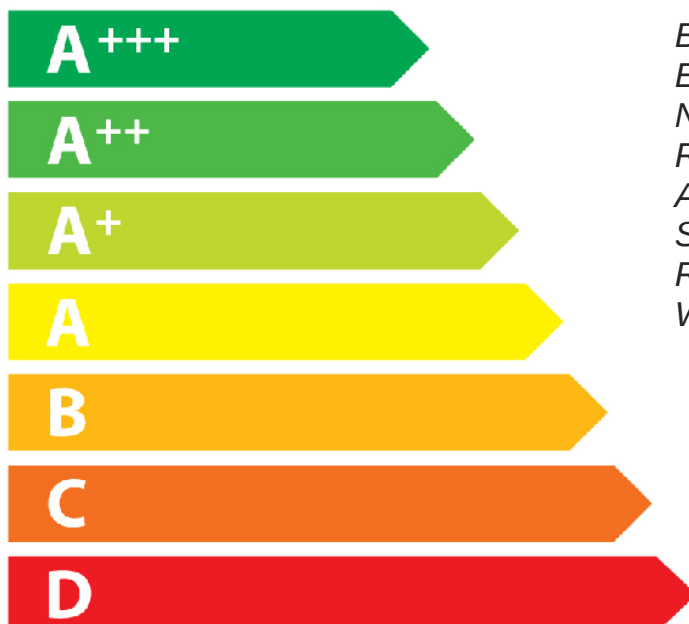


ENERGY LABEL POLICY FOR OFFICE BUILDINGS

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August 2022.*

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Word count: 16.922

Summary

In the European Union, residential buildings and utility buildings are responsible for 36% of the total CO₂ emissions (EU, 2018). In order to reduce this CO₂ emission percentage, this sector will need to improve their energy efficiency (EU, 2018). As a result, the European Union introduced multiple directives which stimulated its Member States to introduce energy policies (EU, 2012; EU, 2018) which consequently led to the introduction of the energy label policy in the Netherlands (Stangenberg et al., 2020). The energy label gives the owner of the building an indication of the energy efficiency, based on the the amount of consumed primary fossil energy (in kilowatt-hour, per square meter, per year). The label ranges from G (the least energy efficient) to A+++++ (the most energy efficient). At first, this policy only required a building to possess an energy label at the time of being bought, sold or rented. However, this will change for office buildings. In the Bouwbesluit (2012), the Dutch government oblige all office owners to be in possession of energy label C or higher before January 1st of 2023. However, the process of improving and adopting energy labels has been developing slower than expected. Research showed that only 40% of the Dutch office owners have met the set standards in 2021 (RVO, 2021b).

As a result, the objective of this study is to determine which factors and actors influence the process of improvement and adoption of energy labels for relatively small office owners (between 100 and 1.000 m²) and how the current Dutch energy label policy can be improved. A better comprehension of these influential factors helps to understand how this problem originated and consequently helps understand how future policies can improve the influence of other external stakeholders to improve this process.

The theoretical framework used in this study is based on a model developed by Green (1974). This model consists of predisposing factors, enabling factors, and reinforcing factors. The predisposing factors consist of awareness, knowledge and organisational norms. The enabling factors consist of organisational behaviour and financial resources. Both the predisposing and enabling factors are linked to the office owners. The reinforcing factors, which are linked to the external stakeholders (energy advisor, government and municipality), consist of regulation, subsidies and advice.

In order to obtain necessary data to answer the main research question, this study will perform a literature study and conduct multiple interviews. The literature study is chosen to

determine which factors and actors influence this process and to analyse the current energy label policy. In order to test the determined factors and actors in practice, a total of six interview will be conducted. Four of those will be conducted with office owners, as the most important and influential stakeholder within this process. Two out of these four interviews will be conducted with owners that use the office themselves (Companies), and two with owners that do not use the building themselves (Landlords). This has been done to identify possible differences and answer research question four. The final two interviews will be held with an energy advisor and the municipality to get a complete picture of the process and to determine the influence of all stakeholders.

The region in which this study was conducted is North-Limburg. The choice for this region has been consciously made for several reasons. The first and most important reason is because the energy label improvement and adoption amongst office owners is lacking (EIB, 2021). Furthermore, all relevant stakeholders in the process of improving and adopting energy labels are present in this region (office owners, governmental stakeholders and energy advisors). The third and final one being the fact that one governmental stakeholder is responsible for the information provision and regulation of this policy. Consequently, it allows this research to depict a comprehensive image with regard to the influence of the governmental stakeholders. This improves the validity of this research and the quality of the advice.

The results of this study indicate that the reinforcing factors had the biggest influence on the process of improving and adopting energy labels. Especially 'knowledge' and 'awareness' turned out to be influential. All respondents had significant knowledge about energy efficiency measures (EEM), as a result each of them have taken at least one EEM. Three of the office owners who were aware of the legislation had consequently obtained an energy label or were in the process of obtaining an energy label.

The enabling factors resulted in major differences between the Companies and Landlords. The Companies experienced two drivers, which the Landlords did not experience. This ultimately led to the conclusion that in this research the Landlords experienced more difficulties in the process of improving and adopting energy labels. The reinforcing factors (regulation, subsidies, advice) turned out to be less influential drivers than expected. As a result, the absence of the reinforcing factors are considered to explain the origin of the research problem.

