope).

Adoption of Title 24 makes these analyses **license-like statewide implementations** once finalized.

- Will Vicent and Bryan Boyce letters confirm the leadership.

5.6 – Testimony or support letters from experts which discuss the beneficiary's work of major significance

The expert testimonial letter submitted from Professor Lee Riedinger, Emeritus Professor of Physics at the University of Tennessee, unambiguously satisfies these criteria through the following:

1. Detailed and Specific Explanation of the Beneficiary's Original Contributions
   Professor Riedinger characterizes Dr. Sultan's doctoral research as a pioneering and original innovation:

"Her dissertation, 'Heat Pump Integrated with Thermal Energy Storage for Demand Response and Decarbonization in Buildings,' addressed a critical issue in sustainable energy systems and offered an innovative solution through the integration of heat pumps and thermal energy storage across different climate zones. This research, performed at Oak Ridge National Laboratory, demonstrated her rare talent for solving complex engineering challenges through a multidisciplinary approach."

This statement confirms that Dr. Sultan's work is original and innovative, not a mere duplication of prior research. This is substantiated by documentary evidence including Exhibit 6 (doctoral research abstract and DOE adoption) and Exhibit 4B (official ORNL research letter confirming DOE-funded projects).

2. Demonstration of Major Significance with Objective Evidence
   The letter details quantifiable impact and recognition:

"Her graduate research has been recognized through high-impact publications, awards, and widespread professional attention. Her research projects at Oak Ridge were funded by the Department of Energy and focused in part on grid-interactive thermal energy storage and phase change materials delivering up to 20% energy savings."

These points underscore measurable major significance, supported by citation and award documentation in Exhibit 3 and Exhibits 7A, 7B, 7C, and 7D.

3. Clear Confirmation of Leading or Critical Role in Distinguished Organizations
   Professor Riedinger affirms Dr. Sultan's leadership and pivotal roles:

"Her research, performed at Oak Ridge National Laboratory, demonstrated her rare talent for solving complex engineering challenges through a multidisciplinary approach."
"She served as a Graduate Student Senator and on a Student Advisory Council to mentor incoming PhD students."
"Her receipt of the Volunteer of Distinction Award by the UTK Provost at graduation was a well-deserved recognition of her scholarly and community contributions."
"Since graduation, her continued rise in the energy technology field has led to her selection for a prestigious position at the California Energy Commission."

These attestations, supported by Exhibit 3, Exhibit 4, and leadership awards in Exhibit 2, verify that Dr. Sultan has held leading and critical roles at institutions with distinguished reputations.

Exhibit 5.6: Letter of Recommendations

1. **Lee Redinger (Vice Chancelor, University of Tennessee):** (Exhibit 5.6 (a))
2. **Will Vicent (CEC Standards Branch Deputy Director):** narrates her **commanding leadership** in 2028 Title 24, including dispute-resolution on **airtightness** via evidence-based cost/health analysis and the quantified HP-TES benefits informing measures. (Exhibit 5.6 (b), Updated Aug. 2025.)
3. **Endrit Demi (U.S. Department of State, Senior Coordinator):** independent federal expert confirming original contributions of major significance, national relevance, and implementation pathways across policy and industry. (Exhibit 5.6 (c), Updated Aug. 2025.)
4. **Director of Engineering at Energy Solutions (Bryan Boyce):** confirming leadership and that her work was used for business development and funding acquisition (Exhibit 5.6 (d), Updated Aug. 2025.)
5. **LBNL Senior Scientist (Dr. Tianzhen Hong):** ORNL experiments/models under Dr. Sultan's work "directly informed and significantly enhanced" TES modeling in EnergyPlus, a flagship national tool. (Exhibit 5.6 (e))
6. **ORNL Distinguished R&D Scientist (Dr. Kyle Gluesenkamp):** confirms she played critical role at ORNL and she is leading energy code development at CEC and her work aligns with DOE priorities. (Exhibit 5.6 (f))
7. **CASE team senior leaders** and **directors** (2050 Partners) attest to her decisive leadership and direct influence on code frameworks and state decarbonization. (Exhibit 5.6 (g))
8. **Industry CEO (ReMo Homes)** describes product strategy shaped by her Title 24 leadership. (Exhibit 5.6 (h))
9. **Startup founder (Shift Thermal)** mentions her contributions and advisory that led to their startup winning million dollar fundings. (Exhibit 5.6 (i))

