

- We would kindly like to invite each municipality in the Netherlands to spend 15min - 30min to fill out this survey form. (You may skip some questions in case they are not applicable to your municipality.)
- If you are more comfortable answering in Dutch, [feel free to write in Dutch](#).
- This survey was designed to identify the current challenges and opportunities that each municipality is facing in implementing Decarbonising Buildings measures on existing residential buildings. **The result of the survey will be shared in the form of the Organisation for Economic Co-operation and Development (OECD) Case Study on the Netherlands.** The survey result will help each municipality to speed-up and scale up the building decarbonisation process by assessing the status of both subnational and national policies.
- This questionnaire consists of [1.General information of municipalities \(6Q\)](#), [2.Heat Transition Vision \(9Q\)](#), [3.Natural gas-free districts \(0-13Q\)](#), [4. Individual approaches for retrofits \(3Q\)](#) and [5.Multi-level Governance \(3Q\)](#).

1. General Information [This section is for ALL municipalities]

<i>Name</i>		<i>Email</i>	
<i>Municipality</i>		<i>Job Title</i>	

1) How much budget (subsidies) is spent in 2021 for decarbonising residential buildings in your municipality? (Insulation, hybrid heat pump and district heating appliances , etc.) ?

2) Could you provide the number of municipality civil servants currently working in building decarbonisation? Also, please provide the number of civil servants that you would need for effective building decarbonisation process in your municipality.

Number of municipality civil servants in the built environment	Ideal number of municipality civil servants in the built environment

3). (Ownership) what is the share of social housing in the entire housing stock? (e.g. 30%)

5) How many residential buildings are subsidised to be gas-free in your municipality ?

6) What is your municipality's approach on energy poverty?

(Please select all applicable options)

- 1. Support financially to lower energy bills to low-income households
- 2. Provide the service of energy coach who can visit households and gives advice on energy savings.
- 3. Support with subsidies in improving the energy efficiency of the home (e.g. insulation) to low-income households
- 4. Provide energy-efficient appliances to low-income households
- 5. Others

For further information or questions, please contact Takeshi.miyamori@oecd.org, Jisoo.yoon@oecd.org

6-1) If you have selected 5. 'Others' please provide more information below.

7) Does your municipality provide training for the sustainable built environment jobs (excluding volunteers)?

EX) In Southern Amsterdam, the municipality collaborated with ROC van Amsterdam to provide trainings and certificates for building decarbonisation related professions such as PV and (hybrid) heat pump installers, etc.

1. Yes

2. No

7-1) If you have selected 1. 'Yes' please provide more information below.

Area-Oriented Approaches

2. Heat Transition Vision (Transitievisie Warmte) and Implementation Plan [This section is for ALL municipalities]

1) Please select all the elements that are included in the municipality's Heat Transition Vision.

[Quantitative target]

1. CO2 emissions reduction quantitative target [e.g. # Mton by 2030]

2. Number of Insulation quantitative target [e.g. # of homes by 2030]

3. Minimum Energy Labels (Energy Performance Certificates) for homes and buildings [e.g. EPC level C]

4. Number of Heat pumps (including hybrid heat pumps) quantitative target [e.g. # of homes by 2030]

5. Number of district heating districts/residential buildings quantitative target [e.g. # of homes by 2030]

6. Number of renewable energy sources (e.g. PV) quantitative target [e.g. # of PVs by 2030]

7. Other quantitative target

1-1) If you have selected 7. 'Other quantitative target' please provide more information below.

2) Please select all the data/map that are included in the Heat Transition Vision. **[Spatial strategies and plan]**

1. District-by-district sustainable alternatives (Whole Municipality, Part of municipality)

2. District-by-district plan on decarbonising the city (Whole Municipality, Part of municipality)

3. Other Map

2-1) If you have selected 3. 'Other Map' please provide more information below.

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5) What data tools / instruments were helpful in drafting the Heat Transition Vision? (Choose multiple options)

- 1. [START Analysis](#) developed by PBL, distributed on website [Expertisecentrumwarmte.nl](#)
- 2. [DEGO map](#) developed by VNG
- 3. [Improve your house](#) website
- 4. Locally developed instruments (e.g. [WAT Kaart](#) Rotterdam)
- 5. Others

5-1) If you have selected 4. 'locally developed instruments' please provide more information below.

5-2) If you have selected 5. 'Others' please provide more information below.

