

Supplementary Material

Global-local heat demand development for the energy transition time frame up to 2050

Dominik Keiner ^{1,*}, Larissa D.S.N.S. Barbosa ², Dmitrii Bogdanov ¹, Arman Aghahosseini ¹, Ashish Gulagi ¹, Solomon Oyewo ¹, Michael Child ¹, Siavash Khalili ¹ and Christian Breyer ^{1,*}

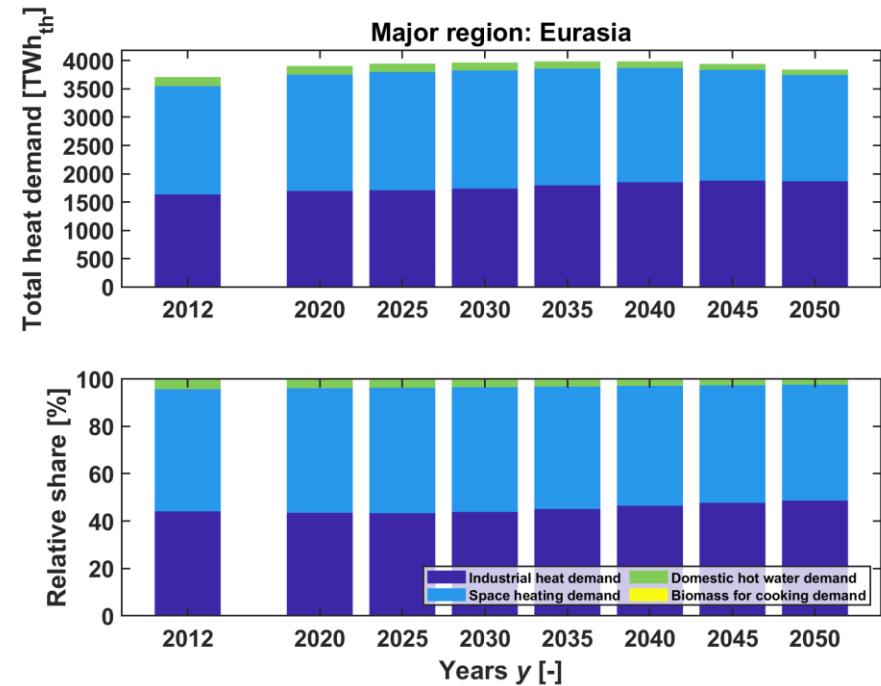
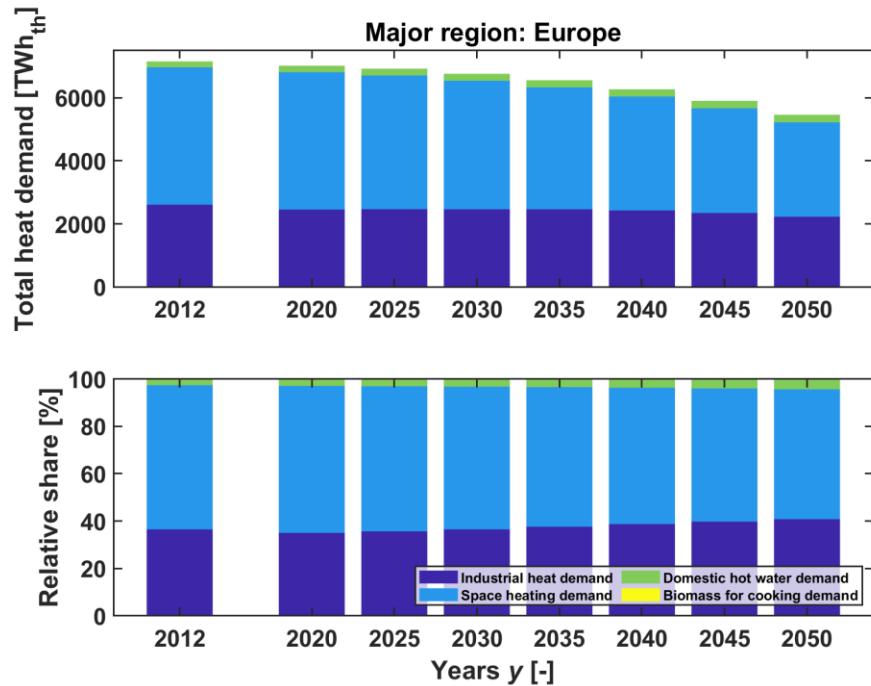
¹ School of Energy Systems, LUT University, Yliopistonkatu 34, 53850 Lappeenranta, Finland