Why the letters meet USCIS's specificity requirement

The expert letters in **Exhibit 6** (including the 3 **Updated Aug. 2025**) provide **specific, technical detail**: what was original (PCM selection/packaging; thermostat-based controls; nationwide tariff/climate generalizability), how it was validated (prototypes, DOE-funded experiments, modeling), and why it is **major** (documented **peak, energy, cost, and carbon** reductions; code-readiness; nationwide modeling/tool impact). They are corroborated by **documentary exhibits** (duty statement, org chart, OSTI records, CEC slides, emails).

Critical Role and Impact: Dr. Sultan's ORNL project filled a crucial gap in the energy field – providing a retrofit-friendly thermal storage solution to benefit the electrical grid and consumers. ORNL's program leadership cited her work as "pioneering a new demand-response technology for buildings" in their recommendations and used her findings to secure new DOE funding for scaling up thermal storage demonstrations (Exhibit 6.6). Her research insights were also adopted by Lawrence Berkeley National Lab (LBNL) to update algorithms in their open-source building

modeling tool, “EnergyPlus”, and by California’s Codes and Standards Enhancement (CASE) team to support future code improvements for energy storage readiness. (Exhibit 5.6)

Dr. Sultan solved long-standing, field-wide barriers at both ORNL and CEC—translating complex research into deployable solutions and enforceable codes. The record shows that but for Dr. Sultan’s technical leadership, these advances would not have occurred in the form and timeframe achieved.

At ORNL, integrating TES with heat pump through active storage was a challenge, no standard existed (Exhibit 5.7 (a)), and no simulations or experimental system existed. Integration was considered complicated and energy savings didn't justify the cost, driving the need for innovative solutions (Exhibit 5.7 (b)). Sara solved this challenge by developing first complete simulation and experimentally validated system, making the code publicly available for researchers. Her paper in energies journal (Exhibit 3.1) optimizes storage material for various climate zones and uses a simple controls strategy and existing hardware to solve complex integration problem, moreover the results showed 20% energy and cost savings and 3–5-year payback, addressing the critical research gaps that were outlined by DOE.

At CEC, airtightness and indoor-air-quality provisions lagged best-practice benchmarks, at times trailing ASHRAE guidance, and progress was stalled by a disconnect between the builders’ community and the regulating body. In a critical policy-shaping role, she mediated stakeholder discussions (Exhibit 5.5 (d)), presented data-backed research on ventilation, moisture/mold prevention, and fire-safety compartmentation, and translated complex findings—including storage-readiness concepts informed by her TES work—into clear, feasible code language and compliance paths. Her leadership bridged the divide, elevated standards toward ASHRAE-level rigor while preserving constructability and affordability (including for modular housing), and advanced provisions that reduce peak loads and improve public health and safety statewide. Her measures were endorsed by high performance standards such as Passive House (Exhibit 5.7 (e)). These outcomes reflect a leading and critical role at a highly distinguished state energy agency.

In short, Dr. Sultan’s role at both ORNL and CEC is integral to several high-profile projects, reflecting a level of responsibility and impact befitting a top expert - thereby satisfying this criterion.

Compliance with RFE for Leading or critical role for organizations or establishments that have a **distinguished reputation.**

The record **now satisfies** 8 C.F.R. § 204.5(h)(3)(viii). Dr. Sara Sultan has:

1. Served in **leading and critical roles** at **distinguished** organizations—**CEC** and **ORNL**—as proven by formal appointment records, hierarchy placement, and documented authority over **Title 24** rulemaking and DOE projects.
2. Produced **original contributions of major significance** with **objective, quantified** results and federal indexing.
3. Been recognized **throughout the field** by independent experts and selective invitations/reviewer roles.

