

Reykjavík Energy

High temperature geothermal resources: Production, enthalpy, reinjection and drawdown 2024



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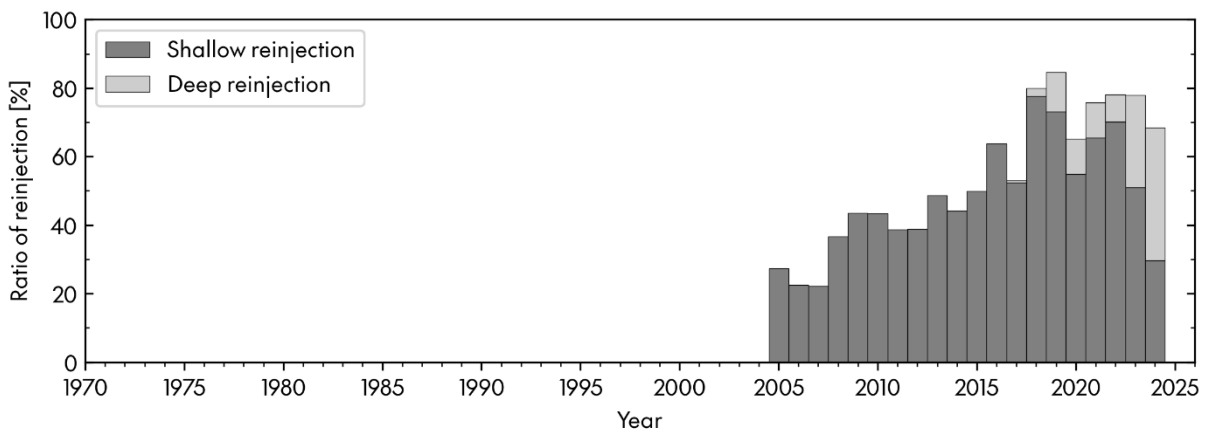
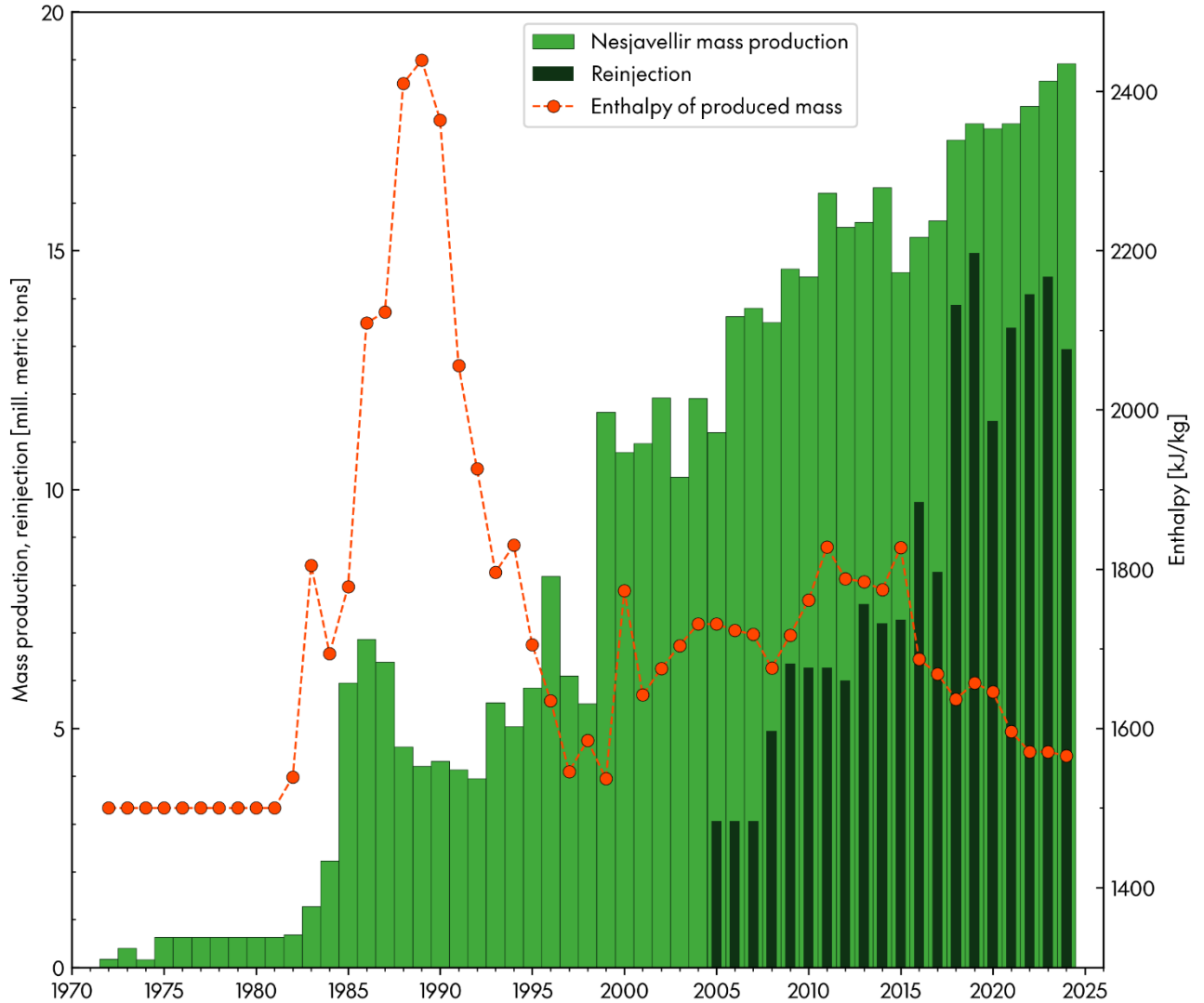
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Cover photo: Íris Eva Einarsdóttir

