

Water for a Green H₂ Future

Rivash Panday

25 October



Future Sasol

- Multiple viable pathways to net zero (<https://sasolcapitalmarketsday.com>).
 - 2030 GHG reduction target increased to 30%
 - 2050 Clear ambition to achieve net zero*
- Transitioning to a more sustainable feedstock
- Advantaged and differentiated FT Technology
 - Flexibility to shift to blue/green H₂
 - Carbon agnostic: potential for unlimited sustainable feedstock
- To produce 10 Mtpa of green hydrogen (RSA only needs 3 to 7 Mtpa by 2050), the water used will be 33% of today's water demand for our coal fired power sector.

Water plays a key enabling role in our ambition to advance sustainable fuels and chemicals; both in supporting our existing assets and new greenfield opportunities

Water requirements to achieve our Green H₂ ambitions

- Water – a critical feedstock used to generate steam, produce hydrogen and cool processes
- Sasol has adopted a stewardship approach informed by the six focus areas of the UN Global Compact CEO Water Mandate in response to mitigating water risks:
 - Direct Operations
 - Watershed and supply chain
 - Collective action
 - Community engagement
 - Public policy
 - Transparency



CEO Water Mandate

Water to achieve our Green H₂ ambitions

- Water supply for new developments need to be carefully considered against the available supply options.
- It is premature to speculate what the water footprint of any green hydrogen project would be, whether for an existing brownfield site or new development;
 - water is location specific.
- We are well placed to investigate the options.
 - For new export orientated developments likely to be located at the coast
 - application of desalinated sea water remains an option.
 - For inland developments partnerships may be required to realise savings in a catchment
 - for example introducing water conservation measures - to free up water for new growth projects.
- Alternative sources of supply as opposed to surface water may also have to be considered provided it makes business sense.

Key Water Risks to consider in Developing a Green H₂ Future

Access and security

- *very high assurance user reliant on critical infrastructure to supply water to operations. Deteriorating feed water quality results in greater demand.*

Regulatory

- *complex licensing regime in an uncertain regulatory environment*

Financial

- *increasing water charges; capital intensive treatment solutions; deteriorating water quality results in increasing treatment costs*

Environmental

- *Brine Management, effluent discharges, spills, seepage into water courses.*

Climate Change

- *Drought conditions in Southern Africa*

Reputational

- *As the largest private sector water user we receive growing scrutiny from interested stakeholders.*

Conclusions and Recommendation

- Water is critical to achieving Sasol's Green H₂ aspirations.
- Expect water use to receive greater Stakeholder scrutiny as our Green H₂ ambitions are advanced
- Water challenges are often not in Sasol's operational control
 - critical to work in partnership to advance sustainable water practices in the interest of all users
- Adopting a corporate water stewardship approach to mitigate against water risks is recommended in developing Green H₂ facilities in water scarce regions.

we are committed to taking a water stewardship approach to find the best solutions for the catchments within which we will operate