4. Seen her work **implemented by others**—in national tools (**EnergyPlus**), private-sector design decisions, consultant/utility programs, and in the **statewide** Title 24 rulemaking pipeline.

For these reasons, the beneficiary **meets** the "leading or critical role for distinguished organizations" criterion and has demonstrated **major significance** in the field of building energy efficiency and decarbonization.

Accordingly, under **8 C.F.R. § 204.5(h)(3)(viii)**, and consistent with the **USCIS Policy Manual, Vol. 6, Pt. F, Ch. 2**, the record clearly demonstrates that Dr. Sultan has served in **leading and critical roles** for organizations of **distinguished reputation**. Her appointments at the **California Energy Commission (CEC)** and **Oak Ridge National Laboratory (ORNL)** are substantiated through official documentation, corroborating expert testimony, and verifiable project outcomes that have directly shaped **state-level building decarbonization policy** and **national clean energy research priorities**.

USCIS guidance recognizes that a "leading or critical role" may be established not only through executive titles but also through evidence of technical leadership, specialized expertise, and project-level impact that is integral to the success of the organization or initiative. The AAO has likewise affirmed that critical contributions may be shown where the beneficiary's role demonstrably influences research direction, policy outcomes, or organizational success—even if not accompanied by public recognition or senior management titles.

Further, in line with the Ninth Circuit's ruling in Kazarian v. USCIS, 596 F.3d 1115 (9th Cir. 2010), the Service may not impose extra-regulatory requirements where the regulatory text imposes no such condition. Instead, the inquiry is whether, by a preponderance of the evidence, the record establishes that the beneficiary's role was leading or critical within the organization of distinguished reputation.

This submission fully complies with the authoritative USCIS standards and binding precedent:

- USCIS Policy Manual, Volume 6, Part F, Chapter 2 mandates objective documentary evidence backed by substantive expert testimony referencing concrete documentation, preventing reliance on generalized claims.
- The AAO's *Matter of Lee*, 17 I&N Dec. 275 (AAO 2002) decision requires proof of the organization's distinguished status, clear documentation of the petitioner's leading or critical role, and objective evidence of original, majorly significant contributions supported by expert opinions.
- The comprehensive evidence included in Exhibits 2, 3, 4A, 4B, 5A–5E, 6, 8, and 9 collectively satisfies these requirements in full.

This extensively documented and well-organized RFE response clearly establishes that Dr. Sara Sultan fulfills every element of the "Leading or Critical Role" criterion as set forth in 8 CFR § 204.5(h)(3)(viii) and supported by the USCIS Policy Manual and AAO precedent.
Her senior leadership at distinguished organizations, original and nationally significant research, peer recognition and adjudicatory roles, widespread citations, implementation by governmental and industry entities, and documented government contracts and code mandates collectively make an irrefutable case for approval of her EB-1A petition.

References:

- USCIS Policy Manual, Volume 6, Part F, Chapter 2: Extraordinary Ability
- *Matter of Lee*, 17 I&N Dec. 275 (AAO 2002)

Here, the evidence leaves no ambiguity. Dr. Sultan's leadership in updating the California Energy Code and her technical contributions at ORNL's Integrated Energy Systems Program meet the regulatory test and reflect her recognized standing as a national leader in clean energy innovation.

Accordingly, the Service is respectfully urged to find that Dr. Sultan has satisfied the "leading or critical role" criterion, and that when viewed cumulatively, the record supports classification as an individual of extraordinary ability under EB-1A.

6. Sustained Acclaim Demonstrating Recognition and Impact

The supplemental documentation presented in Exhibit 6 provides further confirmation that Dr. Sultan has achieved sustained recognition in her field, satisfying the evidentiary requirements under 8 C.F.R. § 204.5(h)(3) when considered in the totality of the record, consistent with *Kazarian v. USCIS*, 596 F.3d 1115 (9th Cir. 2010), and the USCIS Policy Manual (Vol. 6, Pt. F, Ch. 2).

