Abstract: Our research group has for years studied water and air resources associated with energy extraction and use. In the talk I will present data on methane leakage, focusing upstream on wellpads and abandoned wells and downstream along natural gas distribution systems. With colleagues, we have published the first publicly available maps of natural gas leaks across urban pipelines and surveyed thousands of wellpads to understand the frequency of emissions and the factors predicting them. Our data are designed to help improve the environmental footprint of the energy system.