

ABSTRACT

LOW EMISSION POWER GENERATION AND HYDROCARBON RECOVERY SYSTEMS AND METHODS

Integrated systems and methods for low emission power generation in a hydrocarbon recovery processes are provided. One system includes a control fuel stream, an oxygen stream, a combustion unit, a first power generate on system and a second power generation system. The combustion unit is configured to receive and combust the control fuel stream and the oxygen stream to produce a gaseous combustion stream having carbon dioxide and water. The first power generation system is configured to generate at least one unit of power and a carbon dioxide stream. The second power generation system is configured to receive thermal energy from the gaseous combustion stream and convert the thermal energy into at least one unit of power.

Fig. 1A