Human activities have brought both ozone depletion and global warming potentials to such a high level that decelerating the rate of global temperature rise seems impossible lately by the options provided by the First-Law of Thermodynamics. This speech will underline the importance of exergy in achieving the so-called decarbonization and decoupling of sustainable growth and CO₂ emissions. Several applications sampled from the every-day engineering practices in the HVAC and energy sector will be shown that exergy is not only a game changer but at the same time a game maker towards overcoming the global emergency of warming.