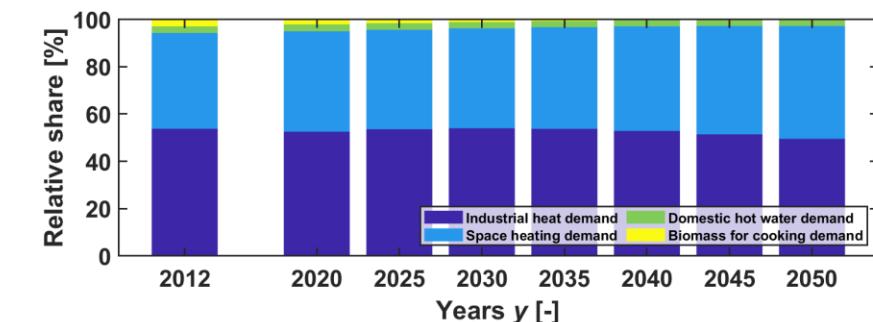
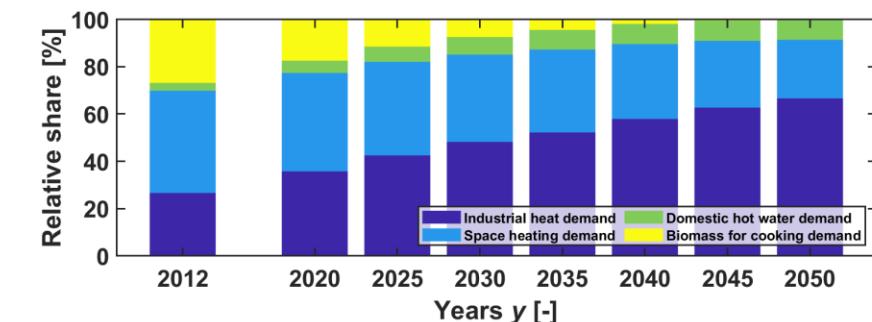
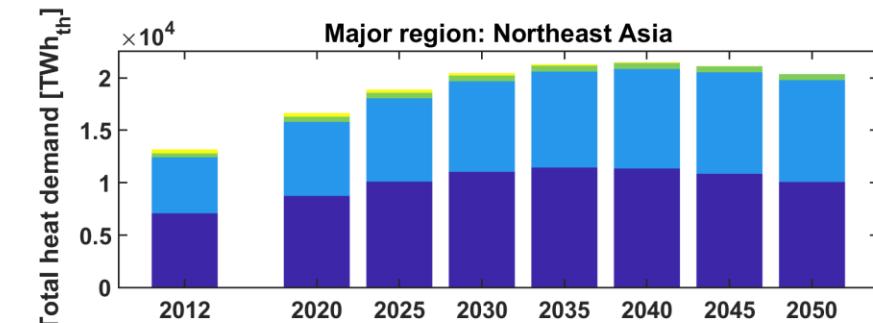
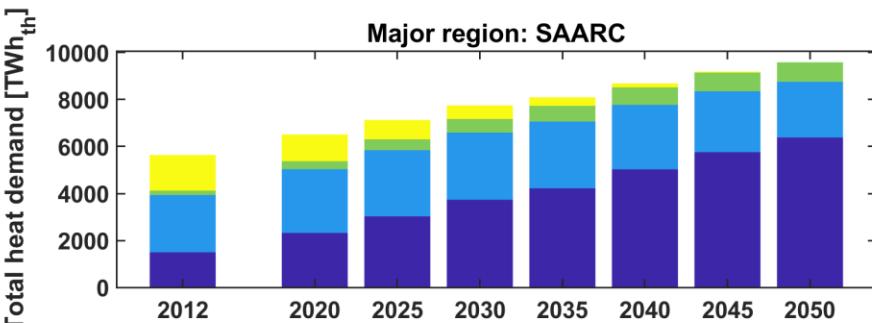
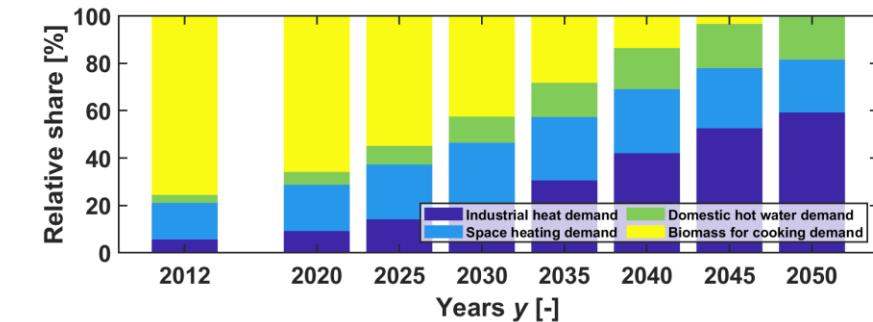
