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Cover letter for the submission of the paper:

**Modeling Europe's role in the global LNG market 2040:
balancing decarbonization goals, energy security, and geopolitical tensions**

Dear Professor Lund,

I am delighted to submit our latest research to Energy. The novelties presented in this paper are aimed at the scientific community, looking for a nuanced perspective on the modeling of Europe's role in the global liquefied natural gas (LNG) market, considering decarbonization goals, aspects of energy and supply security as well as geopolitical tensions.

Our manuscript comes at a critical time where the energy supply situation in Europe has substantially changed because of the invasion of Ukraine by Russia in February 2022. In response to Russian aggression and the resulting war in Ukraine, Europe has imposed sanctions on Russia that have also led to the collapse of Russian piped gas imports to Europe and, consequently, a rethinking of natural gas policies in Europe. One main consequence is that LNG is (back) on Europe's agenda.

In our analysis of the global LNG trade anticipated for 2040, particular emphasis is directed toward the European LNG supply dynamics. The investigation delves into the complexities of supply costs associated with LNG imports. Expanding upon previous investigations that have addressed the impact of geopolitical tensions on energy systems, our research concentrates explicitly on the LNG trade as a focal point within energy system analyses. The accompanying open-sourced code of our analysis is an expression of our commitment to transparency and open science.

We, Anne Neumann and I, are confident that the submitted research would enrich your journal and make a valuable contribution to the state of the art in modeling LNG markets and trade in a decarbonized energy system. I look forward to your response and thank you in advance for your consideration.

Yours sincerely,

Sebastian Zwickl-Bernhard