

Energy transition Zuid-Holland

Renewable energies in district heating: moving away from a supply dominated by natural gas ('Groningen-gas')

June 2019

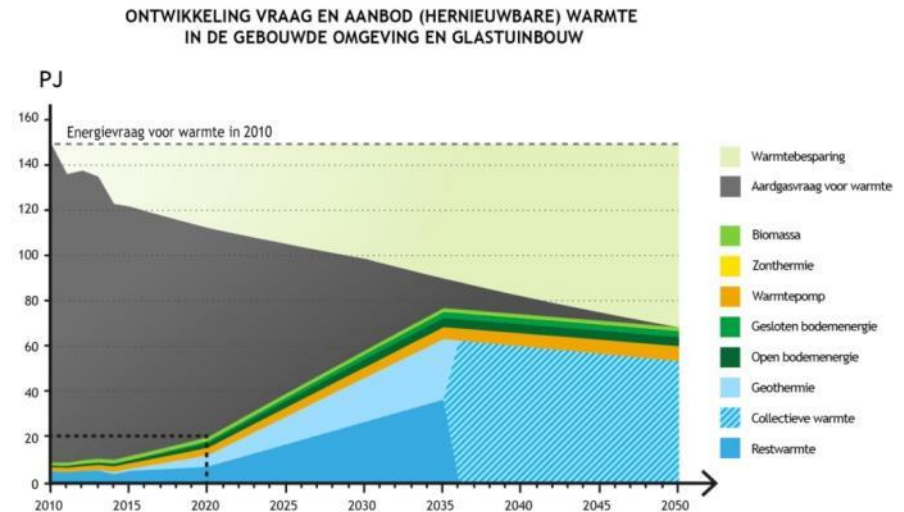


provincie **HOLLAND**
ZUID

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programma of Energy Transition

Towards carbon neutral in 2050

The facts for Zuid-Holland	2020	2050
Total heatdemand (households and greenhouses)	115 PJ	Reduction towards 75 PJ
% residual and renewable (geothermal) heat	20 PJ	Towards 60 PJ



*1 PJ approx:
5 to 8 geothermal projects
30 windturbines of 3MW*

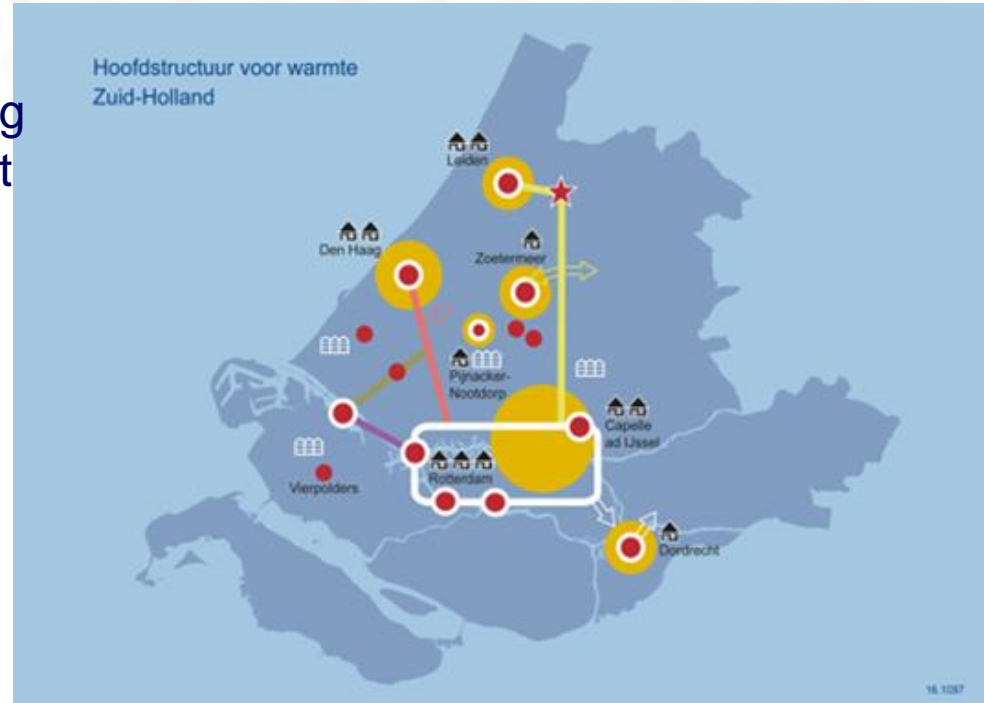
Source: Warmteplan Zuid-Holland (policy plan on heat supply) 2018

The grand concept: the “Heat Roundabout”

Realisation of a provincial district heating main infrastructure, use of residual heat (which now disappears into the air or water) and geothermal heat

A heat infrastructure system with an independent transport operator and working towards a “open heatmarket”

