

RIFT's Iron Fuel Boiler Fact sheet

95%

Energy efficiency

The Iron Fuel Boiler system ensures optimal utilization of energy, and boasts an energy efficiency of up to 95%.

10 KgCO2/ MWh_{th}

CO₂ emissions

Iron fuel combustion is carbon free. The pilot safety flame results in 10 kgCO₂/MWh_{th.}

0.52 t/MWh_{th}

Iron fuel usage

A boiler consumes 0.52 tonnes of iron fuel per MWh of thermic energy.



NO, emissions

Iron fuel has the lowest NO_x emissions of any fuel.



43 kWh/ MWh_{th}

0.5

M€/MWh_{th}

Electricity usage

To run the boiler system 43 kWh is needed to produce a MWh of thermic energy.

System investment

The system investment is €0.5 million per MW_{th}.

140

Iron fuel price

RIFT's iron fuel production delivers iron fuel for a price of 140 €/t.

2.5 %/Inv

0&M

The O&M costs are 2.5% of investment.

RIFT's Iron Fuel Production Fact sheet

86%

Energy efficiency

The Iron Fuel Production system has a hydrogen to iron fuel energy efficiency of 86%.

O KgCO₂/t

CO₂ emissions

No carbon emissions are emitted during iron fuel production.



Hydrogen usage

The Iron Fuel production system consumes just 46.1 kg of hydrogen to produce a ton of iron fuel.



NO_x emissions

No nitrogen oxide emissions are emited during production of the iron fuel.



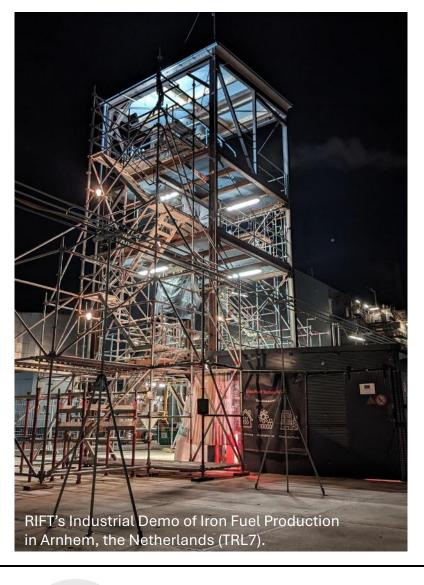
Electricity usage

To run the production system just 282 kWh of electricity is used to produce a ton of iron fuel.



CO₂ reduction in chain

Based on low-carbon H₂ cf. EU definitions and the EU Innovation Fund GHG methodology, incl. transport



2.7 M€/t*h

System investment

The system costs 60M€ for 186kt/y (22.33 t/h) of iron fuel which is approximately 2.7M€/t*h.

140 €/t

Iron fuel price

RIFT's iron fuel production delivers iron fuel for a price of 140 €/t.

3 %/Invest

O&M

The O&M costs are 3% of investment.