

# **Renewables in High-Temperature Industrial Processes**

Among the various energy applications, hightemperature industrial processes will be among the hardest to decarbonise. Renewable fuels and/or concentrated solar-thermal energy have the potential to address this, if existing processes can be adapted.

#### Competitive advantage

- Deep modelling and experimental capability in high-temperature, multiphase, chemically reacting flows
- Expertise in technoeconomic modelling

#### Impact

• Enables integration of renewables into high-temperature industrial processes from early stage concept development, through design and scale-up, and techno-economic assessment

#### Successful outcomes

• Work to integrate solar-thermal energy into the process for alumina production

### **Capabilities and facilities**

- Experimental solar furnace ~ 700 suns
- Comprehensive, in-house modelling capability for turbulent, multiphase, chemically reacting flows

#### Our partners

- Alcoa
- Australian Renewable Energy Agency

## **More Information**

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