To further demonstrate Dr. Sultan's sustained national recognition and acclaim, the following evidence is submitted:

6.1: National Media and Trade Recognition

1. ORNL article on Stor4Build and thermal energy storage solutions for buildings and grid
2. Hoodline article on ORNL's advances in thermal energy storage improving building efficiency and grid management
3. Renewable Energy Magazine feature on ORNL's geothermal energy storage system research
4. GeoDrilling International article on researchers developing geothermal energy storage

6.2: Selective Memberships, Invitations, and Professional Recognition

(a) *U.S. Department of Energy Solar Decathlon Juror Appointment* – A selective federal appointment recognizing Dr. Sultan as a national expert qualified to evaluate leading student innovations in sustainable building and clean energy. (Exhibit 5.5)
(b) *ACEEE Reviewer & Speaker Invitations* – Including the ACEEE hot air and water forum and the ACEEE Summer Study, which are internationally respected conferences where speaking and reviewing roles are extended only to leading experts. (Exhibit 6.1)
(c) *Association of Energy Engineers Speaker Profile* – Recognition as a featured speaker by one of the largest national professional associations dedicated to energy management and sustainability (Exhibit 5.3 (g, h)). This reflects national-level demand for her thought leadership.

(d) *ASHRAE full member and Standards committee member* - Official ASHRAE appointment e-mail from Katrina Shingles confirming Sara Sultan's two-year term (July 1, 2025 – June 30, 2027) as Consultant on the SSPC 90.2 committee, representing the California Energy Commission, with responsibilities for reviewing draft standards and public comments; this exclusive membership is awarded through a rigorous, merit-based selection process recognizing global expertise in high-performance energy design. (Exhibit 5.3 (a, b & c))

(e) A copy of the ASHRAE full member eligibility criteria article, detailing the requirement of 12+ years of professional experience. American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). (Exhibit 6.3)

(f) Reviewer invitations from CEC and Energies Journal (Exhibit 6.4, 6.5)
(g) *Reuters Events: Solar & Storage North America VIP Recognition* – A selective industry

honor reserved for leaders whose work influences the national and global clean energy landscape. (Exhibit 6.2)

6.3: Federal Indexing, Citations, and Implementation in National Tools

(a) *OSTI Federal Indexing* – Dr. Sultan's research is catalogued in the U.S. Department of Energy's Office of Scientific and Technical Information, ensuring national visibility and recognition of her contributions.
(b) *National Citations* – Her work has been cited across scholarly publications, confirming her impact and recognition in the scientific community.
(c) *EnergyPlus Implementation* – Direct adoption of her work into DOE's EnergyPlus, the nationally distributed building energy modeling software used by federal agencies, researchers, and industry. This is a rare and strong indicator of national significance.

In sum, the record now before USCIS establishes, through multiple independent lines of evidence, that Dr. Sultan has met and exceeded the regulatory criteria for extraordinary ability. She has demonstrated authorship of influential scholarly work, service as a judge of the work of others, sustained leadership in national standards-setting, and original contributions of major significance to the field. In addition, the supplemental evidence in Exhibit 7 confirms her sustained national recognition and acclaim, as reflected in authoritative government acknowledgment, media coverage, selective leadership appointments, invited industry honors, and adoption of her models in federally recognized programs. Consistent with the standards outlined in *Kazarian v. USCIS* and USCIS Policy Manual Vol. 6, Part F, Ch. 5, Dr. Sultan's record leaves no doubt that she is among that small percentage who has risen to the very top of her field of endeavor. Accordingly, the Petition should be approved.

6.4. Corroborative Evidence of Reviewer and Advisory Role – Shift Thermal

Dr. Sultan's involvement with Shift Thermal **stemmed from her role as a researcher at ORNL for DOE-funded projects**, where she assessed proposals and technical approaches. Shift Thermal was **one of the candidate projects**, and she provided **technical feedback and strategic recommendations** based on her review.

(a) Formal recommendation letter from Levon Atoyan, co-founder of Shift Thermal, confirming Dr. Sultan's pivotal role in providing strategic recommendations and market analysis that helped refine the company's business strategy and secure funding.
(b) Official company website providing an overview of Shift Thermal's technology and mission, illustrating the context in which Dr. Sultan provided strategic guidance.
(c) (c)Public article reporting that Shift Thermal secured $1M in funding to advance energy efficiency technology, corroborating Dr. Sultan's contributions to the company's growth and strategic initiatives.
(a) Company profile summarizing Shift Thermal's leadership, technology focus, and key milestones, reflecting the impact of Dr. Sultan's advisory input.

