

THE HAGUE



ENERGY REGION

◆ The City
The Business
The **Hague.**

The **Hague.**

Business Agency

THE HAGUE ENERGY REGION

ABOUT THE HAGUE

The Hague is a very special place. It's an engaging, intimate seaside city that brings together people from all corners of the globe to work on key challenges, take important decisions and help build a better, safe and more just world. The Hague is the seat of the Dutch government and is international renowned as the city of peace and justice.

Located on the west coast of the Netherlands, The Hague is the capital of the Province of South Holland. It is compact, covering just 38 square miles, and has an integrated transport infrastructure which comprises a comprehensive public transport network, good quality roads and carefully planned bicycle lanes.

With approximately 540,000 residents, The Hague is the third-largest city in the Netherlands, part of the larger Rotterdam-The Hague Metropolitan Region, which has a combined population of 2.7million.



The Hague is easy to reach

The Hague is easy to reach from anywhere in the world. It is located in one of the best connected regions in Europe with easy access to two international airports and train stations.

Amsterdam Schiphol Airport one of the Europe's leading airports. It is connected to hundreds of international destinations. There is a direct train connection to The Hague Central Station and The Hague HS five times per hour from Schiphol Airport, taking approximately 30 minutes.

THE HAGUE AND ENERGY

By 2050 the Dutch government aims to reduce greenhouse emissions by 95% compared to 1990 figures. The Hague sets meaningful steps towards a new energy system and the transition readiness of the city's real estate by 2030 in order to eventually become a net-zero city. As the energy sector is undergoing a radical transformation towards a zero-carbon future, The Hague is rapidly developing into an internationally leading centre of "new energy" activities.

New Energy covers electricity and heat generating industries such as (offshore) wind, solar, marine and geothermal. It, however, is much more than that. It relates to all sustainable solutions that lead to a lower carbon footprint. Think of hydrogen, energy storage, electrification, carbon storage, cleantech, but also digitalization and much more. The Hague offers a perfect landscape for companies in new energy to flourish.

The Hague region has a great track record in the energy sector. It is home to numerous companies operating in the energy industry, including Total, Siemens Gamesa, Orsted, Wintershall, Shell, Aramco Overseas and Neptune Energy. Several large global engineering companies and service providers, such as McDermott, Worley, TNO, Tebodin, Schlumberger and Technip, are based in the city too.

The Hague has always been a strategic option for energy companies, being in close proximity to the Dutch government, knowledge and research institutes, trade associations and of course the industry. The port of Rotterdam and international airport Schiphol are both within 45 minutes reach, making it a central location on a geographical point of view as well. For these reasons many companies decide to manage their EMEA and/ or global activities from their The Hague office.

The Hague region is home to many excellent, high-standard educational facilities, including a wide range of international schools at both primary and secondary level. In addition, there are a number of research and knowledge centres in the city or in close proximity that focus on engineering and technology, such as Delft University of Technology, The Hague University of Applied Sciences and ROC Mondriaan.

For young enterprises with innovative solutions The Hague can offer a number of initiatives to help them reach the next level. ImpactCity, for instance, creates an optimal climate in The Hague in which 'impact makers' are in pole position to tackle global challenges. They help start- and scale up companies with service, housing and financing. There is also a variety of incubators including YES!Delft, World Startup and the Buccaneer.



IMPACTCITY

The Hague is the city for entrepreneurs who want to build a better world. As ImpactCity, The Hague offers a wide range of opportunities and services to entrepreneurs and other impact makers with innovative solutions.

The city encourages 'doing good & doing business' in all kinds of ways with practical help: assistance with settling, startup hubs, possibilities for financing and a great infrastructure. The local and at the same time unique international network of The Hague connects NGOs, research centers, knowledge institutes, established companies, governments and many young and creative entrepreneurs who want to make a difference, creating an unique and leading impact ecosystem.

With figureheads like the Peace Palace, the International Court of Justice, Europol and the International Criminal Court, The Hague is worldwide known as the international city of peace and justice. Every day, tens of thousands of people in The Hague are working towards a better future and solve global problems. Together they work, share their knowledge and develop new ideas.

