

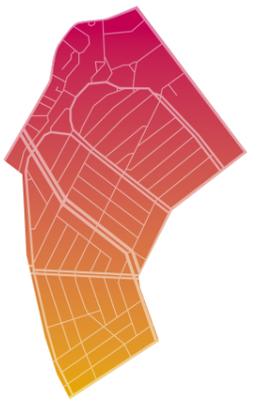


TO THE RESIDENTS OF THIS ADDRESS

**OCTOBER 2020**  
A JOINT RELEASE OF  
THE MUNICIPALITY OF THE HAGUE  
AND STATENWARMTE



**STATENWARMTE**  
Naar een aardgasloos Statenkwartier



# Help us with the 'energy plan'

## Your opinion counts!

Current Dutch policy aims at switching to sustainable energy in order to combat climate change. At the moment we are almost entirely dependent on natural gas and oil. This involves undesirable CO<sub>2</sub> emission. Too much CO<sub>2</sub> warms up the earth and changes the climate resulting in floods and long periods of drought. To counteract such consequences in the future, the Netherlands aims to switch towards utilizing only clean energy from geothermal sources (heat from the Earth), water and the sun to enable us to heat our homes, cook and shower.

In The Hague, also, the municipality is planning this switch together with residents, entrepreneurs and other partners. This is achieved by firstly saving energy and insulating homes and buildings, and then switching to new forms of clean energy. It is a prerequisite that the comfort in your homes is maintained and the wishes of the residents are respected. The Statenkwartier is one of the neighborhoods in which an active resident group is planning ahead.

## 4 scenarios

Based on the research by DWA and the input we received from residents in the past, we present four scenarios on which you can give your opinion.

- 1 **Individual solution**, all-electric with a heat pump;
- 2 **Collective solution** for the Statenkwartier (district heating or 'warmtenet');
- 3 **Renewable gasses**;
- 4 **Wait**, and decide later.

More information, see the next pages.

## What does this mean for your situation?

At the moment, nothing changes in the way you heat your home, cook and shower. The initiators of this tabloid, the residents group 'Statenwarmte', want to involve you as much as possible in the plans that are being made in the Statenkwartier for the transition to clean energy. We look forward to receiving your opinion on this subject. Hence this survey.

### Your opinion is important

You can read more about the different options on the next pages. We think it is important that you participate even if you have concerns about issues such as costs, technical feasibility or the speed with which plans are being made.



**FILL IN  
THE SURVEY**

Please  
fill in before  
October 19th

## What's next?

- Please read the information below carefully.
- Go to [www.statenwarmte.nl/meningspeiling](http://www.statenwarmte.nl/meningspeiling). You will find a link to the digital survey.
- Fill in the survey as completely as possible.

Do you have any questions? Or do you want to participate in the survey but don't have a computer? Please contact us via [info@statenwarmte.nl](mailto:info@statenwarmte.nl) or come to the Saturday morning consultation hour at Doppio at the Frederik Hendriklaan from 9 - 12 AM. We will try and find a solution for you.

## What's later?

**November 25th 2020, 20.00**

Presentation results neighbourhood survey and concept energy plan.

More information:

[www.statenwarmte.nl/zoom](http://www.statenwarmte.nl/zoom).

## Participate?

If you want to contribute to Statenwarmte, send an e-mail to [info@statenwarmte.nl](mailto:info@statenwarmte.nl).

**November 25th results neighbourhood survey and concept energy plan**

## Scenario A Individual solution, all-electric with a heat pump

In this scenario, a resident organizes his / her own heat supply. With very good insulation and a heat pump\* the house can be made natural gas-free.

### Key points

- 1. Heating:** with a heat pump that extracts heat from the air, in both summer and winter. The heat pump will be connected to your central heating system.
- 2. Hot tap water:** with the same heat pump, in combination with a water heater.
- 3. Cooking:** electric cooking, for example with an induction hob.
- 4. Insulation:** the house must be very well insulated (see report DWA: package B).
- 5. Infrastructure:** you remain connected to the electricity grid; your gas connection is closed off or completely removed.
- 6. Solution type:** individual. You do not depend or benefit on what others in the neighborhood are doing.