Working in Alliances; public private partnerships



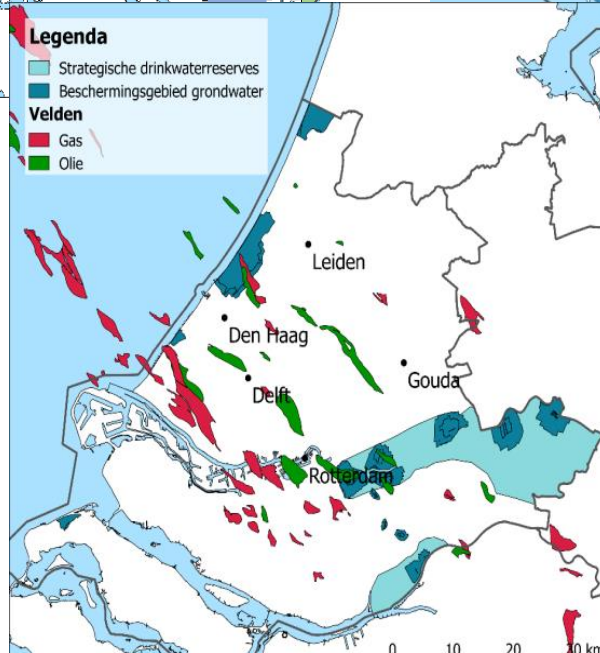
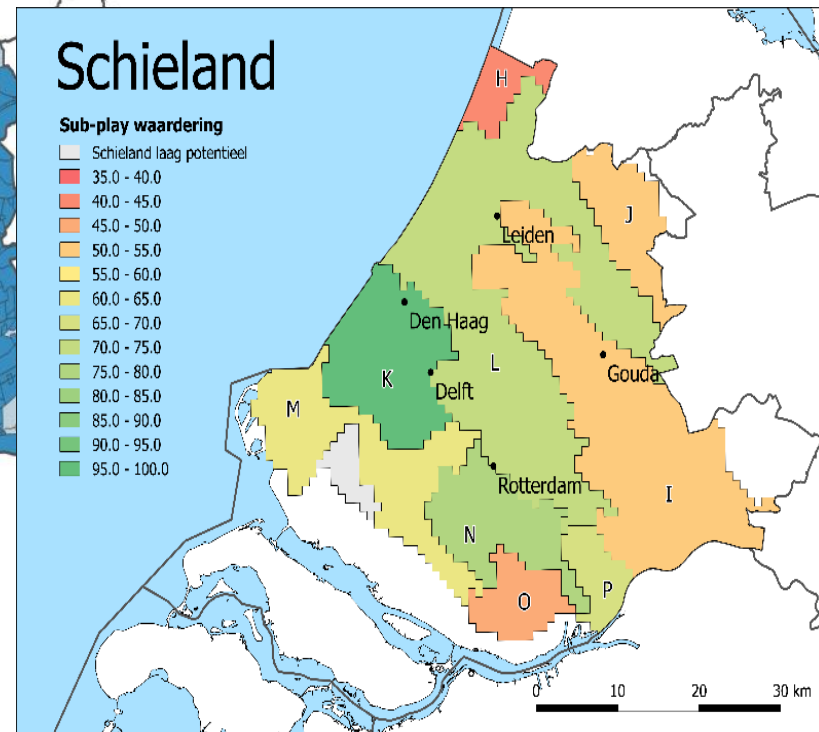
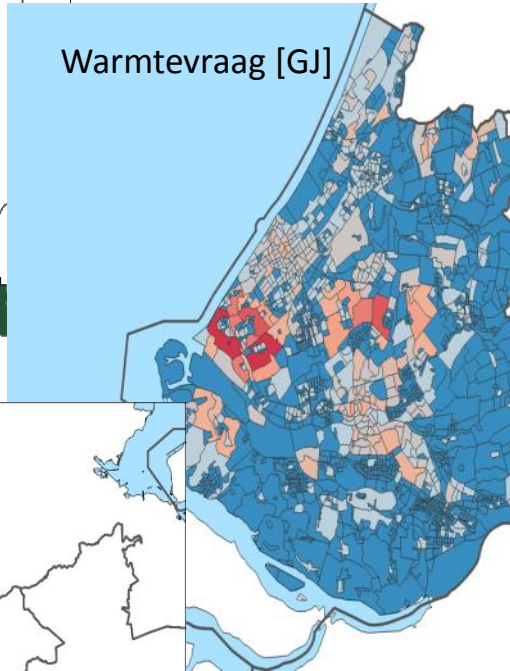
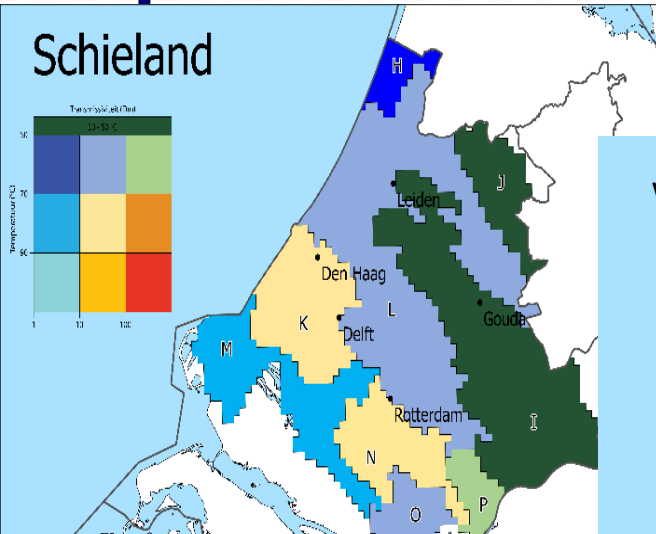
towards 40 PJ geothermal energy in Zuid-Holland



