

## CEI Graduate Fellowship Scoring Rubric for Applicants

CEI is seeking applications that demonstrate outstanding potential for research, leadership, and service. Application materials (short responses, CV, and letters of reference) will be reviewed and result in a score from 5 (highest) to 1 (lowest) across 5 scoring categories:

- (1) research potential
- (2) leadership and service in STEM;
- (3) relevance to CEI's state-mandated core research mission areas of solar energy, renewable energy storage, or smart grid systems;
- (4) the potential for the fellowship to broadly yield transformative experiences; and,
- (5) the potential for this research to enable a student to make a meaningful pivot to apply AI, machine learning, or high-throughput discovery expertise and methodology to clean energy projects.

### Eligibility:

(1) Current NSF, NDSEG, DOE, etc. fellowship holders are NOT eligible to receive CEI funding concurrent with fellowship funding, *BUT they may be designated as honorary CEI Fellows, OR they may choose to pause/reserve their fellowship for a year if permitted by the sponsor. Students should indicate if they are asking for "honorary" fellow status, or if they intend to pause their fellowship to receive a CEI fellowship if awarded. **Past fellows who have not yet received CEI funding are eligible and may apply.***

(2) Students must have begun their graduate study between June 1, 2023, and September 31, 2025, and should not be planning to graduate before Sept 31, 2027. Incoming 1<sup>st</sup>-year students and Masters students are not eligible.

## Scoring Rubric

### Research Potential

- 5 Exceptional:** The application demonstrates a strong and thoughtful pivot into AI/ML or data-centric methods. The student shows clear, documented preparation and a realistic, well-scoped plan to integrate AI/ML into clean-energy research. While early outputs are not required, the project is technically sound, well-mentored, and clearly distinguishes the applicant from the typical UW graduate cohort in interdisciplinary readiness and intent through one or more specific activities and/or achievements to date.
- 4 Very Good:** The application presents a strong and credible transition into AI/ML or data-centric approaches motivated by clean-energy challenges. The student shows evidence of active skill acquisition and a realistic plan for integration, supported by mentorship, collaboration, or documented self-study or coursework beyond their degree program.

- 3 **Above Average:** The application reflects a thoughtful early-stage pivot into AI/ML or data-driven discovery. The motivation is clear, but the execution plan, tools, or preparation may still be under formulation. The student shows evidence of engaging with new tools or frameworks and demonstrates awareness of what must be learned, even if the pathway is not yet fully defined.
- 2 **Average:** The application indicates interest or exploratory intent toward AI/ML or data-science approaches, but the pivot is loosely defined or primarily aspirational. The clean-energy motivation or the role of AI/ML is not yet well integrated into the research plan, and preparation or mentorship structures are limited.
- 1 **Below Average:** The application does not substantively demonstrate a pivot into AI/ML or data-driven discovery. AI/ML appears incidental, superficial, or disconnected from the clean-energy research goals, with limited evidence of preparation, learning plans, or feasibility, or the student is already working on a well-established and ongoing project in this area.

## Leadership and Service

- 5 **Exceptional:** This application indicates a high level of participation and leadership *while at UW* in service and extracurricular activities, either with direct application to STEM fields or evidence of potential to apply them to STEM. This application clearly shows how experiences motivate and prepare the applicant to achieve CEI goals of engaging and benefitting the broader public in STEM endeavors through activities such as outreach, technology translation and commercialization, and/or service for the public good.
- 4 **Very Good:** This application is significantly strong when compared to the UW graduate cohort, has demonstrated leadership achievements at UW that motivate and prepare the applicant to participate in outreach, technology translation and commercialization, and/or service for the public good.
- 3 **Above Average:** This application is above average compared to the UW graduate cohort in leadership and service but may not yet have strong evidence of being exceptional in leadership achievements.
- 2 **Average:** This application appears to be average compared to the UW graduate cohort but has evidence of promise for future success in leadership and service achievements.
- 1 **Below Average:** This application appears to be below average compared to the UW graduate cohort (i.e., CV or reference letters) specifically raise concerns.

