

**Opportunity Title:** EPA Fellowship on Energy System Modeling using GLIMPSE

**Opportunity Reference Code:** EPA-ORD-CEMM-AESMD-2022-05

**Organization** U.S. Environmental Protection Agency (EPA)

**Reference Code** EPA-ORD-CEMM-AESMD-2022-05

**How to Apply** *Connect with ORISE...on the GO!* Download the new ORISE GO mobile app in the Apple or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

A complete application consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. All transcripts must be in English or include an official English translation. Click [here](#) for detailed information about acceptable transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations. Click [here](#) for detailed information about recommendations.

All documents must be in English or include an official English translation.

**Application Deadline** 4/10/2023 3:00:00 PM Eastern Time Zone

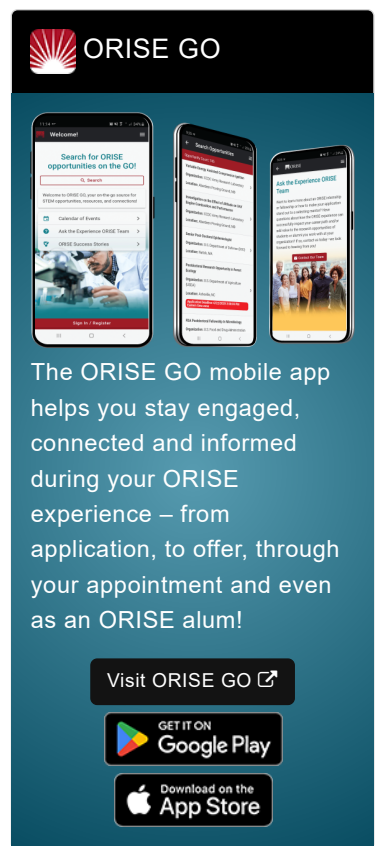
**Description** \*Applications will be reviewed on a rolling basis and this opportunity could close before the application deadline. Click [here](#) for information about the selection process.

**EPA Office/Lab and Location:** A research opportunity is available at the Environmental Protection Agency (EPA), Office of Research and Development (ORD), Center for Environmental Measurement and Modeling (CEMM), Atmospheric and Environmental Systems Modeling Division (AESMD) located in Research Triangle Park, North Carolina.

ORD performs science in support of the Agency's regulatory mission. conducts research to advance EPA's ability to characterize atmospheric and environmental processes that impact the transport, transformation, and fate of environmental contaminants in the air and the multimedia linkages of air pollutant emissions in support of the Clean Air Act and the Clean Water Act.


**Research Project:** GLIMPSE is a decision support tool being developed at the U.S. EPA to assist the EPA, states, and others with long-term environmental and energy planning. GLIMPSE is an acronym for the "GCAM Long-term Interactive Multi-Pollutant Scenario Evaluator", where GCAM is the "Global Change Analysis Model". GCAM is a human-Earth systems model, developed by Pacific Northwest National Laboratory, that simulates the co-evolution of the economy, energy system, land use, and climate systems, including how this co-evolution is shaped by policy and other external factors. GLIMPSE acts as a graphical user interface for GCAM.


Using GLIMPSE, decisionmakers and analysts at the national, regional, and state levels can examine potential policies, investigate the impacts of emerging technologies, develop cost-effective strategies for meeting air pollutant and greenhouse gas (GHG) mitigation targets, and explore the




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tradeoffs at the nexus of energy, water, and land use.

The research participant will use GCAM in GLIMPSE to identify strategies for simultaneously reducing greenhouse gases (GHGs) and air pollutants. The research participant will: (i) engage with stakeholders, including within the EPA's regulatory offices and in state environmental agencies, (ii) collect and synthesize data, (iii) modify model inputs, (iv) design experiments, (v) run the GCAM model, (vi) analyze model outputs, (vii) present results, and (viii) document research results in reports or manuscripts. The research participant may also conduct activities such as reviewing and improving the GLIMPSE documentation and training materials, as well as assisting with training others to use GLIMPSE.

Relevant web links:

GLIMPSE: <https://www.epa.gov/air-research/glimpse-computational-framework-supporting-state-level-environmental-and-energy>

GCAM: <https://github.com/JGCRI/gcam-core>

**Learning Objectives:** As a result of this training, the participant will learn how integrated assessment models work and be able to apply one such model, GCAM, to support decision-making. The participant will also learn data analysis skills and improve their ability to communicate the results to a wide range of audiences, including government, research, and the public.

**Mentor(s):** The mentor(s) for this opportunity is Dan Loughlin ([loughlin.dan@epa.gov](mailto:loughlin.dan@epa.gov)). If you have questions about the nature of the research please contact the mentor(s).

**Anticipated Appointment Start Date:** **May 15, 2023.** All start dates are flexible and vary depending on numerous factors. Click [here](#) for detailed information about start dates.

**Appointment Length:** The appointment will initially be for one year but shorter appointments may be considered. The appointment may be renewed upon EPA recommendation and subject to availability of funding.

**Level of Participation:** The appointment is full-time.

**Participant Stipend:** The participant will receive a monthly stipend commensurate with educational level and experience. Click [here](#) for detailed information about full-time stipends.

**EPA Security Clearance:** Completion of a successful background investigation by the Office of Personnel Management (OPM) is required for an applicant to be on-boarded at EPA.

**ORISE Information:** This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and EPA. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained

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through ORISE.

ORISE offers all ORISE EPA graduate students and Postdocs a free 5 year membership to the National Postdoctoral Association (NPA).

The successful applicant(s) will be required to comply with Environmental, Safety and Health (ES&H) requirements of the hosting facility, including but not limited to, COVID-19 requirements (e.g. facial covering, physical distancing, testing, vaccination).





**Questions:** Please see the [FAQ section](#) of our website. After reading, if you have additional questions about the application process please email [ORISE.EPA.ORD@orau.org](mailto:ORISE.EPA.ORD@orau.org) and include the reference code for this opportunity.

**Qualifications** By the start of the appointment, the qualified candidate should have received a master's or doctoral degree in one of the relevant disciplines indicated below (e.g. Environmental Management, Environmental Economics, or Environmental Policy). Degree must have been received within five years of the appointment start date.

Preferred skills:

- (i) experience running integrated assessment models for purposes such as the following: projecting greenhouse gas or air pollutant emissions, assessing the energy and emissions implications of new technologies or policies, or developing strategies to meet emission reduction goals cost-effectively.
- (ii) data analysis tools, including commercial spreadsheet software

**Eligibility Requirements**

- **Citizenship:** U.S. Citizen Only
- **Degree:** Currently pursuing a Master's Degree or Doctoral Degree to be received by 5/31/2023 11:59:00 PM.
- **Discipline(s):**
  - **Engineering** ([2](#) )
  - **Environmental and Marine Sciences** ([2](#) )
  - **Mathematics and Statistics** ([2](#) )
  - **Social and Behavioral Sciences** ([3](#) )