



Green Hydrogen Case Study

25 % Savings in Operating Costs
and Amortisation within 2 Years –
Efficient Water Treatment with KR

Water treatment systems with concentrate staged reverse osmosis from Herco:
Reduce costs, increase efficiency.

Feed water costs account for over 50 % of the operating costs of hydrogen production. Herco's concentrate staged reverse osmosis (KR) system significantly reduces water consumption: 24 % less feed water and 74 % less waste water result in savings of up to 51 000 € per year – with an amortisation period of less than two years.



Green hydrogen:

Half of the operating costs are related to feed water



Focus on OPEX

The exemplary calculation in Figure 1 for a conventional system with an electrolyser capacity of 20 MW clearly shows that the annual costs for feed water account for more than half of the total operating costs. In addition, around 16 % of OPEX is accounted for the disposal of waste water.

This offers you considerable potential for savings: water treatment systems with concentrate staged reverse osmosis (KR) from Herco have a clear advantage (Figure 2). Although power consumption increases slightly due to the technical design, feed water consumption (24 %) and wastewater volume (74 %) are significantly reduced.

RO system

- Distribution of cost shares without KR per year

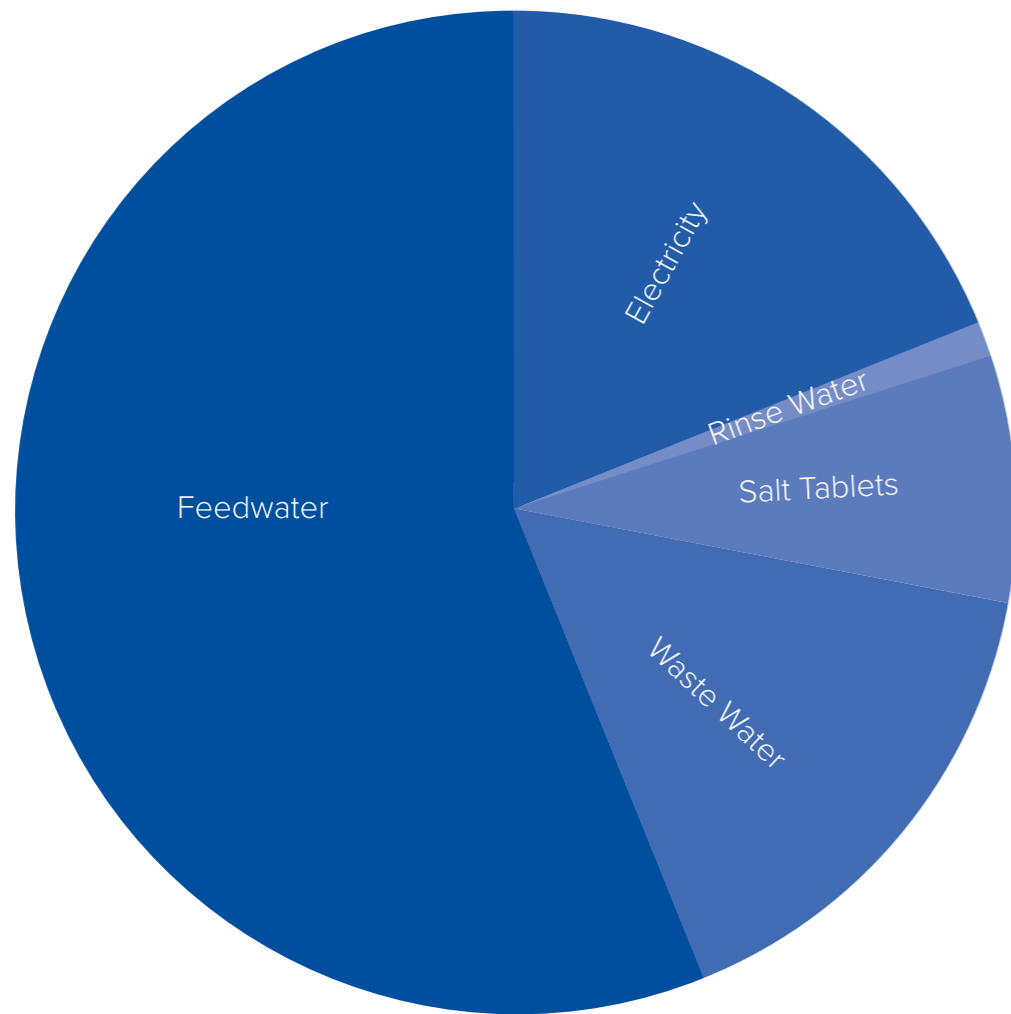


Figure 1

Exemplary calculation of savings: In concrete terms, this corresponds to savings of up to 51 000 € per year for a water treatment system with an electrolysis capacity of 20 MW. Thus, process engineering adjustments can achieve an amortisation period of less than two years.

