A method for operating a blast furnace for producing of pig iron, comprising the steps of (a) heating a stream of hydrocarbon gas and a stream of steam in a first heater to provide a heated stream of hydrocarbon gas and steam, (b) feeding and partially reforming the heated stream of hydrocarbon gas and steam in a pre-reformer to provide a stream of partially reformed syngas, (c) heating a first stream of blast furnace gas from the blast furnace and the stream of partially reformed syngas in a second heater, before or after their mixing together, to provide a heated carbon feed stream, (d) reforming the heated carbon feed stream in a secondary reformer to provide a second stream of syngas, and (e) feeding said second stream of syngas to the shaft of the blast furnace.