## Relevance to CEI Research Mission

Note: The application should make explicit the connections between your research and clean energy. There may be some research that does not directly align with the current CEI mission or research focus but could represent emerging fields or areas related to clean energy.

- 5 **Exceptional:** This application presents research with clear and compelling implications for solar energy, renewable energy storage, energy systems, or advanced energy materials. This may include foundational or applied work—ranging from algorithm development to new semiconductors or physical processes—with plausible future applications to energy. Highly rated proposals may also address energy policy, governance, or community-level

impacts, including how energy technologies affect access, affordability, reliability, or the distribution of benefits and burdens across different populations, in alignment with CEI's major research thrusts.

- 4 Very Good:** This application presents research that is relevant to CEI's mission, though the connection may be less direct. The work demonstrates a reasonable link to clean energy technologies, systems, or policy considerations, including potential implications for energy access, system performance, or decision-making frameworks.
- 3 Above Average:** This application presents research that is related to CEI's areas of interest, but questions remain regarding how the program may ultimately contribute to advances in solar energy, energy storage, energy systems, or the societal dimensions of energy transitions. The connection to clean energy outcomes may require further clarification or development.
- 2 Average:** This application presents research relevant to energy in a general sense, but not clearly aligned with CEI's mission. Projects in this category do not explicitly articulate how the proposed work connects to energy technologies, systems, policy, or community-level impacts (e.g., studies of materials structures, algorithms, or measurement techniques without a specific articulated link to energy applications).
- 1 Below Average:** This application presents research that does not demonstrate relevance to CEI. The proposal fails to articulate a meaningful connection to energy materials, energy systems, energy devices, or the policy and community dimensions of energy infrastructure and decision-making.

## Transformative Potential

This category reflects the potential for the applicant's participation to provide a transformative experience. Transformative is interpreted for the individual, their research team, and the CEI community writ large. For example, proposing research projects or extended activities that move the applicant's research group or career development *in an entirely new direction*, or that bring *entirely new directions* of scholarship into CEI are scored highly in this category. Being the first member from a given department or faculty lab could also be transformative in both dimensions. Inclusion of new scholarships, new collaborations between labs and institutions (including National Labs), new ideas, and new viewpoints would likely be more transformative than research areas that already have a large presence in CEI.

- 5 Exceptional:** Funding this individual's fellowship would likely be transformative for the individual, for their research group, and for CEI in multiple dimensions.
- 4 Very Good:** Funding this individual's fellowship would likely be transformative for at least two of the following: the individual, for their research group, and for CEI in multiple dimensions.
- 3 Above Average:** Funding this individual's fellowship would likely be transformative for at least one of the following: the individual, for their research group, and for CEI in multiple dimensions.
- 2 Average:** Funding this individual's fellowship would likely have limited potential to be transformative for either the individual, their research group, or CEI.
- 1 Below Average:** Funding this individual's fellowship is not seen to be transformative for either the individual, their research group, or CEI.

## Pivot to AI/ML/Data Science Methods

- 5 Exceptional:** Funding this individual's fellowship would likely be transformative with respect to a pivot for the individual, for their research group, and for CEI in multiple dimensions.
- 4 Very Good:** Funding this individual's fellowship would likely be transformative with respect to a pivot for at least two of the following: the individual, for their research group, and for CEI in multiple dimensions.
- 3 Above Average:** Funding this individual's fellowship would likely be transformative with respect to a pivot for at least one of the following: the individual, for their research group, and for CEI in multiple dimensions.
- 2 Average:** Funding this individual's fellowship would likely have limited potential to be transformative with respect to a pivot for either the individual, their research group, or CEI.
- 1 Below Average:** Funding this individual's fellowship is not seen to be transformative with respect to a pivot for either the individual, their research group, or CEI.