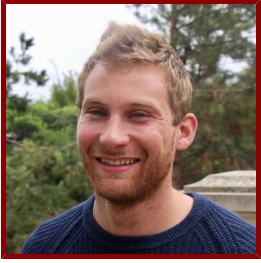


Stanford



Jacques de Chalendar

Adjunct Professor, Department of Energy Resources Engineering - Energy Resources Engineering

Bio

BIO

Research

I build state-of-the-art computational tools for energy and carbon management problems. Two currently active projects include

- 1) Building tools to track emissions in the US power system. See energy.stanford.edu/gridemissions
- 2) Experimenting with building energy systems on the Stanford campus in the context of the COOLER Research Program. COOLER's goal is to make large, modern buildings more energy-efficient, low carbon and resilient using data, optimization, and control.

See <https://jdechalendar.su.domains/> for more.

Teaching

ENERGY 104/204: This course explores the global transition to a sustainable global energy system. We will formulate and program simple models for future energy system pathways. We will explore the drivers of global energy demand and carbon emissions, as well as the technologies that can help us meet this demand sustainably. We will consider constraints on the large-scale deployment of technology and difficulties of a transition at large scales and over long time periods. Assignments will focus on building models of key aspects of the energy transition, including global, regional and sectoral energy demand and emissions as well as economics of change. Prerequisites: students should be comfortable with calculus and linear algebra (e.g. Math 20, Math 51) and be familiar with computer programming (e.g. CS106A, CS106B). We will use the Python programming language to build our models.