Only the advice from the energy advisor appeared to significantly drive the office owner to improve and adopt their energy label. This emphasizes the importance and influence of the energy advisor in this process. The two drivers provided by the governmental stakeholder, subsidies and regulation, should have been present and influential. Results show that this was not the case for this research.

Therefore, this research argues that the biggest policy improvement can be made around the governmental stakeholders. Municipalities and other competent authorities should have more leeway in order to better cope with the workload. As a result, these governmental stakeholders will have the possibility to communicate with office owners in an earlier stage and will to regulate the energy label policy.

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1. Introduction

1.1 Background

Today, climate change is one of the biggest environmental problems in the world (McCarty, 2001; Parmesan & Yohe, 2003; Walther et al., 2002). An important measure to slow down the current global trend of climate change is the shift from fossil-based energy production and consumption to renewable energy production and consumption, otherwise known as the energy transition (Solomon & Krishna, 2011). This is a form of climate mitigation which is of great importance for the European Union (European Commission, 2011). This importance is shown in the Energy Roadmap 2050, in which the EU set itself the goal of reducing 80 to 95% of the greenhouse gas emissions in 2050 compared to the 1990 levels (European Commission, 2011). According to research from Economidou et al. (2020), 80% of all the European greenhouse gas emissions emitted in the process of energy production and use. This explains the European focus on energy efficiency to achieve this goal (European Commission, 2011).

In order to achieve the energy and environmental goals from the European Union, it is crucial to improve the energy efficiency of the building stock. This sector consists of residential and non-residential buildings, which are combined responsible for approximately 36% of the total CO₂ emissions in the European Union (EU, 2018). In order to improve the energy efficiency of the building stock, the European Union has been adopting energy efficiency policy since the 1970's (Tsemekidi-Tzeiranaki et al., 2020). These policies focus on encouraging existing and new building owners to take energy efficiency measures (EEMs) (Tsemekidi-Tzeiranaki et al., 2020). Examples of EEMs are the change of halogen lights to LED lights and the application or improvement of insulation (RVO, 2018). An important framework regarding energy efficiency policy has been introduced in the Energy Performance of Buildings Directives in 2012 (EU, 2012), which was revised in 2018 (EU, 2018). This directive and framework helped promote policies which informed citizens about energy efficiency (EU, 2012; EU, 2018).

An example of a method which informs the owner of building about their energy efficiency is an Energy Performance Certificate (EPC) (Olaussen et al., 2017). This certificate consists of two parts (RVO, 2018). The first part entails the energy efficiency rating of the building, which ranges from A (energy efficient) to G (energy inefficient). The second part consists of an advice to improve the energy efficiency of the building.

As a member state of the EU, the Netherlands introduced a policy which concluded the use of EPC's for the first time in 2008 (Stangenberg et al., 2020). This policy formally required all sold, rented or built properties to possess an energy label. However, the adoption rate of energy labels decreased over time because of the relatively high costs per label (which is variable and depends on the energy advisor) and the fact that office owners that failed to comply with this standard were not penalized (Brounen & Kok, 2011). In 2014, the old energy label system was replaced with a new system that reduced the costs and increased the adoption rate. Despite this positive effect, the system turned out to be fraud sensitive leading to the introduction of the energy label system in 2021 (Stangenberg et al., 2020). This system (NTA 8800) obligates the involvement of an energy advisor that is authorised to hand out an energy label, making this system less fraud sensitive (Stangenberg et al., 2020).

1.2 Research problem

Other than the obligation to possess an energy label when selling, renting or constructing a property, building owners do not require to have this label at all times. However, this is going to change quickly. Office buildings will be the first building type that needs to be in possession of an energy label at all time. In the Bouwbesluit 2012, the Dutch government obligates offices to obtain energy label C or higher before 2023 (Rijksoverheid, 2012). However, results from the RVO report show that the improvement and adoption rate of energy labels have been lacking (RVO, 2021b). Around 60% of the offices did not possess energy label C or higher in 2021. From that percentage, the majority consists of the relatively small offices (surface between 100 and 1000 m²). In order to find out the reason behind the lower than expected percentage of improvement and adoption of energy labels, this research will try to identify the most important factors that influence the adoption- and improvement rate of energy labels for small offices.

The region North-Limburg has been chosen as the region for this research because of the presence of all the relevant actors (office owners, governmental stakeholders and energy advisors) within this process (tasks, influence and importance of these stakeholders will be further explained in chapter 2; RVO, 2022). Besides this, between 30 to 40 percent of the offices in the region North-Limburg were not in the possession of energy label C or higher (EIB, 2021). This emphasizes that the national problem (of offices not being in possession of energy label C or higher) also occurs in the region North-Limburg. As a result, possible outcomes can be generalised to a certain degree to other regions in The Netherlands. The

third and final reason is the fact that information provision and regulation in the entire region is done by one governmental stakeholder: The Regionale Uitvoeringsdienst (RUD) Limburg-Noord (RUD, 2022). Therefore, any policy advice with regard to the municipalities within this region will influence all researched office owners.

The region North-Limburg consists of the municipalities: Mook en Middelaar, Genneep, Bergen, Venray, Horst aan de Maas, Venlo, Peel en Maas, Nederweert, Weert, Leudal, Maasgouw, Echt/Susteren, Roerdalen, Roermond and Beesel (Partners, n.d.). Future mentions of North-Limburg refer to all fifteen named municipalities.