Nesjavellir power plant

Production at Nesjavellir, enthalpy and reinjection

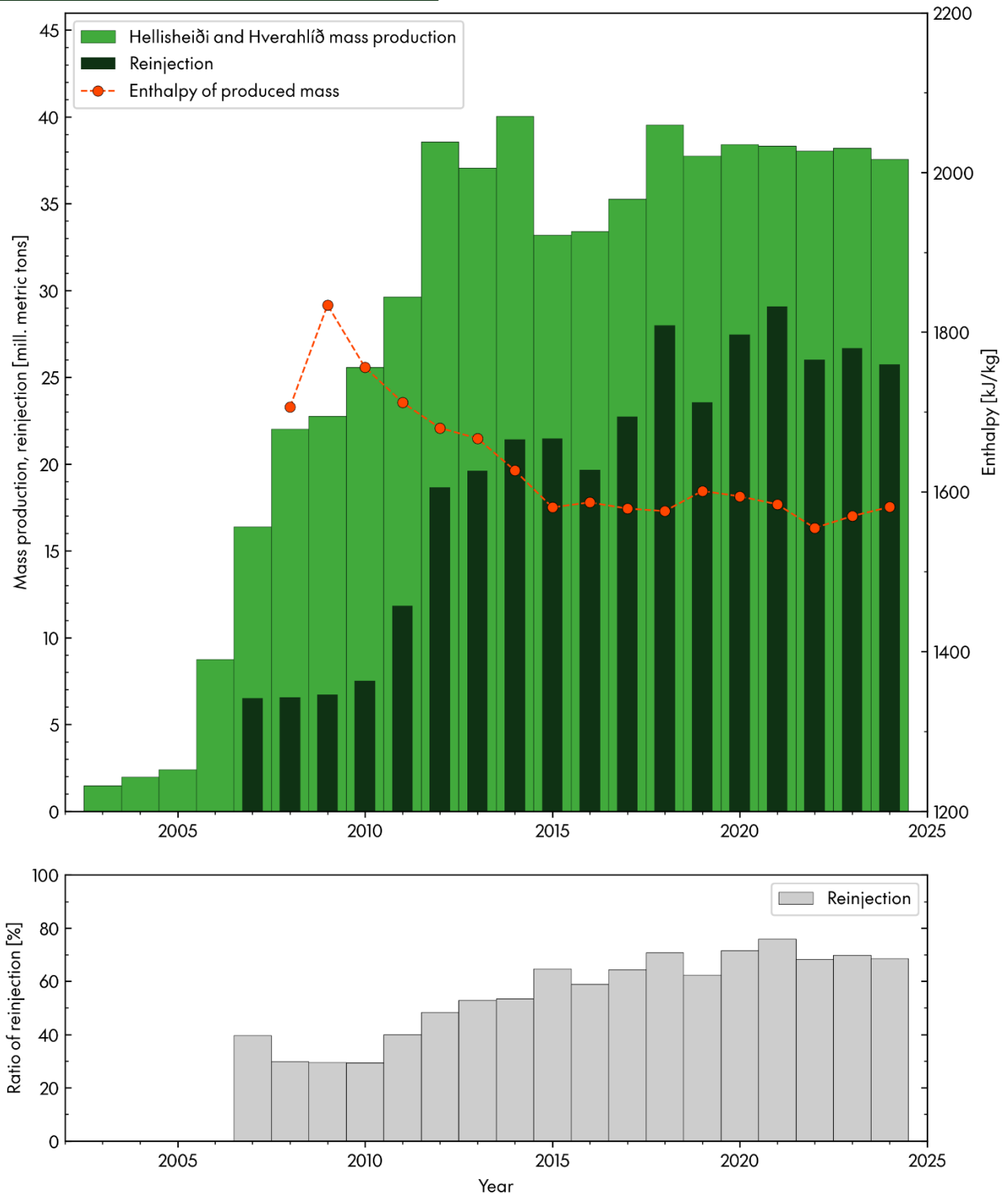
Production at Nesjavellir (million tons per annum) from 1972 to 2024, weighted average enthalpy (kJ/kg) and reinjection of geothermal water and heated groundwater (million tons per annum). Green columns show the volume of produced geothermal fluid, dark green columns show the volume of reinjection and the orange line the enthalpy of the geothermal fluid (kJ/kg) from 1972 to 2024 since the heat is a yardstick for the energy content of the geothermal fluid. In 2024 approximately 68% of the produced fluid was reinjected below upper groundwater layers, thereof around 38% of produced fluid was reinjected in the geothermal reservoir.



