

Cogeneration Unit for Small Stove

Authors : Michal Spilacek, Marian Brazdil, Otakar Stelcl, Jiri Pospisil

Abstract : This paper shows an experimental testing of a small unit for combustion of solid fuels, such as charcoal and wood logs, that can provide electricity. One of the concepts is that the unit does not require a qualified personnel for its operation. The unit itself is composed of two main parts. The design requires a heat producing stove and an electricity producing thermoelectric generator. After the construction the unit was tested and the results shows that the emission release is within the legislative requirements for emission production and environmental protection. That qualifies such unit for indoor application.

Keywords : micro-cogeneration, thermoelectric generator, biomass combustion, wood stove

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020