1.3 Societal relevance

This research will examine the existing understanding and influence of the relevant factors that affect energy label improvements for small offices in North-Limburg. A more extensive comprehension of these factors play a crucial part in the development of a more efficient energy policy. The deadline from the Bouwbesluit 2012 policy nears, which oblige office owners to obtain an energy label C or higher (Rijksoverheid, 2012). Ten years after the introduction of this policy, still 60% of the Dutch offices do not own such a label (RVO, 2021). With months to spare, it is imaginable that not all Dutch office buildings will meet the expectations before the deadline, which might result in repercussions for the office owners. These repercussions could consist of a warning, a fine or in the worst case, the closure of the office (RVO, 2018). Moreover, the offices that lack appropriate labels will produce more CO₂ emissions and more energy costs than energy neutral offices (Olaussen et al., 2017). This research will also focus on establishing a comprehensive overview about the relevant incentives and deterrents regarding energy label requests. When a more well-known comprehension is established about the factors relevant for the energy label adoption and improvement, policymakers can improve their impact on the energy efficiency of buildings (Shen et al., 2016). This may refine the climate monitoring process, which contributes to more detailed and up to date information about the energy efficiency in the building stock (Goulden et al., 2020). As a result, the Dutch government can better estimate the need of improving or developing energy policy which aids to reach national environmental goals. When improved, it might then lead to more energy neutral office buildings in the Netherlands, thus further declining national CO₂ emissions. Subsequently, these improvements will contribute to the energy independence and work environment of offices in this region (EU, 2018). Looking at this from a macro scale perspective, improvement of the energy efficiency of offices in the Netherlands will contribute to the European and global

environmental goals, which has been set to reduce 80 to 95% of the greenhouse gas emissions in 2050 (European Commission, 2011).

1.4 Scientific relevance

Policies like the energy label policy are designed to reduce the existing gap between the current or expected future energy use and the optimal current or future energy use, which is also known as the “energy-efficiency gap” (Jaffe & Stavins, 1994). The way in which optimal behaviour is defined, determines the magnitude of this gap (Jaffe & Stavins, 1994). In this research, the optimal energy use is defined as energy label C, in other words annual consumption of 225,00 kWh/m². A set of barriers prevents the office owner to reach energy label C, which explains the existence of this gap (Jaffe & Stavins, 1994). In order to reduce this gap, the government can apply energy efficiency drivers. This can be informational measures (e.g. guidelines and energy audits), economic measures (e.g. subsidies) and regulatory measures (e.g. standards) (Blomqvist et al., 2022). The energy label policy introduced by the Dutch government can be seen as a regulatory measure to stimulate office owners to take energy efficiency measures.

The importance of energy labelling as a policy instrument to improve the energy efficiency of buildings and reduce greenhouse gas emissions within this sector is explained in various scientific research (Boza-Kiss et al., 2013; Cheong-Hoon & Sang-Hoon, 2012). An important factor that contributes to this is the fact that buyers of residential and non-residential buildings value the existence of an energy label as an attempt of differentiating themselves from others in that market (Cluett & Amann, 2013). It can therefore stimulate the seller of the building to improve the energy efficiency (Cluett & Amann, 2013). However, with the new policy in the Netherlands that obligates owners of office buildings to own an energy label C or higher (Rijksoverheid, 2012), this factor becomes less influential. This research will focus on the factors (drivers and barriers) that influence the adoption and improvement of energy labels in the region of North-Limburg and therefore explain the current energy-efficiency gap. Furthermore, it will substantiate existing literature regarding this topic.

As the value of the presence of an energy label decreases with the upcoming mandated policy, this research will also provide new insights of the more isolated influence of the relevant factors. Lastly, there is a small but growing body of research available on national mandated regulations regarding energy labels (Gabe, 2016). This research aims to

contribute to this literature by investigating the current energy efficiency gap, despite the mandated regulation.

1.5 Research objective and research questions

The research objective is to gain a better understanding of the factors that influence the adoption and improvement of energy labels for relatively small offices in the region North-Limburg. These findings can improve the efficiency of energy policy in this region, resulting in a potential acceleration of the energy transition and achieving climate goals. Based on these findings, future research in other Dutch regions can result in an improvement of their energy policy. This may consequently result in a national acceleration of the energy transition. Based on this objective, the following main research question and sub questions have been defined.

Main research question

Which factors influence the adoption and improvement of energy labels for relatively small offices in the region North-Limburg and how can this be implemented into the current energy label policy?

Sub questions

1. Which actors and factors that influence the adoption and improvement of energy labels for offices are being mentioned in policy documents and published in scientific research?
2. Which factors influence the adoption and improvement of energy labels, for relatively small office buildings in North-Limburg?
3. In which way influence the energy advisor and governmental stakeholders the adoption and improvement of energy labels for relatively small office buildings in North-Limburg?
4. In which way do the influential factors and actors within this process differ between office owners that use the building in comparison to office owners that do not use the building?
5. In which way can the current energy label policy be improved?

2.Theory

In order to determine which factors and actors influence the adoption and improvement of energy labels for relatively small offices, this chapter provides a policy analysis, stakeholder analysis theoretical framework and literature study to provide information about the defined factors.

2.1 Policy analysis

In order to reflect and potentially improve the energy label policy with regard to offices, it is important to analyse the legislation. This policy analysis will focus on barriers for the office owners, instruments to lower these barriers and the responsible actors, that are described in national and regional policy documents. This data has been transformed into the table below and further explained in this chapter.