### Benefits

- Annual costs for heating are low. Think of a bandwidth of € 700 - € 1,200 per year.
- You can determine the moment of switching from natural gas to all-electric yourself.
- You are not dependent on heat suppliers.

### Cons

- Drastic measures are required, a lot of insulation, and extra radiators / convectors or floor heating.
- Investments on these measures are relatively high. Think of a bandwidth of € 34,000 - € 67,000.
- Inconvenience in the street when many residents switch to all-electric, the electricity grid most likely will need to be upgraded (excavation work)

### Point of attention

- Sustainability:** If you purchase green energy from your supplier or generate electricity yourself with solar panels, this is a really sustainable scenario. If you use "gray" energy, this is a less sustainable solution.

\* A heat pump is an electrical appliance that replaces the boiler. It absorbs heat from the air outside and transports this heat to the radiators / convectors / underfloor heating in your home. In addition to the heat pump itself, a buffer tank is required for the storage of hot water for the heating system and for hot tap water. The appliances will be placed where your boiler is now situated, but they will need more space. Any outdoor unit can be placed on the roof or in the garden. (Source: *factsheet Buurtenergie Statenkwartier*)

## Scenario B Collective solution, district heating by the neighborhood

In this scenario, district heating\* is installed in the Statenkwartier.

### Key points

- 1. Heating:** a hot water pipe enters your home at the front door and is connected to your central heating system.
- 2. Hot tap water:** is also heated with the heat from the district heating network.
- 3. Cooking:** electric cooking, for example with an induction hob.
- 4. Insulation:** the house needs to be moderately insulated (see report DWA: package A)
- 5. Infrastructure:** new network (district heating) to be constructed; your gas connection is closed off or completely removed.
- 6. Solution type:** collective. You connect to a neighborhood network.

### Benefits

- Annual costs for heat are low, comparable to current costs for natural gas. Think of a bandwidth of € 1,300 - € 2,000 per year.
- Sustainability: of the scenarios that can be implemented for the year 2030, this scenario contributes the most to CO<sub>2</sub> savings.
- Modifications to the home are limited.

### Cons

- Moment of switching: collective system, so less flexible than in the all-electric scenario.
- Investment in the home: the total costs for insulation and home adaptation are between € 12,000 - € 15,000.
- Dependency on a supplier: you will probably have to deal with 1 heat supplier.

### Point of attention

- Comfort:** the hot water in the heat network has a temperature of approximately 70 degrees\*\*. Homes with floor insulation, roof insulation and double glazing can thus be kept warm.

\* What is a district heating network? It is a network of underground pipes that run through the streets of a neighborhood. In the pipes hot water flows that is heated by a central source. The pipes supply the heat to the houses to use for heating and hot tap water. The heat can come from many different sources. (source: *Klimaatbureau HIER*)

\*\* In the Vruchtenbuurt and Vogelwijk, a test was carried out to set the boilers at 70 degrees. Result: hardly any comfort complaints.

## Scenario C Renewable gasses

In this scenario, you prefer renewable gas, such as hydrogen or biogas.

### Key points

- 1. Heating:** you will continue to heat your home with a central heating boiler. It will be another model that is capable of using renewable gas instead of natural gas.
- 2. Hot tap water:** is supplied by the new central heating boiler.
- 3. Cooking:** you will probably use electric cooking, for example with an induction hob.
- 4. Insulation:** is not really necessary to keep your house warm, but it does save heating costs; think of a payback time of 5 - 15 years depending on the type of measure taken (investment costs indication € 12,000 - € 15,000)
- 5. Infrastructure:** the renewable gas flows through the existing gas network, which only needs to be adapted to the new gas to a limited extent.
- 6. Solution type:** collective. This solution depends on what will happen to the existing gas network in the rest of the city.

### Benefits

- Investment in your home: low. Think of € 5,300 per home for a new central heating boiler and stove.
- Adjustments to the home: you do not have to do anything in the short term. If you switch to renewable gas in the longer term, your boiler and cooking appliance will have to be adapted.
- Sustainability: very sustainable when using sustainably produced hydrogen (green hydrogen).

