

Abstract - Cooperative Research and Development Agreement between Sotacarbo and National Energy Technology Laboratory

The objective of this CRADA between NETL and Sotacarbo is to develop mutual collaboration in the areas of: CFD Modeling for optimization of coal/biomass gasification processes, CO₂ Separation by Membranes, CO₂-to-Liquids, & CO₂ Sequestration. The CFD modeling and optimization of coal/biomass gasification processes project will bring together NETL's expertise in the area of computational multiphase flows with Sotacarbo's expertise in the area of design and operation of coal and biomass gasifiers. The outcome of this collaboration should be validated coal/biomass CFD models, which can assist in design and scale-up studies of gasifiers. There are several gasification units at Sotacarbo's Research Center which can be used for gasification model development and validation using NETL's MFIX Suite of multiphase flow CFD software. The other remaining technical topic outcomes will be determined at a later time as a result of further discussions.