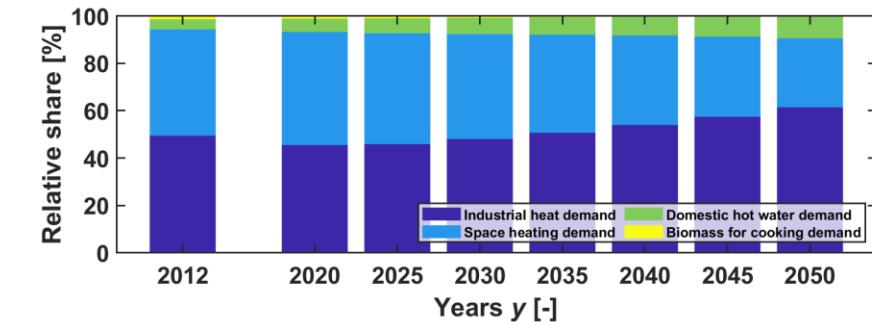
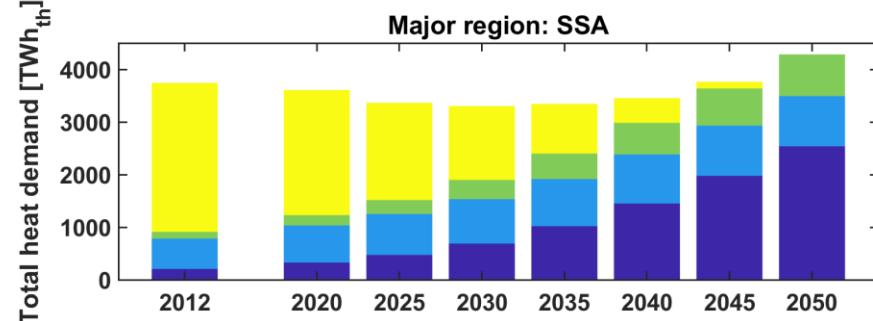
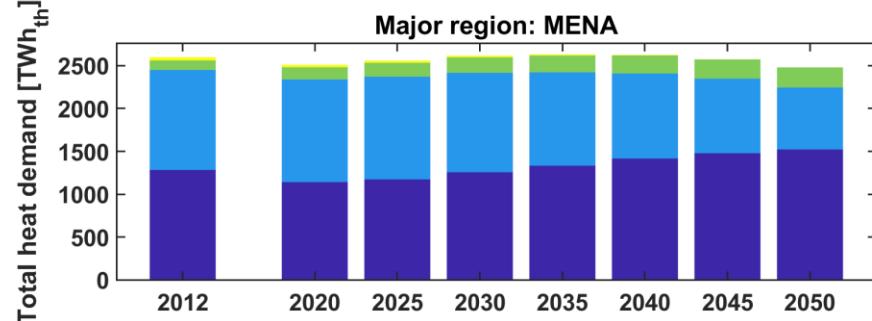
² Luiz De Queiroz College of Agriculture, University of São Paulo, Piracicaba, São Paulo, Brazil