### Cons

- Feasible within the coming 10 years: no. Hydrogen will be available to a limited extent in the coming years, especially for industry and heavy transport. According to national policy, hydrogen is not an option for existing homes, unless there is really no other alternative.\* The municipality follows this national policy in the Urban Energy Plan ([https://denhaag.raadsinformatie.nl/document/8651510/1/RIS305064\\_bijlage](https://denhaag.raadsinformatie.nl/document/8651510/1/RIS305064_bijlage)).
- Annual costs for heat: high. Think of a bandwidth of € 2,600 - € 4,900 per year.
- Uncertainty: there is still a lot unclear about the applicability, safety, availability, sustainability and affordability of hydrogen.

\* If hydrogen does not seem feasible, why does Statenwarmte present this scenario? Residents requested us in 2019 to include a renewable gas (hydrogen) in the DWA study. We did as requested but it has now become clear that this scenario is not feasible within the next 10 years. The municipality emphasizes that no statement can be made with any certainty about the availability of renewable gas (hydrogen gas) for the Statenkwartier.

## Scenario D Wait, and decide later

In this scenario, you prefer to remain connected to natural gas for the time being.

### Key points

- 1. Heating:** you continue to heat your home with natural gas.
- 2. Hot tap water:** you will continue to use natural gas.
- 3. Cooking:** you continue to cook on natural gas.
- 4. Insulation:** is not really necessary to keep the house warm, but does save on heating costs; think of a payback time of 5 - 15 years depending on the type of measure (investment costs indication € 12,000 - € 15,000)
- 5. Infrastructure:** you will continue to use the existing natural gas network.

### Benefits

- Investment in the home is low.
- Annual costs for heat at the moment: low, it is comparable to district heating.
- Modifications to the home: none

### Cons

- Sustainability: not sustainable, you will continue to use fossil fuels. This is the scenario with the most CO<sub>2</sub> emissions per year.
- Dependency on external parties: large. The municipality will eventually connect neighborhoods to clean energy sources.\* By waiting, residents have less or possibly no influence on the final solution.
- Annual costs for heat in the longer term: will be higher. The government has indicated that it will increase the energy tax on natural gas and, conversely, encourage sustainable energy solutions with subsidies. The use of natural gas will therefore become financially increasingly unfavorable.

\* The municipality has to decide about the future clean energy solutions per district in 2021. At that time it will also become clear when natural gas will no longer be available in the Statenkwartier.

## Assumptions

All costs mentioned are indicative and may differ per home. We introduced a bandwidth based on homes that have not yet been insulated. Please note that when your home has been (partially) insulated the costs will be lower.

The basis of the information is the DWA report of March 2020 ([www.statenwarmte.nl/rapport](http://www.statenwarmte.nl/rapport)). This is based on homes in the Statenkwartier that are currently heated with a natural gas central heating boiler. In the calculations, three housing types have been considered, varying from an apartment of 75 m<sup>2</sup> to a house of 230 m<sup>2</sup>.

We have limited ourselves to three important pros and cons for each scenario.



## The four scenarios in short

Scenarios A, B and C are pathways to a natural gas-free Statenkwartier. Summary of the 2020 DWA report.

	Scenario A	Scenario B	Scenario C	Scenario D
Can you be natural gas free within 10 years?	yes	yes	no	*
One-off investment for residents	€ 39,600	€ 12,200	€ 5,300	€ 1,900
Annual costs for residents for the purchase of heat (gas, heat, electricity)	€ 900	€ 1,600	€ 3,700	€ 1,700
Total costs over 30 years per home (inside and outside, network, sources)	€ 78,300	€ 47,300	€ 85,800	€ 53,400
CO2 emissions per year ("sustainability", the more kg emissions, the less favorable)	1,300 kg	700 kg	400 kg	3,300 kg
Noise pollution in the home, e.g. by a heat pump	limited	no	no	*
Safety in the home	no gas in house	no gas in house	gas in house	gas in house
Adaptation to the home (a lot has to be done, e.g. insulation and replacing pipes)	yes	limited	no	*
Extra space requirement in the home (e.g. large appliances)	yes	no	no	*
Inconvenience in the street (e.g. digging, excavating)	limited	yes	limited	*
Need of participation of the entire or a large part of the neighborhood	no	yes	yes	*
Dependency on operator of heat supply	no	yes**	yes	*
Ability to switch at the moment of your own choosing	yes	limited	limited	*
Ability to use a "local" sustainable heat source	limited	yes	limited	*
Extra use of space for the power plant in the city, e.g. an extra building will be built somewhere in the city	no	yes	limited	*