For more information

◆ www.impactcity.nl

ImpactCity



ImpactCity pillars

- Make the unknown known
- Access to relevant networks
- Access to growth capital
- An infrastructure to foster growth
- Access to new talent
- Facilitate experiments

THE HAGUE ENERGY REGION



The North Sea

The North Sea plays a key role in the energy transition. At first with oil and gas production and now increasingly with renewable energy. It offers opportunities for, marine energy, large-scale offshore wind, hydrogen production and carbon storage.



Types of energy

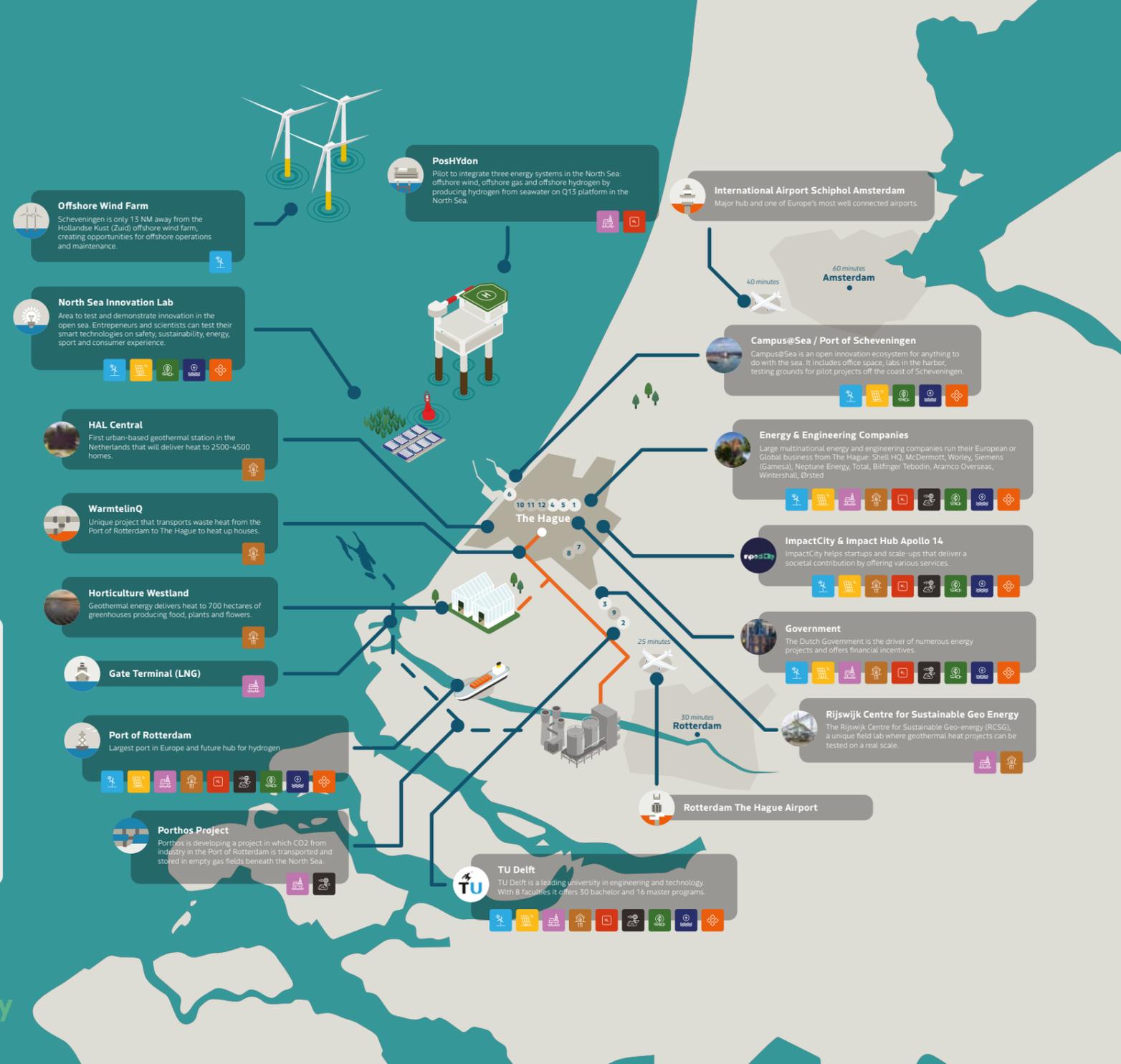


Start-up infrastructure

1. Yes!Delft - The Hague
2. Yes!Delft - Delft
3. Buccaneer
4. WorldStartup
5. The Hague Tech

Other highlights

6. Dutch Marine Energy Centre (DMEC)
7. The Hague University of Applied Science
8. ROC Mondriaan
9. Green Village
10. Shell New Energies
11. Nexstep
12. NOGEPA



Offshore Wind Farm
Scheveningen is only 15 NM away from the Hollandse Kust (Zuid) offshore wind farm, creating opportunities for offshore operations and maintenance.