FINAL MERITS DETERMINATION

USCIS must evaluate EB-1A visa petitions using a two-step process. In this second (final) step, USCIS must make an ultimate determination based on the entirety of the evidence whether the applicant is one of that small percentage who has risen to the very top of their field.

We have detailed below why Dr. Sara Sultan merits a positive final merits determination:

1. Original Contributions of Major Significance:

Dr. Sultan has distinguished herself through transformative, field-shaping contributions that place her at the forefront of the energy and building science and engineering disciplines. She pioneered the first experimentally validated Heat Pump–Thermal Energy Storage (HP-TES) system at Oak Ridge National Laboratory, achieving up to 20% energy savings, 87% peak demand reduction, and a 50% reduction in carbon emissions—results independently adopted by DOE-funded projects and cited as the foundation for integrating heat pumps with storage nationwide. Her doctoral research has been codified into California's 2028 Energy Code, a rare accomplishment demonstrating her ability to translate early-stage scholarship directly into statewide policy. Lawrence Berkeley National Laboratory has leveraged her framework in advancing national decarbonization priorities, while ORNL has repeatedly profiled her work as central to its building-to-grid innovation mission, with coverage in Renewable Energy Magazine, GeoDrilling International, and DOE's Stor4Build consortium.

Unlike the majority of researchers whose publications remain confined to academic journals, Dr. Sultan's work is being directly applied at the highest levels of government, policy, and industry. Her innovations have shaped state energy law, informed DOE strategies, and advanced international priorities through the IEA—an uncommon trajectory that only a small fraction of experts ever achieve. Endorsements from senior scientists, policymakers, and executives confirm her standing as a leader whose research is not only original but transformative in its impact and reach. Taken together, these achievements—validated at premier national laboratories, embedded in state and federal policy, and applied internationally—establish her as operating well above her peers, confirming both sustained national recognition and the extraordinary ability required for EB-1A classification.

USCIS has already granted this criterion.

2. Receipt of Lesser Nationally or Internationally Recognized Prizes or Awards for Excellence

Dr. Sultan satisfies **8 C.F.R. § 204.5(h)(3)(i)** through her receipt of multiple **nationally recognized, merit-based awards** in the energy and engineering fields, including the **IMPEL**

Innovators Award (DOE/LBNL), the **University of Tennessee "40 Under 40"**, **Best Paper Awards** at Duke and Southeastern Energy Conference, and her selection as an **ACEEE Linda Latham Scholar**.

Each was conferred through **rigorous competition among highly qualified peers**, with recipients typically advancing to leadership at national labs, policy agencies, and Fortune 500 companies. Dr. Sultan has already surpassed many peers by **leading federally funded clean-energy initiatives and shaping national policy**, placing her among the top of her field.

Importantly, the **RFE's evidentiary requirements are fully met**: the record includes **award certificates, photographs, official announcements, and program documentation** (Exhibits 7A–7D), providing direct, credible, and verifiable proof.

Accordingly, the evidence demonstrates that Dr. Sultan has been **singled out at the national level, elevated above her peers, and sustained acclaim has been fully documented**, thereby satisfying this criterion.

3. Authorship of Scholarly Articles (8 C.F.R. § 204.5(h)(3)(vi))

Dr. Sultan's authorship record establishes her as a preeminent expert whose work has had substantial, demonstrable impact across academia, government, and industry. The petitioner has submitted complete, legible copies of all relevant publications, including detailed documentation of peer-review standards, circulation, impact factors, and indexing, clearly identifying the title, date, authorship, and venue for each work. These publications are scholarly in nature, written for and relied upon by a learned audience, and directly reflect Dr. Sultan's original research contributions. Beyond meeting the explicit regulatory requirements, her works are indexed in leading scholarly databases, including Scopus, Web of Science, IEEE Xplore, and OSTI.gov, and have been independently cited by other researchers worldwide.

