

The 109th GIST Seminar

***A discussion on Critical Minerals
-Considerations for Energy Transitions-***

Speaker:

Dr. Michelle Foss



**Fellow in Energy, Minerals and Materials
Center for Energy Studies, Baker Institute for Public Policy
Rice University, Houston, Tx, U.S.A.**

- ◆ **Date:** 18:00-19:30, April 28, 2023 (Doors open at 17:30)
- ◆ **Venue:** 5th Floor, Lecture Room M, GRIPS
7-22-1 Roppongi, Minato-ku, Tokyo
<http://www.grips.ac.jp/en/about/access/>
- ◆ **Organizer:** GRIPS Innovation, Science and Technology Policy Program (GIST)
- ◆ **Language:** English
- ◆ **Outline**
Clean energy transitions will significantly increase the critical minerals demand.
She will speak about the role of critical minerals and the challenges associated with energy transitions along with consequences such as import dependency and the cluster of environment, social and governance (ESG) considerations.

In her view, with regard to security and ESG, we need to look broadly across the energy landscape to ensure that “new energies” do not compromise gains achieved around legacy systems.

In her speech, she will point out important aspects including;

- Minerals and materials “criticality” is in the eyes of the beholder. We know that demand will increase for alternative energy applications and that material requirements will be higher.
- Energy choices should include security, for our nation, energy system and economy. How we define security and the many complex interactions can influence attention to risks, uncertainties, mitigation and solutions.
- There is growing attention to ESG risks specific to mining and minerals processing. Mining and minerals processing are, and can be, conducted safely and soundly with best practice and enforcement.

She also made her speech at G20 meeting and gave her recommendations such as to develop a uniform mineral criticality index, to promote transparency of critical minerals, to foster technical collaborations, to share best practices for extraction and recovery of critical minerals (an example is the Energy Resource Governance Initiative).

Since Japan will host G7 meeting soon, we expect she will give her recommendation to us.

After her presentations, Prof. Hisanori Nei of GRIPS will moderate Q&A sessions

◆ **Speaker's Short bio**

Michelle Michot Foss, Ph.D., is the fellow in energy, minerals and materials at Rice University's Baker Institute, helping to build capacity on non-fuel minerals supply chains. She has more than 40 years of experience in senior positions in energy (oil, gas/LNG, electric power) and environmental research, consulting and investment banking, with early career exposure to mining and mined land reclamation.

Michot Foss served in several positions at The University of Texas at Austin and the University of Houston. She was the chief energy economist and head of the Bureau of Economic Geology's Center for Energy Economics at UTA. She was a UH Shell Interdisciplinary Scholar with grants on North American gas and power integration and national oil companies. Her career research highlights include projects for local, national and international government bodies, including the Texas Comptroller, U.S. Energy Information Administration, U.S. Department of Energy, World Bank, Japan's External Trade Organization and other institutions.

She led a university-based LNG industry consortium for North America.

She is past president of the IAEE, International Association for Energy Economics; past president of the USAEE; and was named USAEE Senior Fellow. Michot Foss received her B.S. from the University of Louisiana at Lafayette, an M.S. from Colorado School of Mines and a Ph.D. from UH.

◆ **Program**

18:00-18:05 Introduction by Prof. Hisanori Nei (Moderator)

18:05-19:05 Presentation by Dr. Michelle Foss

19:05-19:30 Open discussion and close

◆ **Warnings**

This is an in person seminar. Please refrain from coming to the venue when you are sick, regardless of whether or not you have symptoms that suggest a new type of coronavirus infection. The event is subject to cancelation due to the situation of Covid-19.

◆ **Registration**

Please register at this registration form (<https://forms.gle/XojtgyqHgiQA4EEX7/>) by 17:00, Apr.26, Wed. Please note that due to the capacity of the venue, the number of participants will be limited to 70 on a first-come, first-served basis.

If you cannot open the form, please send email to GIST Secretariat, gist-ml@grips.ac.jp. Registration email must include: 1) your name, 2) institution, 3) position, and 4) e-mail address.