North Sea Innovation Lab
Area to test and demonstrate innovation in the open sea. Entrepreneurs and scientists can test their smart technologies on safety, sustainability, energy, sport and consumer experience.

HAL Central
First urban-based geothermal station in the Netherlands that will deliver heat to 2500-4500 homes.

WarmtelinQ
Unique project that transports waste heat from the Port of Rotterdam to The Hague to heat up houses.

Horticulture Westland
Geothermal energy delivers heat to 700 hectares of greenhouses producing food, plants and flowers.

Gate Terminal (LNG)

Port of Rotterdam
Largest port in Europe and future hub for hydrogen

Porthos Project
Porthos is developing a project in which CO2 from industry in the Port of Rotterdam is transported and stored in empty gas fields beneath the North Sea.

PosHYdon
Pilot to integrate three energy systems in the North Sea: offshore wind, offshore gas and offshore hydrogen by producing hydrogen from seawater on Q13 platform in the North Sea.

International Airport Schiphol Amsterdam
Major hub and one of Europe's most well connected airports.

Campus@Sea / Port of Scheveningen
Campus@Sea is an open innovation ecosystem for anything to do with the sea. It includes office space, labs in the harbor, testing grounds for pilot projects off the coast of Scheveningen.

Energy & Engineering Companies
Large multinational energy and engineering companies run their European or Global business from The Hague: Shell HQ, McDermott, Worley, Siemens (Gamesa), Neptune Energy, Total, Biffinger Tebodin, Aramco Overseas, Wintershall, Orsted

ImpactCity & Impact Hub Apollo 14
ImpactCity helps startups and scale-ups that deliver a societal contribution by offering various services.

Government
The Dutch Government is the driver of numerous energy projects and offers financial incentives.

Rijswijk Centre for Sustainable Geo Energy
The Rijswijk Centre for Sustainable Geo-energy (RCSG), a unique field lab where geothermal heat projects can be tested on a real scale.

TU Delft
TU Delft is a leading university in engineering and technology. With 8 faculties it offers 30 bachelor and 16 master programs.

THE HAGUE ENERGY REGION

GEO THERMAL ENERGY

The geothermal energy industry has great momentum and is entering the "Geothermal Decade". The Hague is a hotspot for the (international) geothermal energy industry with application in horticulture, the built environment, a state of the art test center, a leading university and the International Geothermal Association. The Hague activates the international network of the geothermal industry. Not only by bringing the private sector together, but also by activating many embassies, NGOs and international organisations seated in the city.

Key players



Public partners and associations



Industry



The Hague Business Agency

ImpactCity

Sector Highlights



Rijswijk Centre for Sustainable Geo Energy

Donated by Shell to TNO (Dutch Technological Research Agency), this lab has been designed with the purpose of experimenting with new drilling techniques or materials. The centre has over 20 installations available which simulate the entire process of drilling (including a 400 meter deep well) and subsurface conditions for testing materials.



Horticulture & Green Port

Horticulture is in close proximity of The Hague, namely in the Westland and Oostland areas. Here, twelve doublets (plus 2 drilled in 2020) deliver heat to 700 hectares of greenhouses producing food, plants and flowers. The goal in this region is to connect all heating networks and supply a steady baseload of geothermal heat.



HAL Central

HAL (Haagse Aardwarmtecentrale Leyweg) will supply sustainable energy to The Hague Southwest district from wells lying more than 2,000 metres underground. HAL is unique: it is the first urban-based geothermal station in the Netherlands.