\* Left blank by DWA \*\* Cooperative model reduces operator dependency (monopolist)



## [www.statenwarmte.nl/meningspeiling](http://www.statenwarmte.nl/meningspeiling)

Please go to [www.statenwarmte.nl/meningspeiling](http://www.statenwarmte.nl/meningspeiling) and complete the digital survey. You don't have a computer or can't figure it out? Please contact us via [info@statenwarmte.nl](mailto:info@statenwarmte.nl) or come to the Saturday morning consultation hour at Doppio on Frederik Hendriklaan (137) (see [www.statenwarmte.nl](http://www.statenwarmte.nl)). Below you will find the survey, so you can prepare your answers before you go digital.

Your data will be treated confidentially in accordance with the GDPR. Filling out this poll is in no way legally binding and does not create any obligations.

### Introductory questions

- 1 What is your address?  
.....
- 2 Are you the owner or the tenant of this house?
  - a. Owner
  - b. Tenant
  - c. If tenant, who is the owner?  
(if possible name and telephone number or email address of the owner, we can then contact the owner)
- 3 How long have you been living in this house?
  - a. 0 - < 5 yrs
  - b. 5 yrs - < 10 yrs
  - c. 10 yrs - < 20 yrs
  - d. 20 years or longer
- 4 Do you have plans to move within 5 years?
  - a. Yes
  - b. No
  - c. Don't know

### Familiarity with the energy transition and Statenwarmte

- 5 The Municipality of The Hague aims to switch to clean energy by 2030. Were you aware of this?
  - a. Yes
  - b. No
- 6 In the Statenkwartier, a group of residents has taken the initiative to draw up a future plan Statenwarmte. Since 2018 a dialogue with the local residents has been organized through meetings, interviews, surveys and coffee table discussions. Have you taken part in one or more of these activities?
  - a. Neighborhood meetings
  - b. Interviews/surveys
  - c. Other, namely .....
  - d. No, none of these
- 7 Regular articles have been published in the Statenkoerier on Statenwarmte. Have you read any of these articles?
  - a. Yes, I have read one or more of these articles
  - b. No, I haven't read any of these articles
  - c. I don't read the Statenkoerier
  - d. I don't know the Statenkoerier

### Willingness to invest in insulation

- 8 Have you already invested in insulating your home?
  - a. Yes, double glazing
  - b. Yes, floor insulation
  - c. Yes, roof insulation
  - d. Yes, other measures, namely .....
  - e. No, I have not yet invested in insulation
- 9 Are you planning to invest in (additional) insulation in the next 10 years?
  - a. Yes, double glazing
  - b. Yes, floor insulation
  - c. Yes, roof insulation
  - d. Yes, other measures, namely .....
  - e. No

### Preferred scenario

The leaflet you have received from us contains essential elements of the four scenarios in a matrix to ease comparison. It can help you to answer the following questions.

Engineering bureau DWA presented a number of scenarios for the Statenkwartier in March 2020. DWA concludes that, everything considered, scenario B (the collective solution "district heating at 70 degrees") for the houses in the Statenkwartier "seems to score better than the rest".

- 10 Do you share their conclusion?
    - a. Yes
    - b. No
    - c. I can not or do not want to choose
  - 11 If no, why not? .....
- Regardless of the DWA conclusion, your preference may differ.
- 12 Which of the following scenarios do you prefer for your own home?
    - a. Individual solution, all-electric with a heat pump;
    - b. Collective solution, district heating by the neighborhood;
    - c. Renewable gasses;
    - d. Wait, and decide later;
    - e. I can not / do not want to choose from the above four options.
  - 13 Which consideration(s) most effect(s) your preference?  
.....