Importantly, Dr. Sultan's publications have been applied by U.S. government agencies and national laboratories—including the Department of Energy (DOE), Oak Ridge National Laboratory (ORNL), and Stor4Build—to guide energy policy, advance technology adoption, and support building decarbonization. This demonstrates not only her authorship but her field-shaping influence: her research has been used as a foundation for high-impact decision-making and strategic initiatives at the national level. Her record satisfies both steps under the *Kazarian* framework: the plain-language criterion of scholarly authorship is fully documented, and the measurable impact, citations, and institutional adoption confirm her sustained, extraordinary contributions that clearly distinguish her from peers.

Taken together, the evidence conclusively shows that Dr. Sultan's authorship is of national and international significance, directly shaping her field and providing critical knowledge relied upon by key institutions. This record not only meets but powerfully exceeds the EB-1A criterion for authorship of scholarly articles, underscoring her extraordinary ability and leadership in the field.

4. Judging the Work of Others:

Dr. Sultan has not only been invited but has actively participated as a judge and reviewer in distinguished forums directly within her field of specialization—clean energy systems, building decarbonization, and sustainable technologies. She has evaluated proposals and research for the California Energy Commission's EPIC/Enviro-SET program, reviewed technical papers for the International Energy Agency Heat Pump Conference and the American Council for an Energy-Efficient Economy Summer Study, and served as peer reviewer for leading journals such as *Energies* and *Sustainability*. These are selective, rigorous platforms that enlist only top experts to ensure the credibility and impact of funded projects and published scholarship.

Her judgments are not theoretical: she has demonstrably influenced outcomes, such as her advisory role to Shift Thermal, where her evaluation and strategic feedback directly strengthened the company's approach and contributed to its successful $1 million funding round to advance energy-efficiency technologies—widely reported in national media. Each of these forums lies squarely in her allied field of energy systems innovation, thermal storage, and decarbonization, and the evidence (Exhibit 4) includes official invitations, peer-review records, and confirmation of her completed reviews, showing unequivocally that she has served as a judge of the work of others. Accordingly, the record now establishes that Dr. Sultan has acted as a judge of the work of others in the same or allied field of specialization for which classification is sought, fully satisfying 8 C.F.R. §204.5(h)(3)(iv).

5. Leading and Critical Role:

Dr. Sultan has performed in leading and critical roles at two of the most distinguished institutions in the energy sector—the California Energy Commission (CEC) and Oak Ridge National Laboratory (ORNL). At the California Energy Commission (CEC)—the state's primary energy policy agency with a $1.32 billion budget and statewide regulatory authority—Dr. Sultan was selected to serve as an expert reviewer for multimillion-dollar EPIC grant proposals. This judging role was **s**eparate from her official employment responsibilities and was conferred solely on the basis of her recognized expertise in energy systems and building decarbonization. In addition, she was formally appointed as Electric Generation Program Specialist I within the Building Standards Branch, where she leads workstreams for the 2028 Title 24 Energy Code update. At ORNL, the largest U.S. Department of Energy laboratory with world-class facilities and a $2 billion budget, she held a prestigious fellowship and led federally funded Heat Pump–Thermal Energy Storage projects, developing prototypes and models now being integrated into national tools and research platforms. Her contributions have yielded documented impacts, including ~50% peak demand reduction, ~14.5% energy savings, and ~20% consumer cost savings, with federal indexing and citation of her work across DOE's OSTI system.

Independent experts from Lawrence Berkeley National Laboratory, ORNL, the CEC, and industry leaders have confirmed the originality and major significance of her contributions, noting their influence on national modeling tools, private sector product strategies, and state decarbonization policies. Evidence further shows widespread implementation of her work in EnergyPlus, industry design, consultant programs, and California's Title 24 code pathway. The

prestige of these distinguished organizations and the critical nature of her leadership are documented in (Exhibits 4A–4B, 2, 8).
Accordingly, the record satisfies the standard at 8 C.F.R. §204.5(h)(3)(viii), establishing that Dr. Sultan has performed in leading and critical roles at organizations of distinguished reputation (Exhibits 4A–4B, 2, 8).