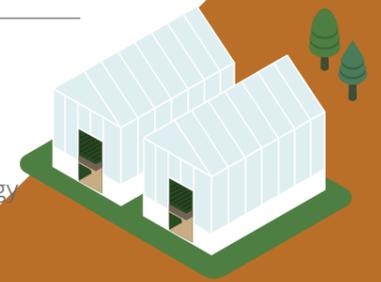
TU Delft

TU Delft is a top notch technical university offering several bachelor and master programs related to geothermal energy. On top of that they perform a lot of research for public and private partners. In collaboration with TNO, Shell and Hydroco they will actually drill their own well. Of course for R&D purposes, but also to deliver heat to the TU Delft campus and the surrounding environment.

Additional resources

For more information about

- ♦ Geothermal Energy in The Hague » bit.ly/3fJwPOy
- ♦ Geothermie Nederland » geothermie.nl/index.php/nl
- ♦ EBN New Energy » ebn.nl/en/energy-transition/new-energy



THE HAGUE ENERGY REGION

OIL & GAS, ENGINEERING, HYDROGEN AND CC(U)S

The Hague region has a great track record in the energy sector. It is home to numerous companies operating in the energy industry. The latest developments on CC(U)S, hydrogen and clean fuels are all within the scope of these companies, not forgetting the decommissioning of existing platforms in the North Sea.

Key players



Public partners and associations



Industry



Sector Highlights



PosHYdon

PosHYdon is world's first announced offshore green hydrogen pilot. It aims to integrate three energy systems in the North Sea: offshore wind, offshore gas and offshore hydrogen by producing hydrogen from seawater on our Q13-a platform in the Dutch North Sea. The aim of the pilot is to gain experience of integrating working energy systems at sea and the production of hydrogen in an o-shore environment.



Porthos

Porthos is developing a project to transport CO₂ from industry in the Port of Rotterdam and store this in empty gas fields beneath the North Sea. Porthos stands for Port of Rotterdam CO₂ Transport Hub and Offshore Storage. It is expected that, in its early years, the project will be able to store approximately 2.5 million tonnes of CO₂ per year.



Decommissioning & Nexstep

Nexstep is the joint initiative of EBN and the Dutch oil and gas industry, represented by NOGEPa. It is our ambition to stimulate re-use and collaboration in decommissioning of oil and gas infrastructure in the Netherlands. A first major accomplishment is that six oil and gas operators working off the Netherlands will for the first time in the country's history undertake a joint campaign for decommissioning gas wells.



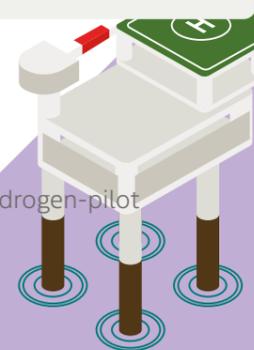
Major players

Many large energy companies, engineering firms and service providers run their European and/or global business from The Hague. Besides these larger firms young innovative companies are continuously joining The Hague's energy ecosystem.

Additional resources

For more information about

- ◆ PosHYdon » www.neptuneenergy.com/esg/new-energy/poshydon-hydrogen-pilot
- ◆ Nexstep » www.nexstep.nl/decommissioning-landscape
- ◆ Porthos » www.porthosco2.nl



THE HAGUE ENERGY REGION

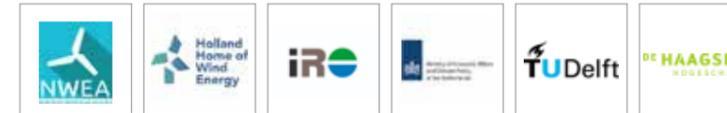
OFFSHORE WIND

Seaport The Hague-Scheveningen lies directly on the North Sea. It is centrally located on the Dutch coast and affords rapid movement (approximately five minutes) of shipping in and out of the harbour. The port is certainly suitable for a service base facility for operations and maintenance.

Key players



Public partners and associations



Industry



Sector Highlights



Hollandse Kust Zuid offshore wind farms

The Hollandse Kust (Zuid) Wind Farm Zone (HKZWFZ) lies off the west coast of the Netherlands, in the coastal waters of the province of Zuid-Holland (South Holland). This wind farm zone has 4 sites. The Hague is only 13 NM away from these wind farms, creating opportunities for offshore operations and maintenance.



Major Players

The Hague has a long history and a strong position in the energy sector. Though The Hague is not the place where developments in offshore wind take place physically, it is where decisions are taken at headoffices of major companies. It is home to developers such as Shell and Ørsted, but also to large manufacturers Siemens Gamesa and Goldwind.