Barriers	Instruments	Responsible stakeholder
1. Lack of awareness, knowledge and information	Direct and timely communication	Competent authorities (municipalities) in cooperation with the national government
	Regulation	
2. Expected limited ability to regulate <i>I. Pre-sorting on not regulating</i>	Direct and timely communication	Competent authorities (municipalities) in cooperation with the national government
	Data support municipalities	
<i>II. Limited stimulation to regulate</i>	Agreements with regard to regulation between national government and municipalities	Competent authorities (municipalities) in cooperation with the national government
3. Practical difficulties	Direct and timely communication	Competent authorities (municipalities) in cooperation with the national government
4. Financial problems	Cooperation between banks	Banks with possible support from national government

Table 1: Overview policy analysis (EIB, 2021)

2.1.1 Barriers

According to a report from the 'economisch instituut voor de bouw' (EIB, 2021), four major barriers occur in the process of improving and adopting energy labels for office owners.

Awareness, knowledge and information

The first barrier consists of lacking awareness, knowledge and information around the energy label policy. In the interviews which were conducted by the EIB (2021), office owners point out that they are relatively unaware about the legislation itself, the consequences of not meeting the standards and the financial possibilities. Besides specifically influencing the energy label legislation, these barriers also influence the general process of improving the sustainability of office buildings. On top of that, office owners mentioned that sustainability did not occur as a priority (EIB, 2021). As a result, decisions and actions with regard to sustainability are frequently being postponed (EIB, 2021).

Regulation

The second barrier consists of the municipality's (expected) limited ability to regulate this legislation. The report of the EIB (2021) points out that a part of the office owners who are aware of the legislation do not act as a result of their expectation that the municipality will not regulate this legislation. However, the interviews show that most of the office owners will act once they are being stimulated and the implementation date of the legislation is nearing (EIB, 2021).

The interviewed municipalities mentioned to experience limited stimulation to regulate the energy label policy. This mainly results in the dissatisfaction to close offices that contribute to the regional economy and the high costs which are accompanied with regulating this legislation (EIB, 2021). On top of that, municipalities mentioned the lack of a clear overview of the current situation in their municipality, due to limited available information. As a result, municipalities often start regulating the bigger companies which are expected to comply with the set standards themselves (EIB, 2021).

Practical difficulties

The third barrier consists of practical difficulties that could potentially occur in a situation in which the office owner rents out the office building (EIB, 2021). Contractual agreements between the tenant and landlord could negatively affect the process of improving and adopting energy labels (EIB, 2021). For instance, if details about EEMs are not mentioned in the contract, tenants could refuse to pay or collaborate with EEMs. However, the report mentions that this barrier is expected to play a limited factor as a result of the importance for both the tenant as the landlord (EIB, 2021). If the office does not obtain energy label C, the company is forced to halt their office related working activities. As a result, the tenant cannot provide its service and the landlord does not receive its monthly rent.

Financial difficulties

The fourth and final barrier consist of financial difficulties which impact a part of the office owners that possess an energy inefficient building (energy label G or F) on a bad location (EIB, 2021). Therefore, investments to obtain energy label C are relatively high (in comparison to more energy efficient buildings) resulting in difficulties to finance and pass on these investments in the rent price (EIB, 2021). In practice, the EIB expects that this barrier will only occur for a small percentage of the office owners (EIB, 2021).

2.1.2 Drivers and stakeholders

In an attempt to limit the influence of the identified barriers, the EIB (2021) has constructed four interventions. In this paragraph these interventions, the responsible actors and the potential implementation in the region North-Limburg will be described.

Direct and timely communication

In order to accelerate the process of improving and adopting energy labels, direct and timely communication is necessary (EIB, 2021). This communication will preferably be provided by the national government or other competent authorities, as the municipalities are already responsible for the regulation. The information needs to be provided directly to the office owners (EIB, 2021). A suitable method could for instance be a letter. These letters should contain information about the set standards (minimum energy label C) and the consequences of not meeting these standards (warning, fine or closure of the office) (EIB,

2021). On top of that, the EIB (2021) mentions that information regarding possible EEMs could also stimulate office owners to act. This could for instance be done by describing various situations and appropriate EEMs to obtain energy label C.

This intervention will be beneficial to limit the effect of three out of the four identified barriers (awareness, knowledge and information, regulation and practical difficulties) (EIB, 2021). Only the barrier 'financial difficulties' will not be influenced by direct and timely communication.

The 'Regionale Uitvoeringsdienst North-Limburg' (RUD North-Limburg), explained in a report when it is going to inform office owners in the region (RUD, 2021). In July 2022 offices that have not obtained energy label C yet will be identified and contacted. After that, the subsequent identification and communication moment will be in January 2023. These offices will be visited and potentially penalized (RUD, 2021).

(Data) support municipalities for regulation

In order to improve the database of relevant offices (offices that do not possess an energy label or possess energy label D or lower), which is needed to direct and timely communicate with relevant office owners, municipalities need to be supported by national data (EIB, 2021). This data will be provided by the national government or other competent authorities (EIB, 2021).

Agreements with regard to regulation

To further support municipalities with regulating this legislation, the EIB recommends the national government and municipalities to establish agreements with regard to regulation (EIB, 2021). These agreements consist of support from the national government with the development of a regulation strategy (EIB, 2021). As a result, municipalities are more stimulated to regulate the legislation.