6) What kind of data tools / instruments would you like the National Government to provide?

- 1. A data instrument that indicates locally available district heating facilities
- 2. An instrument to help raise public awareness on heating transition / energy transition
- 3. A data instrument of retrofit cost analysis
- 4. A software that helps simulating different home renovation models
- 5. Others

6-1) If you have selected 5. 'Others' please provide more information below.

7) Did your municipality develop specific implementation plans (uitvoeringsplannen op wijkniveau) for the Heat Transition Vision?

- 1. Implementation Plan completed
- 2. Under Preparation
- 3. No plan

7-1) If you selected '1. Implementation Plan completed' to the previous question, could you provide the website?

7-2) If you selected '1. Implementation Plan completed' to the previous question, what enabled developing the local implementation plans?

- 1. High level of motivation by the citizens (please specify :)
- 2. Local financial incentives (please specify :)
- 3. Strong will of local government
- 4. Local climate / environment / energy / housing / technology experts
- 5. National financial incentives
- 6. Others

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7-2-1) If you have selected 6. 'Others' please provide more information below.

7-2-2) If you selected 'no plan' to the question 7), what are the **main bottleneck**?

(Please select number for each option based on the importance. 1: The biggest bottleneck, 2: the second biggest bottleneck.. 6: the smallest bottleneck

Lack of Finance (1, 2, 3, 4, 5, 6)

Lack of staff (1, 2, 3, 4, 5, 6)

Lack of awareness among citizens (1, 2, 3, 4, 5, 6)

Lack of technical support (1, 2, 3, 4, 5, 6)

Lack of regulations (1, 2, 3, 4, 5, 6)

Others (1, 2, 3, 4, 5, 6)

7-2-2-1) If you have selected 6. 'Others' please provide more information below.

8) Do you have monitoring indicators that can track the implementation of progress?

(Please select all applicable options)

- 1. Quantitative indicators for carbon emissions reduction target
- 2. Quantitative indicators for the number of new (hybrid) heat pump installation
- 3. Quantitative indicators for the number of residential buildings connected to district heating
- 4. Quantitative indicators for the number of new PVs installation
- 5. Quantitative indicators for Insulation measures (e.g. R-Value, Energy Label, EPC, etc.)
- 6. Others

8-1) If you have selected 6. 'Others' please provide more information below.

9) Does your municipality have at least more than one district (neighbourhood) that has started the natural gas-free measures??

- 1. Yes
- 2. No

9-1) If you have selected 'Yes' to the previous question, please go to the next section of the survey below "3. Natural Gas Free Districts"

9-2) If you have selected 'No' to the previous question, what are the bottlenecks to start gas-free district pilot projects?

(Please select number for each option based on the importance. 1: The biggest bottleneck, 2: the second biggest bottleneck.. 6: the smallest bottleneck

Lack of Finance (1, 2, 3, 4, 5, 6)

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Lack of staff (1, 2, 3, 4, 5, 6)

Lack of awareness among citizens (1, 2, 3, 4, 5, 6)

Lack of technical support (1, 2, 3, 4, 5, 6)

Natu (1, 2, 3, 4, 5, 6)

Others (1, 2, 3, 4, 5, 6)

3. Natural Gas Free Districts [both PAW and non-PAW gas free districts]

For PAW municipalities, please answer section 3.A and 3.B

For non-PAW municipalities, please answer section 3O

3. A Programma Aardgasvrije Wijken (PAW)

1) How did you select the pilot district for PAW? What makes this district different from other districts in your municipality?

- 1. Available local heat source (e.g. residual heat from industry)
- 2. Social housing corporation initiative
- 3. Local inhabitants' initiative
- 4. Socio-economically marginalised neighbourhood
- 5. Others

1-1) If you have selected 5. 'Others' please provide more information below.

2) What is the biggest lesson you learned from participating in PAW pilot projects so far?

- 1. Legal framework (such as the New Heat Act) should be strengthened.
- 2. Acceleration of citizen engagements should be improved.
- 3. Local staff for coordinating the pilot project should be strengthened.
- 4. More financing is required, and the financing channels should be diversified.
- 5. Others

2-1) If you have selected 5. 'Others' please provide more information below.

3) What are the effective supports from the National Government you make us of?