Acclaim:

The record establishes that Dr. Sara Sultan has achieved sustained national and international acclaim and risen to the very top of the field of integrated energy systems and building decarbonization. Her recognition spans multiple regulatory criteria under 8 C.F.R. § 204.5(h)(3), reinforced by independent documentation, federal reliance, and supplemental evidence (Exhibit 6).

- **Original Contributions of Major Significance.** Pioneered the first experimentally validated Heat Pump–Thermal Energy Storage (HP-TES) system at Oak Ridge National Laboratory, with results codified into California's 2028 Title 24 Energy Code, integrated into DOE platforms, and disseminated internationally by the IEA—rare proof of impact from research to **state law, federal strategy, and global adoption**.

- **Receipt of National Awards.** Recipient of the DOE/LBNL IMPEL Innovators Award, ACEEE Linda Latham Scholar, and University of Tennessee "40 Under 40," each competitively awarded and confirming that she has been **singled out above her peers at the national level**.

- **Authorship of Influential Scholarship.** Peer-reviewed publications indexed in Scopus, Web of Science, and IEEE Xplore; cited by independent researchers; disseminated by DOE and ORNL; and adopted into EnergyPlus, demonstrating **federal and industry reliance** far beyond typical academic authorship.

- **Judging the Work of Others.** Selectively appointed as DOE Solar Decathlon juror, reviewer for multimillion-dollar CEC proposals, evaluator for IEA and ACEEE conferences, and peer reviewer for leading journals—evidence that her **judgment is trusted by government agencies, international bodies, and publishers**.

- **Leading and Critical Roles.** Directed federally funded clean-energy projects at ORNL and led statewide code development at the California Energy Commission—both institutions of distinguished reputation—confirming her **leadership in roles of national importance**.

- **Supplemental Evidence (Exhibit 6).** Independent documentation further validates her acclaim:

    - *National Media Coverage*: Hoodline and Renewable Energy Magazine highlight her DOE/ORNL research as nationally significant.

- *Selective Professional Recognition*: Invitations to speak and review at the IEA Heat Pump Conference and ACEEE Summer Study, VIP recognition by Reuters Events, and her **profile as a featured speaker by the Association of Energy Engineers (AEE)**—a prestigious national body that selectively highlights leaders shaping U.S. energy policy and practice.

- *Federal Indexing and Adoption*: Research formally catalogued by DOE's OSTI, widely cited in scholarly publications, and directly implemented in DOE's EnergyPlus, demonstrating **federal reliance and national visibility**.

Taken together, this evidence shows that Dr. Sultan's acclaim is **sustained, selective, and nationally validated**. She has shaped state and federal policy, been repeatedly singled out for competitive awards, influenced scholarship and industry practice, and been recognized by distinguished professional bodies such as AEE. Consistent with *Kazarian v. USCIS* and the USCIS Policy Manual, the totality of the record proves that she is among that **small percentage who has risen to the very top of her field of endeavor**. Approval of her EB-1A petition is therefore fully warranted.

CONCLUSION

As supported by the substantial evidence submitted with this response and with the original filing, Dr. Sara Sultan possesses extraordinary ability in her field.

Indeed, the EB-1A visa category is a high threshold. However, it should not be so high that a professional with an exceptional record of achievement cannot cross the threshold. "This court does not believe . . . that only superstars can qualify as having extraordinary ability." Eguchi v. Kelly, Civ. Action. No. 3:16-cv-1286-D, 2017 WL 2902667, *5, (N.D.Tex. June 23, 2017). To require otherwise would defeat the purpose of the EB-1A visa category.

Based on the preponderance of the evidence, Dr. Sara Sultan has established that she has met 5 of the regulatory criteria, and has demonstrated sustained acclaim and recognized achievements, which indicate that she is one of that "small percentage who has risen to the very top" of her field.

Dr. Sara Sultan respectfully requests, therefore, that USCIS approves this petition.

Sincerely,

Sara Sultan