Cooperation banks

The final intervention relates to the cooperation of banks (EIB, 2021). In order for office owners with energy inefficient buildings to finance the EEMs needed to obtain energy label

C, they require help from the banks. Banks are able to stimulate EEMs by developing generous regulation (EIB, 2021). As a result, even these office buildings are able to obtain energy label C or higher.

2.2 Improving and adopting energy labels

When researching the influence of relevant factors and actors in the process of improving and adopting energy labels correctly, it is important to understand the process and details of this legislation. According to the RVO (2018), office owners can improve their building in five steps. These steps are visualized in the figure below.



Figure 1: Improving and adopting energy labels

* Energy Performance Advice

** Energy Efficiency Measure

The first step is to check the current energy label of the building, which can range from G to A+++++ (Energie label bij kantoorgebouwen, n.d.). This character is based on the amount of consumed primary fossil energy (total direct energy consumption minus possible energy production) in kilowatt-hour, per square meter, per year. In order to obtain energy label C or higher, the consumed primary fossil energy may not be higher than 225,00 kWh/m²/yr. If the annual consumption is higher than that amount, the building will not meet the standard which is set in 2023. However, it is also possible that the office building is not in possession of any energy label. In both cases, it is important to continue to step two.

This step consists of the office owner contacting an energy advisor to schedule an energy audit. This audit will lead to an energy performance advice (EPA) and in some cases also an energy label. In this EPA, the advisor provides all the necessary information for the office owner to know which EEM is needed to obtain energy label C or higher (RVO, 2018).

After the EPA, the next step is to investigate the financial possibilities. Within this process, the government has a decent amount of influence through the development of subsidies (Bai et al., 2021). These subsidies lower the price of the EEM and lowers the required financial

resources. Office owners can find all information relating available subsidies on the 'Subsidie- en financieringswijzer' from the RVO (RVO, 2021a).

After the financial consideration, the chosen EEM needs to be carried out. This can be done by the office owner itself or by an external party, which depends on the kind of EEM. For instance, the change of halogen lights to LED lights can easily be done by the office owner, whereas the improvement of insulation requires special skills (RVO, 2018).

The final step is to request a new energy label. This will again be done by the energy advisor (RVO, 2018).

2.3 Stakeholder analysis

In order to identify and understand the stakeholders that are related to the energy label policy, this research will make use of stakeholder mapping. Stakeholder mapping helps to summarise and visualise the characteristics of the stakeholders (Yarusov, 2019). As a result, strategies (in this case the energy label policy) can be adjusted in an effort to engage every stakeholder with the required level needed (Ginige et al., 2018). In this research, the stakeholder analysis will be conducted using Mendelow's matrix (Mendelow, 1991). Mendelow (1991) originally established a technique which characterises the stakeholders in terms of power and importance in relation to a business or project. However, this model has also been used on a larger scale in earlier published research (Ginige et al., 2018). This research used Mendelow's matrix on a national scale to visualise the characteristics of the stakeholders related to societal challenges, like clean and efficient energy and resource efficiency (Ginige et al., 2018). This emphasizes the applicability of Mendelow's matrix in the context and scale of this research.

2.3.1 National government

In order to achieve Dutch, European and global climate goals, the Dutch national government obliged office owners to obtain energy label C or higher, before January 1st, 2023 (Rijksoverheid, 2012). For this reason, the national government has a relatively high interest in this process. In addition to that, the influence of the national government on the process of improving and adopting energy labels is also relatively high. This is a result of the two services they provide: online information for office owners and the development of subsidies (RVO, 2018).

2.3.2 Municipality

The main responsibility of the municipality, within the process of improving and adopting energy labels, is to regulate the legislation (RVO, 2018). Offices that do not meet the set standards in 2023 are penalized by the relevant municipality (RVO, 2018). These potential punishments consist of a warning, fine or forced closure of the office (RVO, 2018). This shows that the municipality has a large influence in the process of improving and adopting energy labels. However, the municipality has shown a relatively low interest in this process. This can be explained to the fact that municipalities in general do not benefit from this policy. They will not be rewarded in any form if office owners comply to the standards in 2023. However, if the office owners do not meet the standards in 2023, the municipality will be responsible to warn and eventually penalise the owners. The municipalities could solely benefit from this policy when most offices meet the set standards, resulting in less time and money lost by regulating.

2.3.3 Office owners

The most influential stakeholder within the process of improving the energy efficiency of the office buildings in the Netherlands are the owners of these buildings. Ultimately, obtaining energy label C or higher before January 1st 2023 (the set standard) can exclusively be achieved by the office owner. This can be achieved by means of improving the energy efficiency of their office and obtaining the required energy label. According the RVO (2018), the judicial owner of the office building is responsible for meeting the standards. Consequently, if these standards are not met before the beginning of 2023, the relevant office needs to shut its doors (RVO, 2018). For this reason, office owners also have a relatively high interest in this process.

2.3.4 Energy advisor

The energy advisor is the fourth and final stakeholder within the process of improving and adopting energy labels (RVO, 2018). In terms of influence, the energy advisor has a high influence in this process. With regard to the adoption of energy labels, the energy advisor is the only stakeholder who can provide them for offices. With regard to the improvement of energy labels, the energy advisor gives an advice to office owners, which consists of EEMs to improve the energy label (RVO, 2018). Despite this power, the energy advisor solely depends on the initiative of the office owner. Only after the office owners hires the energy

advisor it starts to play a role in this process. In terms of importance, the legislation has no direct influence on the energy advisor and therefore the importance is low.