Hellisheidi power plant

Production at Hellisheidi and Hverahlid, enthalpy and reinjection

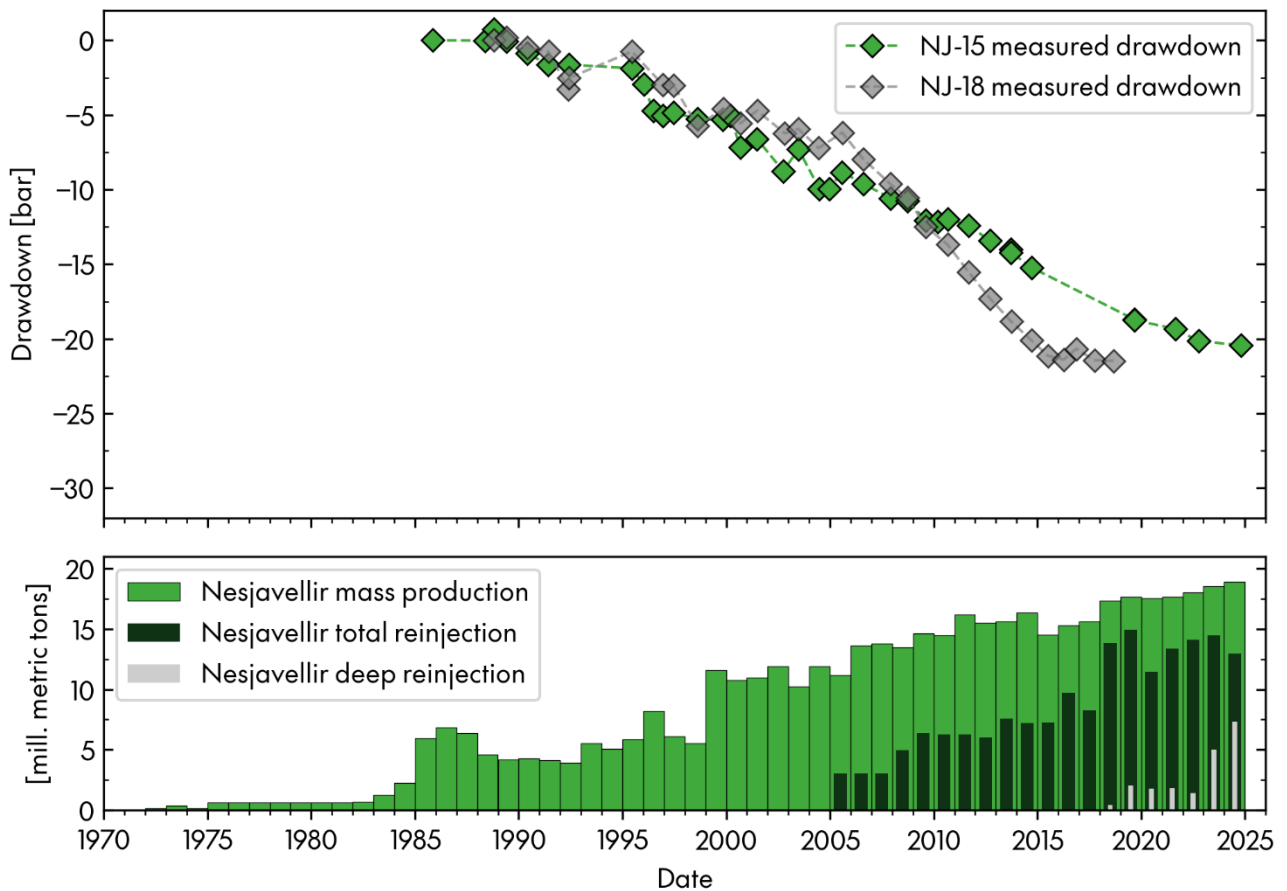
Production at Hellisheidi and Hverahlid (million tons per annum) from 2007 to 2024, enthalpy (kJ/kg) and reinjection (million tons per annum). Green columns show total production, dark green columns show reinjection and the orange line shows the average enthalpy of the geothermal fluid (kJ/kg) from 2008 to 2024 and it is a yardstick for the energy content of the geothermal fluid. In 2024 approximately 69% of the produced fluid was reinjected.