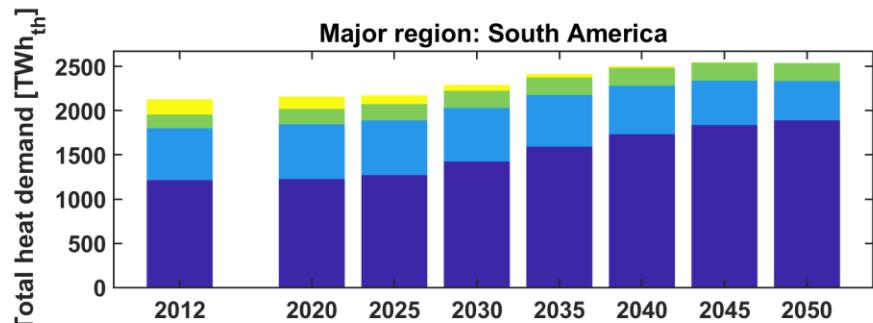
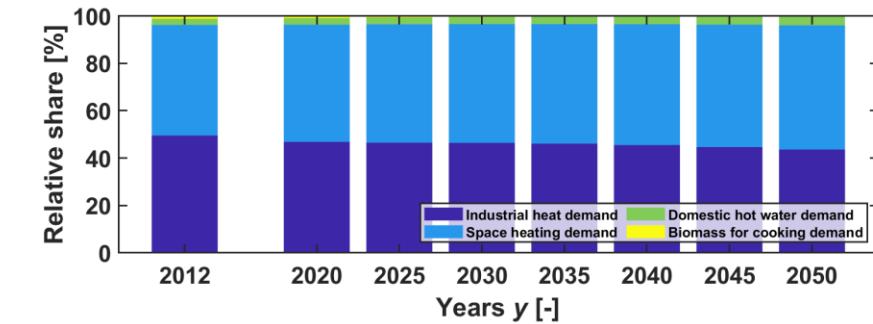
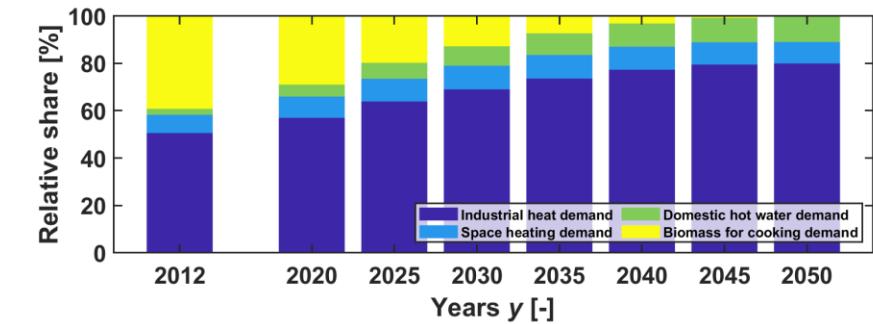
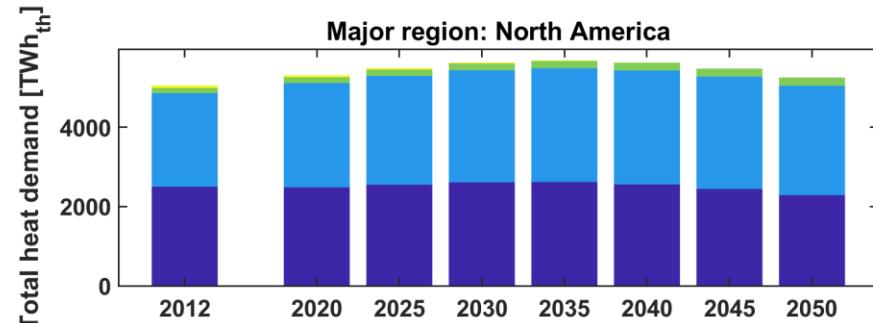
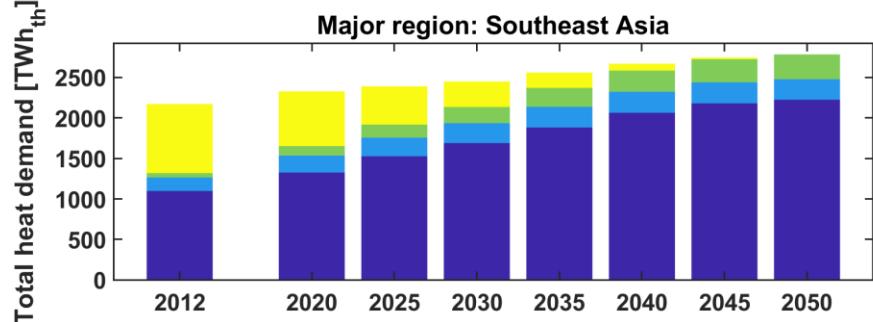
* Correspondence: dominik.keiner@lut.fi (D.K.); christian.breyer@lut.fi (C.B.)

Part 3: Total cumulative heat composition for 9 major regions and 145 meso regions

Part 3.1. Total cumulative heat composition for 9 major regions of the LUT model.







Part 3.2. Total cumulative heat composition for 145 meso regions of the LUT model.