2.3.5 Matrix

As a result of the estimated influence and importance of each stakeholder in the process of improving and adopting energy labels, the following expectations are made. The office owner and the national government are expected to be the most important and influential stakeholder. The municipality and the energy advisor will also have a major influence in the process, however they will experience this process as less important than the national government and the office owner. Because of this, both the municipality and the energy advisor are expected to take less initiative than the office owner and the national government. These findings led to the visual representation below:

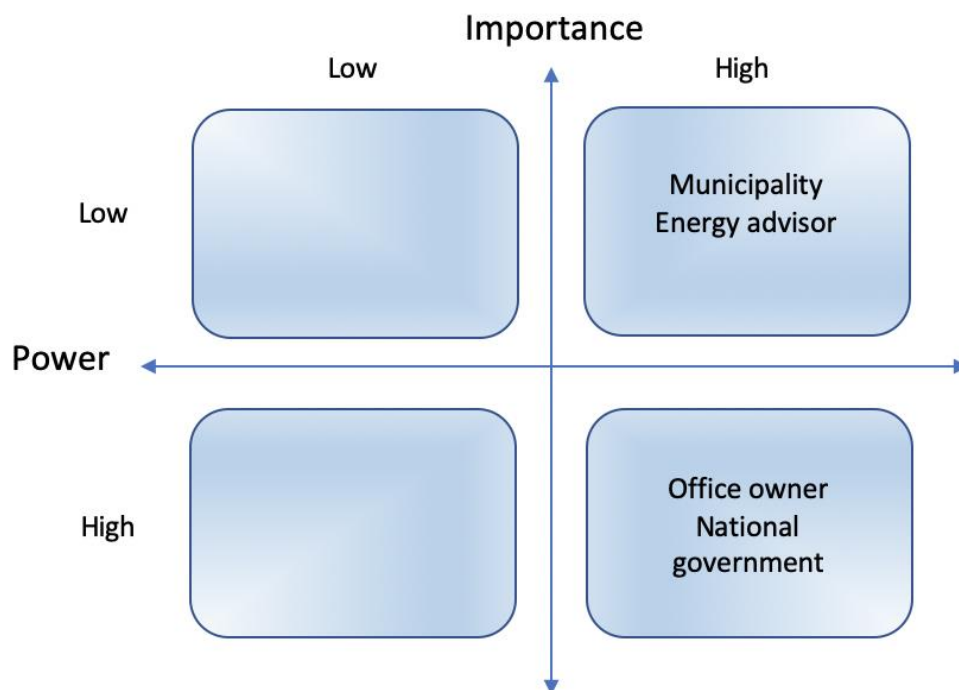


Figure 2: stakeholder analysis (Mendelow, 1991).

2.4 Theoretical model

The first goal of the energy label policy is to stimulate office owners to improve the energy efficiency of their building, which can be done by taking EEMs (RVO, 2018). The second goal is to request and obtain an energy label (RVO, 2018). Both of these aspects are

created through a behavioural change of the office owner. The model of Green (1974) has been used to investigate which factors influence this behavioural change. This model is a theoretical model which assumes that behavioural change is created and affected by three general categories. These categories consist of individual factors. The three general categories and their relevant factors are as followed:

1. *Predisposing factors*: awareness, knowledge, organisational norms
2. *Enabling factors*: financial resources and judicial situation
3. *Reinforcing factors*: advice, subsidies and regulation

The predisposing factors consist of factors related to information (knowledge and awareness) and the organisational norms. These factors form the intention of the behaviour and are influenced by the enabling and reinforcing factors. The importance of the awareness and knowledge of office owners is emphasized in the policy analysis. In this analysis, the EIB (2021) mentions these factors as main barriers in the process of improving and adopting energy labels.

The enabling factors consist of available resources, which influence the predisposing factors. In this research, the enabling factors are financial resources and judicial behaviour. Both of these factors have been mentioned by the EIB (2021) to occur as a barrier for office owners in the process of improving and adopting energy labels.

Together, the predisposing factors and enabling factors form the internal factors which influences the behaviour of the office owner. The reinforcing factors influence both the predisposing factors and the enabling factors. These factors consist of external influences on the behaviour of office owners. In this case, the reinforcing factors consist of advice from an energy advisor, subsidies provided by the national government and regulation executed by the municipality and other competent authorities like the RUD. The factor 'regulation' has been mentioned multiple times in policy documents, whereas the importance of the factors advice and subsidies have been emphasized in scientific research (Fresner et al., 2017; Kontokosta, 2016).

An uncertainty of this theoretical model is the fact that factors of today can evolve into different factors tomorrow. For instance, information which is provided by an energy advisor at this moment of time is considered to be a reinforcing factor. However, after a certain amount of time, this advice becomes knowledge, which is then part of the predisposing

factors. Furthermore, another possible difficulty within this model could occur as a result of factors overlapping, for instance knowledge and awareness. These factors are closely related to each other and have a certain overlap. In an effort to minimize possible difficulties, it is important to give every factor a clear definition.