- 1. Funds from the national government
- 2. Information on PAW website
- 3. Knowledge Sharing Platform (KLP)
- 4. Data Center (ECW) (e.g. START Analysis)
- 5. Capacity Building Support
- 6. Other

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3-1) If you have selected 6. 'Others' please provide more information below.

4) National government is planning a next step, National Program for Local Heat Transition (NPLW). Is your municipality ready to upscale your pilot natural gas free district to municipality level?

1. Yes
 2. No

4-1) If you have selected 'No' to the previous question, what are the main bottlenecks? (Please select (no more than) three options)

1. Lack of Finance
 2. Lack of skilled labour in the built environment
 3. Lack of awareness among or support from citizens
 4. Lack of technical support
 5. Lack of regulations
 6. Others

4-1-1) If you have selected 6. 'Others' please provide more information below.

5) In what budget items, did you allocate the most of the national government's funding for PAW pilot project?

(Please select three options)

1. Local coordinator salary
 2. Local energy consultants' salary for technical, financial and juridical advice
 3. Infrastructure cost (District heating etc.)
 4. Installation cost for connecting each individual residential buildings with district heating network
 5. Installation cost for (hybrid) heat pumps
 6. Installation cost for insulation
 7. Costs for communication and participation activities
 8. Funding local initiatives to facilitate PAW pilot project
 9. Others

5-1) If you have selected 9. 'Others' please provide more information below.

3. B For both PAW and non-PAW district

1) When did you start planning the natural-gas-free district program (both PAW and non-PAW)?

For further information or questions, please contact Takeshi.miyamori@oecd.org, Jisoo.yoon@oecd.org

2) What were the factors that enabled the natural-gas-free district?

- 1. National financial incentives (please specify :)
- 2. Local financial incentives (please specify :)
- 3. Strong will of local government
- 4. Local climate / environment / energy / housing / technology experts
- 5. High level of citizen engagement / citizens' initiatives
- 6. Others

2-1) If you have selected 6. 'Others' please provide more information below.

3) What are the main bottlenecks?

(Please select all applicable options)

- 1. Lack of Finance
- 2. Lack of skilled labour in the built environment
- 3. Lack of citizens' engagement
- 4. Lack of technical support
- 5. Lack of regulations
- 6. Others

3-1) If you have selected 6. 'Others' please provide more information below.

4) What kind of communication and participation strategy did you use?

- 1. Organise meetings (e.g. presentation from the city officials) to inform the strategy and plan of the municipality.
- 2. Disseminate brochures (e.g. Choice map from Rotterdam) to inform gas-free alternatives to residents
- 3. Build a decarbonised model house to help residents visualise the implementation of building decarbonisation (e.g. decarbonised model house in Schiedam)
- 4. Share personal story of a resident who is working on insulation or sustainable heat on local news (magazines, websites, etc.)
- 5. Organise small meetings (e.g. kitchen table talks, living room talks) to inform and discuss the benefits of building decarbonisation
- 6. Standing booth for discussion (e.g. in front of supermarket)
- 7. Visits to residents by the local energy coach
- 8. Door to door visits to residents in order to listen to their idea/wish
- 9. Set up a network of residents with housing block ambassador as liaison person
- 10. Set up a group of citizens that provide advice to other residents
- 11. Others

4-1) If you have selected 11. 'Others' please provide more information below.

4-2) Which communication strategy was the most effective?

- 1. Organise meetings (e.g. presentation from the city officials) to inform the strategy and plan of the municipality.
- 2. Disseminate brochures (e.g. Choice map from Rotterdam) to inform gas-free alternatives to residents
- 3. Build a decarbonised model house to help residents visualise the implementation of building decarbonisation (e.g. decarbonised model house in Schiedam)
- 4. Share personal story of a resident who is working on insulation or sustainable heat on local news (magazines, websites, etc.)
- 5. Organise small meetings (e.g. kitchen table talks, living room talks) to inform and discuss the benefits of building decarbonisation
- 6. Standing booth for discussion (e.g. in front of supermarket)
- 7. Visits to residents by the local energy coach
- 8. Door to door visits to residents in order to listen to their idea/wish
- 9. Set up a network of residents with housing block ambassador as liaison person
- 10. Others

4-2-1) If you have selected 11. 'Others' please provide more information below.

5) How many residential buildings are gas-free as consequence of the natural-gas-free program in your district?