Optimised RO system

+ Savings potential with KR per year

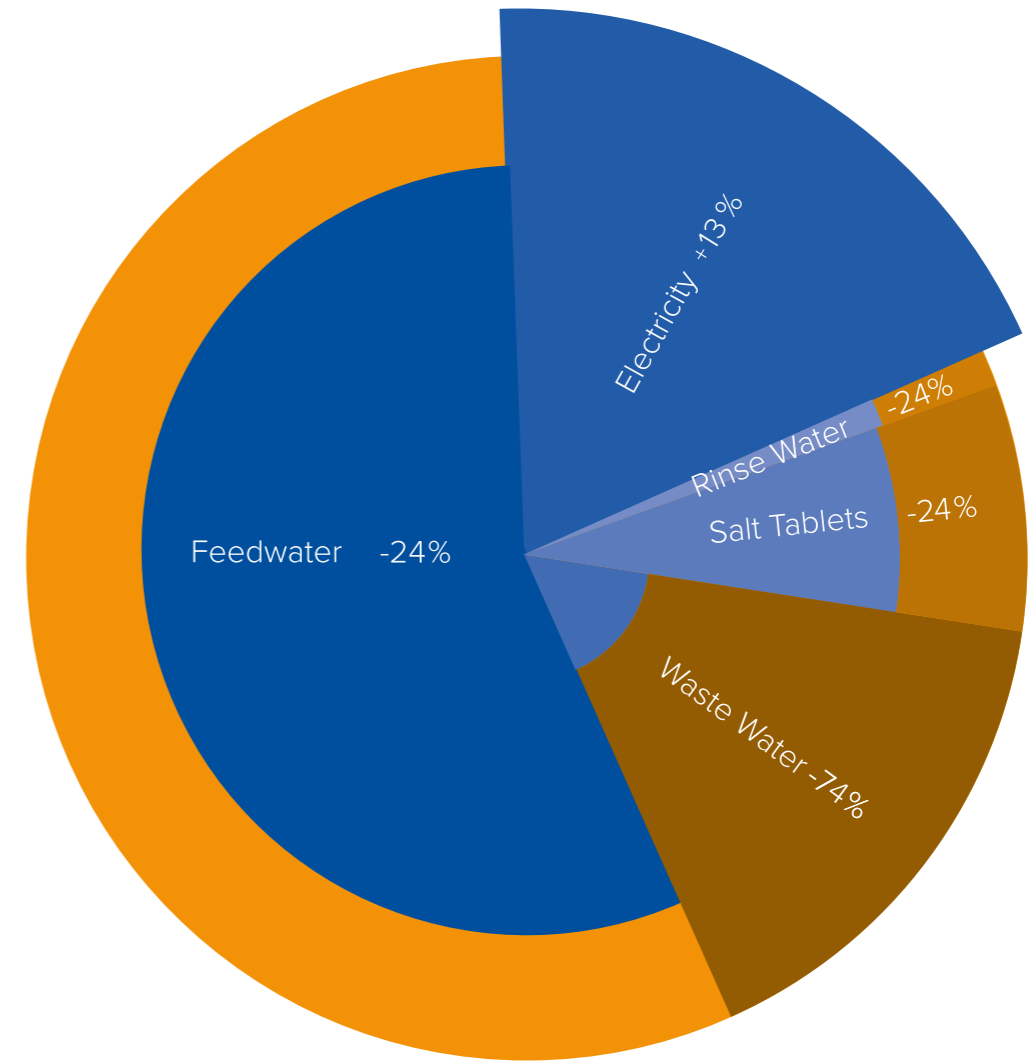


Figure 2

> Overall, the potential savings in your annual operating costs through the use of RO systems with integrated concentrate stage equates to up to 25 %.

Your advantages at a glance



Our water treatment systems with concentrate recirculation offer significant savings potential while increasing efficiency.



Contact our Business Developer for Hydrogen for comprehensive OPEX consulting.

Cesar Pinto

Business Development Manager Hydrogen

cesar.pinto@hercowater.com

+49 (0) 7141 7095 134 & +49 176 17895030

hercowater.com/h2



Herco Wassertechnik GmbH, Planckstraße 26, 71691 Freiberg am Neckar
T +49 7141 7095-0 info@hercowater.com
www.hercowater.com