Although this model was originally developed for health-related behaviours (Green, 1974), the model needs to be applicable for energy-related behaviour in order to answer the main research question *“Which factors influence the adoption and improvement of energy labels for relatively small offices in the region North-Limburg and how can this be implemented into the current energy label policy?”*. However, various research about energy efficient behaviour has been conducted with the application of Greens (1974) model (Egmond et al., 2005; Egmond et al., 2006), showing the potential application of this model.

Besides the theoretical application, the model also needs to be applicable in practice. This requires the model to be adequately able to test the most important factors of all the stakeholders. This is important in order to answer the empirical research questions two, three, four and five. The barriers and instruments that have been mentioned in policy documents (knowledge, awareness, financial resources, judicial situation and regulation), can all be placed in this model. Furthermore, this model offers three factors which are not mentioned in policy documents (organisational norms, advice and subsidies). This provides the opportunity to test not only the emphasized factors, but also less emphasized factors. Based on the theoretical and practical application of this model, Green’s model has been chosen as the theoretical framework of this study.

2.5 Research Model

Based on the theoretical model, a research model can be developed. This consist of the stakeholders, factors and desired behaviour. The research model is shown below:

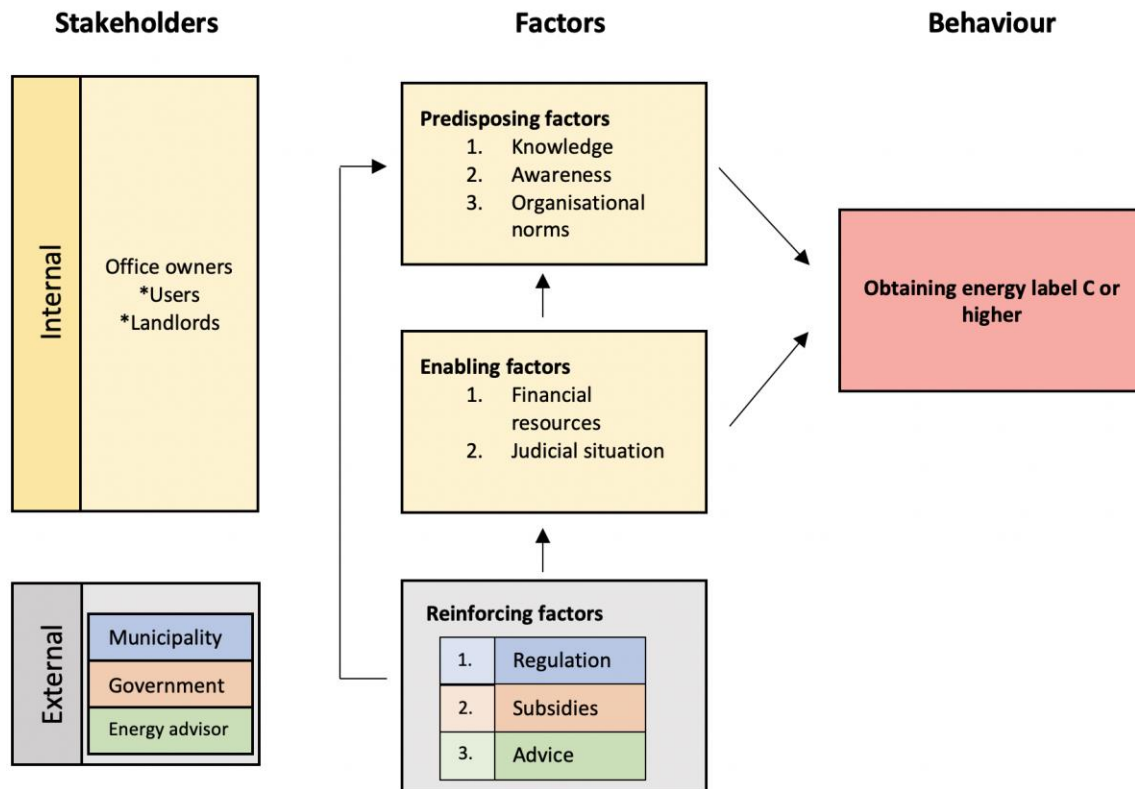


Figure 2: Research Model

2.6 Factors

In the next paragraphs, the chosen factors within the model will be explained based on existing literature and their relevance in the current situation. In the table below, an overview of the main-factors and sub-factors have been given.

Main-factors	Sub-factors
Predisposing factors	Knowledge
	Awareness
	Organisational norms
Enabling factors	Financial resources
	Judicial situation
Reinforcing factors	Regulation
	Subsidies
	Advice

Table 2: Overview factors

2.6.1 Predisposing Factors

The predisposing factors are knowledge, awareness and organisational norms.

Knowledge

Research results demonstrate that information provision plays a significant role in the implementation of energy efficiency measures (Rohdin & Thollander, 2006; Trianni & Cagno, 2012). Specifically, these studies suggest that unclear information or the lack of information concerning energy efficiency measures emerged as primary barriers for building owners in the retrofitting process of their building. In the Netherlands, information regarding EEMs will be primarily provided by energy advisors but in some cases also by the municipality or RUD (RVO, 2018). In this study, the factor 'knowledge' only consists of the amount of knowledge which a respondent possesses, without the information provision by the government, municipality or energy advisor. The amount of knowledge a respondent possess, will be based on the EEMs taken before the recommendation or instruction of external stakeholders.