(Please fill out multiple options if needed)

- 1. With district heating, () of residential buildings are gas free.
- 2. With (hybrid) heat-pumps, () of residential buildings are gas free.
- 3. With solar panels (PVs), () of residential buildings are gas free.
- 4. With solid biomass (wood chips or pallets), () of residential buildings are gas free.
- 7. Others

6) How many residential buildings have received insulation subsidy during and after this natural-gas-free program in your district?

7) What kind of co-benefits were most appealing to residents to participate in gas-free districts?

- 1. Energy Saving contributing to global environment and natural resources
- 2. Lower energy bill
- 3. Residents' health with insulation
- 4. Safety of cooking
- 5. Collaborating with fellow citizens

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6. More comfortable indoor climate

7. Others

7-1) If you have selected 5. 'Others' please provide more information below.

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8) Do you think area-oriented approach (wijk aanpak) is useful for insulation, (hybrid) heat pumps and PVs? Could you specify your opinion?

If Yes, please specify:

If No, please specify:

4. Individual approaches for retrofits [This section is for ALL municipalities]

Individual Approaches

1) Recently, the national government announced its plan on "National Insulation Programme" which aims to insulate 2.5 million homes by 2030. What are your additional local approaches to accelerate the level of insulation of the local residential buildings?

1. Provide additional local financial incentives (e.g. the Rotterdam Energy Transition Fund) for citizens

2. Strengthen local communication with citizens to raise awareness

3. Others

1-1) If you have selected 3. 'Others' please provide more information below.

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2) The national government announced its plan on "Programme for Hybrid Heat pumps" which aims to install 1 million hybrid heat pumps in existing buildings until 2030. What are your local approaches to accelerate the installation of hybrid heat pumps?

1. Provide additional local financial incentives (e.g. local green loan) for citizens

2. Strengthen local communication with citizens to raise awareness

3. Others

2-1) If you have selected 3. 'Others' please provide more information below.

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3) In the Regional Energy Strategy (RES), the Netherlands are divided into 30 energy regions that collectively have to produce 35 TWh of renewable electricity from wind turbines and photovoltaics by 2030. What are your additional local approaches to accelerate the production of renewable electricity?

1. Provide additional local financial incentives (e.g. local green loan) for citizens

2. Strengthen local communication with citizens to raise awareness

3. Others

3-1) If you have selected 3. 'Others' please provide more information below.

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5. Multi-Level Governance

1) What kind of support do you need the most from the national government in local heat transition?

(Please select all applicable options)

- 1. Change in regulation
- 2. Financial support
- 3. Raising citizens' awareness support
- 4. Investment in innovative technologies
- 5. Investment in skills training
- 6. Others

1-1) If you have selected 1. 'Change in regulations' please specify below what kind of regulation should be changed and how.

1-2) If you have selected 6. 'Others' please provide more information below.

2) What is the biggest benefit of area-oriented (place-based) approaches such as natural-gas free neighbourhoods projects n decarbonising building measures?

- 1. Responding to local citizens' needs
- 2. Creating business for local SMEs
- 3. Collective reduction on energy bill as a measure against energy poverty
- 4. Improving health of local residents with insulation
- 5. Cleaner and sustainable environment
- 6. Tackling the social issues in the district in a comprehensive approach
- 7. Others

2-1) If you have selected 7. 'Others' please provide more information below.

3) What are the enabling factors for municipalities to implement area-oriented (place-based) policies on decarbonising buildings? What are the key elements for localising the national government goals (e.g. natural gas free, insulation, etc.)

(Please select three options with hierarchical importance - > this will be done through MS form)

- 1. Local building data analysis (since buildings are different from other districts)
- 2. Communication strategies with citizens/residents (since citizens' needs/wishes are different from other districts)

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- 3. Local network (Social capital) with various stakeholders (e.g. citizens' group, non-profit organisation, social housing company, local energy supplier, local constructor, local university/Institute)
- 4. Financial simulation tools for individual district/residents which is locally customised (since financial situation differs for each individuals)
- 5. Technical support from the national government, Province or Academia (since technical issues differ within the districts)
- 6. Legislation to empower municipalities (since Municipalities know about local situation better than the National government)
- 7. Enough Funds
- 8. Others

3-1) If you have selected 7. 'Enough Funds' please provide information about the usage of funds below. (e.g. hire consultants, etc.)

3-2) If you have selected 8. 'Others' please provide more information below.