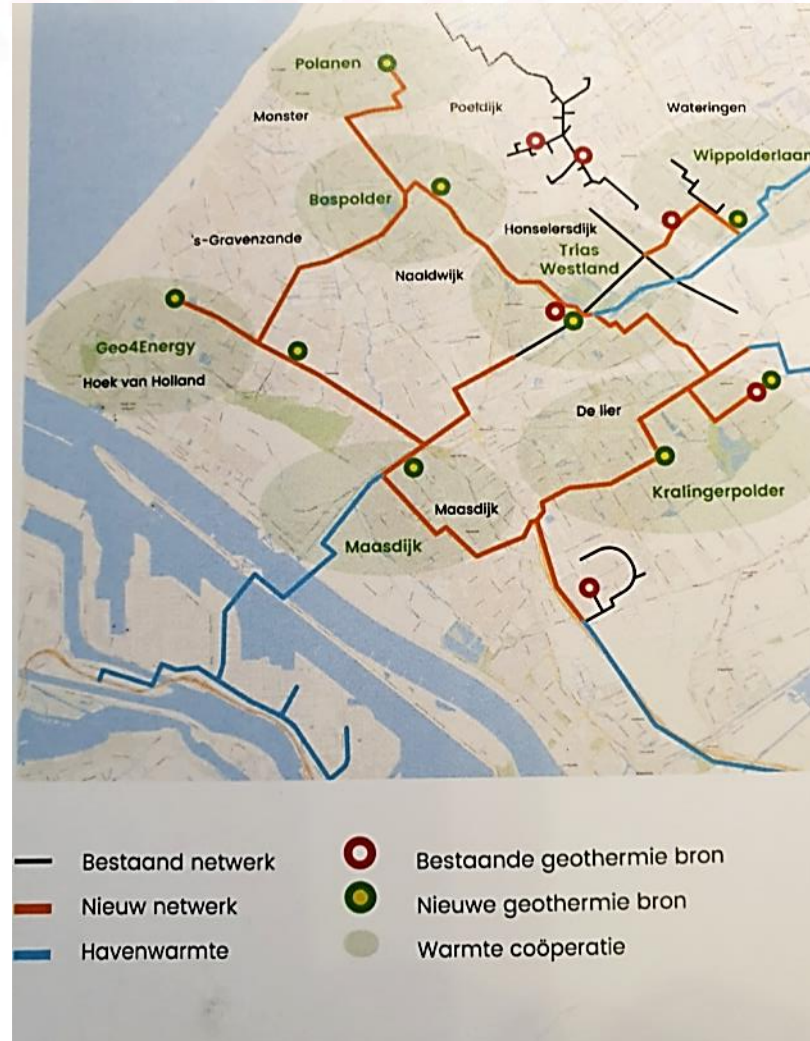
November 9, 2017
Letter of Intent signed
of the Geothermal
Alliance Zuid-Holland



Portfolio approach for geothermal exploration and exploitation



(sub-)regional distribution network and integration: Heat System Westland



Expectations on the S3 partnership added value for South-Holland implies:

- an open communication and discussion on best practises;
- exchange of ideas on strategy for further development and funding of geothermal energy;
- Our focus is on direct use (heating for greenhouses and housing districts)
- Focus on the role of government organisations involvement like ourselves, for instance on:
 - Safety and risk management
 - Public acceptance
 - coördination & organisation (Public Private Partnerships, civic cooperations, etc)
 - process management
 - Finance and funding
 - Legislation and administrative issues

Expectations on the S3 partnership added value for South-Holland implies:

- less involved as government organisation in the technical aspects of drilling , well management etc. , but
- Relations with commercial and academic partners can be built upon, for instance :
- the Open Innovation Centre Rijswijk (existing facility)
- Delft Technical University (research well)