Education

The Hague region is home to many excellent, high-standard educational facilities, including a wide range of international schools at both primary and secondary level. To provide the necessary skilled labour, specific initiatives for jobs in energy have been launched by the municipality in collaboration with knowledge institutes like ROC Mondriaan, The Hague University of Applied Sciences, TNO, Leiden University and Delft University of Technology.



Campus@Sea / Port of Scheveningen

Campus@Sea is the innovation centre for innovations at sea and along the coast of Scheveningen and The Hague. At Campus@Sea, parties are brought together around the themes of food, energy, ecology and sports. Campus@Sea is not just a physical space; more so, it represents a network of networks that boosts sustainable innovation in and around the ocean. What's more, it offers space for much needed practical experimentation.

Additional resources

For more information about

- ◆ Interview Siemens Gamesa » bit.ly/34gouN6
- ◆ Campus@Sea » campusatsea.nl
- ◆ Winddays » nwea.nl/nwea-events/?lang=en



MARINE ENERGY

Marine energy refers to the renewable energy that can be generated from our oceans, seas and rivers. It can be captured from waves, tides, difference in salinity gradients, and the heat stored in surface ocean water. Marine energy offers multi value propositions for greening and balancing electricity networks, increasing the value of infrastructures, sustaining operations, powering off-grid communities and fostering coastal protection. Right next to the North Sea, The Hague has the best access to the marine energy innovation ecosystem, covering all types of marine energy technologies.



Key players

Public partners and associations



Industry



Sector Highlights



Campus@Sea / Port of Scheveningen

Campus@Sea occupies a central place in this knowledge and innovation ecosystem, as a driver and facilitator for bringing together a network of the Campus@Sea community. Innovation projects and events are jointly carried out surrounding the themes of food, energy, ecology and sport to share knowledge, test, learn and demonstrate. It is a field lab for innovation with unique test facilities, with support for entrepreneurs with ground-breaking innovation projects thanks to the (maritime) ecosystem in the region.



Offshore Test Site

Offshore Test Site is an offshore test location of 6 km² (3 x 2 km), located 12 km at the coast of The Hague (Scheveningen). The Offshore Test Site is an independent test site for research, pilots and the upscaling of innovations in the field of seaweed cultivation and co-use of offshore wind farms and marine energy. The Offshore Test Site is managed by the North Sea Farmers.



DMEC Dutch Marine Energy Centre

DMEC is an accelerator for marine energy solutions. DMEC believes that the enormous amount of energy stored in our oceans, seas and rivers will be a crucial driver to realise our global energy transition and foster sustainable growth. By advancing innovation, mobilising capital and shaping policies, DMEC creates multipurpose energy solutions for a wide variety of markets.



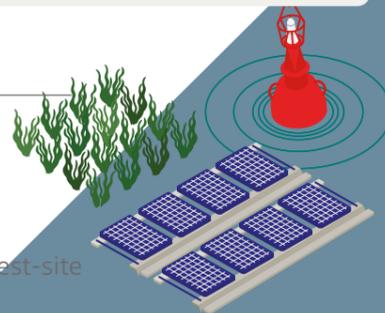
Marine Energy Hub

DMEC's Marine Energy Hub brings together people, information and tools to accelerate marine energy solutions. From marine energy technology developers, research and test facilities, businesses in the offshore, maritime and delta-tech sectors, investors to policy makers. Right next to the North Sea, the Hub has the best access to the marine energy innovation ecosystem, covering all types of marine energy technologies.

Additional resources

For more information about

- ♦ Interview Britta Schaffmeister » bit.ly/2RHTyT6
- ♦ DMEC » dutchmarineenergy.com
- ♦ North Sea Innovation Lab » northseafarmers.org/offshore-test-site



ABOUT THE HAGUE BUSINESS AGENCY

What can we do for you?



Connect you with talent, up-to-date information, relevant business partners, government authorities, and a variety of Dutch networks & service suppliers.



Assist you in setting up the company, finding office space, opening a bank account, immigration topics a.o.



Organise fact-finding trips & site selection missions with service providers.



Provide concrete solutions and counsel to simplify and enhance your establishment in the Netherlands.



Get in touch

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