### Willingness to participate / invest in a heat network

The outcome of this survey is of course not yet clear. If the outcome is that the neighborhood prefers district heating, it is important to know whether residents of the Statenkwartier support setting up a cooperative. This cooperative takes a share in the district heating. In this cooperative residents can join forces, e.g. to limit the costs of heating as much as possible.

- 14 It is important for the municipality and for companies that are considering investing in a possible heating network to have an estimate of the possible number of connections in the neighborhood. Do you intend to connect your home to a district heating network to be constructed with the support of local residents? Your final decision will of course depend on the exact offer, in terms of sustainability, costs, etc.
  - a. Yes, I intend to connect my home.
  - b. No, I have no intention to connect my home.
  - c. I can not or do not want to choose
- 15 If you get the opportunity to invest in a district heating network in our neighborhood, which gives residents more influence and a lower price, would you consider participating? Again: filling out this poll is in no way legally binding and does not create any obligations.
  - a. Yes, but only if the risk is zero; I would then accept a low return (around 1%). If so I express the intention to co-invest in a joint district heating network for an amount of € 1,000 / € 5,000 / € 10,000 / € 30,000 / > € 30,000, whereby my final decision depends on return, interest, risk, guarantees, duration, etc.
  - b. Yes, but only if the risk is limited and the expected return is 5%. If so I express the intention to co-invest in a joint district heating network for an amount of € 1,000 / € 5,000 / € 10,000 / € 30,000 / > € 30,000, whereby my final decision depends on return, interest, risk, guarantees, duration, etc.
  - c. No, I will not invest in a district heating network
  - d. Don't know / I can't / won't answer

### Background features

- 16 What kind of house do you live in?
  - a. Family home ('Herenhuis')
  - b. Upstairs / downstairs apartment / apartment
  - c. Other, .....
- 17 What is the size of your home? (in m<sup>2</sup> of floor space)
  - a. ....
  - b. Don't know
- 18 What is your age?
  - a. < 20
  - b. 20-35
  - c. 35-50
  - d. 50-65
  - e. 65-80
  - f. > 80
  - g. no answer
- 19 How many people does your household consist of?
  - a. 1
  - b. 2
  - c. 3
  - d. 4 or more
  - e. no answer
- 20 What is your household gross income?
  - a. € 0 - 40.000
  - b. € 40.000-80.000
  - c. > € 80.000
  - d. No answer
- 21 Finally, regarding the transition to clean energy in the Statenkwartier. If you want to share something with us, such as concerns or wishes, you can do it here: .....

Please fill in before  
October 19th

# Initiative Statenwarmte

The resident group Statenwarmte is an initiative for and by local residents. Our goal is to involve the neighborhood as much as possible and to prepare for the transition to clean energy.

In addition, Statenwarmte wants to make sure our voice is being heard when decisions are being made by the municipality. We are developing a plan for this in collaboration with the municipality: the district energy plan. We have spoken to as many residents as possible since the summer of 2018. Meetings, interviews, surveys and coffee table discussions were organized. By doing this we tried to find out what neighborhood residents consider important in the transition to clean energy, or the 'Energietransitie'. These are the most frequently heard points:

- Participation and influence by the residents of the Statenkwartier; they want to be able to help determine the alternative for natural gas so that the solution suits their homes and they can prepare for it.
- Costs, affordability; residents do not want to pay too much.
- Sustainability.

In 2019, Statenwarmte commissioned technical research agency DWA to investigate which different forms of clean energy would be suitable for our neighborhood. Particular attention was paid to the technical and financial feasibility for the homes and owners. The municipality funded this research. The outcome was presented in March 2020 in the presence of 200 residents and alderman Liesbeth van Tongeren (more information about this research can be found at: [www.statenwarmte.nl](http://www.statenwarmte.nl)). In the following survey, we present the results of the DWA research so that we can hear from you what you think about the various clean energy scenarios. We organize this survey in close collaboration with the municipality.