Drawdown in Nesjavellir, Hellisheidi and Hverahlid

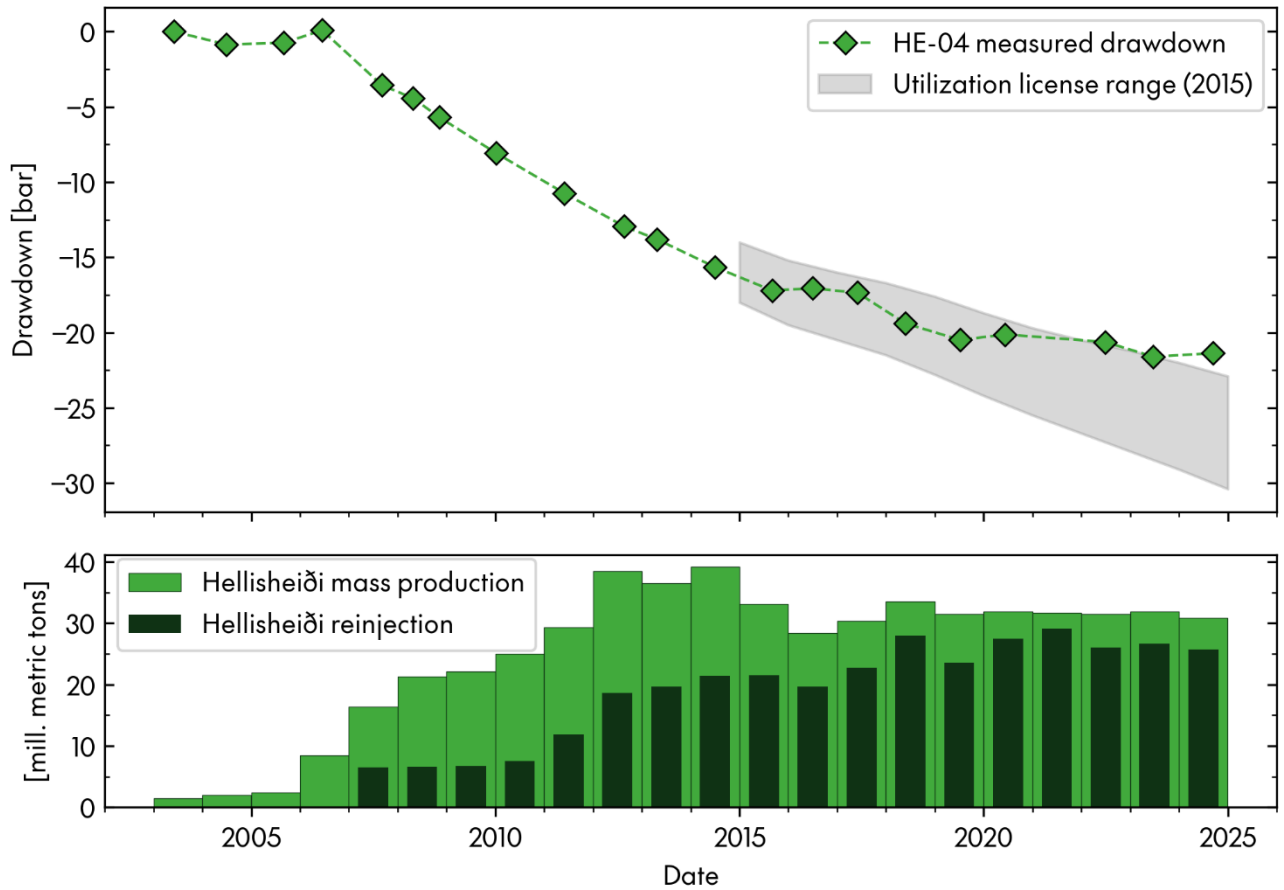
Nesjavellir

Drawdown (bar) and average annual production at Nesjavellir at approx. 1550 m depth in wells NJ-15 from 1985 to 2024 and NJ-18 from 1988 to 2022 and annual production and reinjection at Nesjavellir from 1972 to 2024 (mill. tons per annum). Production from wells at Nesjavellir for utilization at the Nesjavellir power plant started in 1990.



Hellisheiði

Drawdown (bar) at Hellisheiði, at approx. 1540 m depth in well HE-04 from 2003 to 2024 and annual production and reinjection at Hellisheiði from 2003 to 2024 (mill. tons per annum). The grey shaded area shows the limits of drawdown in well HE-04 according to permits since 2015. Production from wells at Hellisheiði for utilization at the Hellisheiði power plant started in 2006.



Hverahlid

Drawdown (bar) at Hverahlid, at approx. 1310 m depth in well HE-21 from 2006 to 2024 and annual production at Hverahlid (mill. tons per annum). Production from wells at Hverahlid for utilization at the Hellisheidi power plant started in 2006.

