

Greenhouse Gas Mitigation Modelling Tools Webinar Series 2023

Session 6: New Tools in the Region: The Basics of PyPSA

28 June 2023, Wednesday, 10:00 AM - 11:30 AM AST

Background:

In the sixth and final session of the series, we will present an overview of the Python for Power System Analysis (PyPSA) toolbox, which is one of the newer modelling tools available for use in the region.

PyPSA provides an open-source Python environment, for state-of-the art energy system modelling. There are various PyPSA packages which can perform tasks such as calculating renewable energy potentials to creating complex electricity networks and cost-optimizing the pathway of a whole energy system. All packages are built in a modular sense so that they may be used independently from each other but interact easily. PyPSA is currently coordinated and maintained by the Department of Digital Transformation and Energy Systems at the Technical University of Berlin.

This session is brought to you by the Modelling & Projections Programme of the Caribbean Cooperative Measurement, Reporting and Verification (MRV) Hub, in collaboration with the Technical University of Berlin.

Objectives:

This session will present an overview of the PyPSA modelling toolbox and its usage. Through this session, participants will gain a greater appreciation for the toolbox, and deepen their understanding of possible uses.

The session will focus on:

- An overview of the PyPSA modelling toolbox
- A deeper look into the data and other requirements for operation
- A demonstrative look at its capabilities

Target audience:

- Decision-makers in climate change divisions
- Officers focusing on climate change mitigation
- GHG inventory coordinators and developers
- Academics involved in climate change mitigation planning topics and other interested parties.
- Planners involved in the energy sector with interest in understanding climate change actions and their impacts.

All Participants are welcomed, but the major focus will be on the Caribbean region.

Registration:

Registration closes on the day of the webinar, and can be done using the link below:

[REGISTER HERE](#)

Structure and content of the virtual webinars:

Each session features three main stages which feature the following:

- **Pre-webinar preparation**
 - o Upon registration, participants will receive the webinar agenda and Zoom link to access the session.
 - o More information on the toolbox including a link to access it and other relevant material be obtained through the following link:
<https://pypsa.org/#about>
- **Webinar (90 minutes)**
 - o Presentation on the capabilities and functions, key features, data requirements, and demonstration of the usage of PyPSA
 - o Question and answer segment where participants are allowed to engage experts on the presentation content and make suggestions for future webinar content.
- **Follow-up stage**
 - o Participants are asked to provide feedback on the webinar content, approach, and execution using a feedback form which will be sent via email. Furthermore, participants will be encouraged to discuss follow-up questions or further topics of interest by communicating directly with the MRV Hub Secretariat via email.

The virtual seminar will be conducted via ZOOM Meetings.

Tentative webinar agenda:

5 min	Introduction by Benise Joseph - Opening, housekeeping, agenda overview, presenter introduction
30 min	Overview of PyPSA by Dr. Tom Brown, Professor at Technical University of Berlin - Tool capabilities & functions, key features and data requirements
25 min	Demonstration of PyPSA by Dr. Tom Brown, Professor at Technical University of Berlin
20 min	Q & A session with the participants - Zoom poll
5 min	Closing