Awareness

According to Shang et al. (2020) an increase in environmental awareness of office owners, results in a higher motivation to invest in energy efficiency improvements. This emphasizes the importance of the awareness in the process of improving the energy efficiency. In order to give a clear distinction to awareness, earlier studies suggest two important aspects within the factor. The first aspect is based on research from Martin et al. (2012), which indicates that managers who report a high awareness of climate change take more strategically important actions related to climate change. The second aspect is based on a study done by Shang et al. (2020), which concluded that the environmental awareness of office owners can be increased through energy benchmark policies.

Information and awareness relating to climate change is not provided by any of the stakeholder. However, details and consequences of the policy are provided by the government and municipality. The RVO provides digital information for office owners on the energy label policy (RVO, 2018). Whereas the municipality and other competent authorities provide information by personal letters (EID, 2021).

Organisational norms

The reputation of a company is an important driver for organisational behaviour and decision making (Taylor et al., 2003). In terms of energy efficiency, research (Pellegrini-Masini & Leishman, 2011) show that it is beneficial for organisations to cultivate a green image. If an organisation manages to achieve and cultivate this green image, they believe that they attract more skilled candidates, increase their appeal to clients and customers and attract investors (Pellegrini-Masini & Leishman, 2011). An energy efficient office could be an example to achieve this image, which may result in these consequential benefits. However, companies can also claim to act environmentally conscious without really spending time and money on sustainability. This phenomenon is called 'greenwashing' and damages the reputation of the organisation (Edwards, 2022). By checking the energy label of the company office, anyone can make sure if the relevant organisation is sincere with regard to the energy efficiency of their office.

2.6.2 Enabling factors

These enabling factors are financial resources and the judicial situation.

Financial resources

The first enabling factor of relevance in this study is the availability and accessibility of financial resources within an organisation. The role that financial resources can play in the intensity and probability of retrofits for residential buildings has been studied multiple times in the past (Achtnicht & Madlener, 2014; Gamtessa, 2013; Kontokosta, 2016; Tuominen et al., 2012). A German study explained that respondents mentioned the lack of financial resources (59%) and uncertainty about the payback period (51%) as important barriers for energy retrofit measures (Achtnicht & Madlener, 2014). Similarly, research show that building managers most frequently mentioned the absence of the necessary capital and the uncertainty of the payback period as the most important barriers to implement energy efficient investments (Kontokosta, 2016). It also indicated that the most frequently cited factor that motivates building managers to implement energy conservation measures, were those related to economic benefits (Kontokosta, 2016). Main targets were reducing the energy costs of the building and receiving attractive returns to the investment.

Besides the price and return on investments, both the price of labelling and insufficient subsidies were also mentioned by Dutch respondents as significant barriers to energy efficiency improvements (Tuominen et al., 2012). Surprisingly, none of the remaining barriers related to financing were mentioned by the Dutch respondents e.g., “EEM has no effect on price or rent of dwelling”, “Lack of appropriate affordable financing”, “Negative externalities not fully internalised”, “Low incomes” and “Sharing of costs among occupants” (Tuominen et al., 2012).

Judicial situation

Climate change policies and corresponding requirements which focus on improving the energy efficiency of buildings, are primarily relevant for the owner of the building (RVO, 2018). Firms can either own the building themselves, rent or lease a building. Hence, two different judicial situations may occur. When firms own their office, they are fully responsible to meet the required energy standards. Under those circumstances the organisational structure will indeed influence the firm's ability to improve the building's energy efficiency in order to meet the standard (Martin et al., 2012). When firms do not own the office building

that is being used, they are not ultimately responsible for meeting the required energy standard. In this case the landlord would be responsible. This would make the organisational structure of the firm an irrelevant factor that influences the improvement of the building's energy efficiency. Information asymmetry between the landlord and the firm may occur in these circumstances, which influences the process of improving the energy efficiency of the building. Because of this judicial difference, both situations will be differentiated.

The relationship between the organisational structure and the adoption of climate change policies has been studied in the past (Martin et al., 2012). His study shows two factors within the organisational structure of a firm that influence the adoption of climate friendly policies. The first one is the existence of a manager that is responsible for climate change issues, also known as a climate change manager (CCM). Research points out that organisations with a climate change manager have significantly more climate friendly management practices and are more likely to adopt climate change policy than those without such a manager (Martin et al., 2012). The second factor regards the proximity between the CCM and the CEO. Research indicates that decreasing the power distance between the CCM and CEO resulted in a more climate friendly firm (Martin et al., 2012).

When a firm does not own their office space but rent this space from a landlord, a principal-agent problem can occur (Papineau, 2017). This relates to an informational market failure which occurs when energy savings, created by energy investments, are difficult to establish, leading to unwillingness from the tenant to pay a higher rent (Papineau, 2017). The tenants' unwillingness to pay a higher rent leads to weaker incentives to invest in energy efficiency. This in turn potentially influences policy adoption (Gillingham et al., 2012). Additionally, the conditions in the lease agreement lead to ineffective and delayed decision making (Whitney et al., 2020). For instance, an agreement which states that both parties have to verbally agree on building operations, significantly complicates the energy efficiency process, which eventually leads to ineffective and delayed decision making (Whitney et al., 2020).

2.6.3 Reinforcing factors

The reinforcing factors are regulation, subsidies and advice.

Regulation

According to the RVO, the regulation will be done by the municipality in which the office is located (RVO, 2018). The better the office owners will be informed, the more offices will meet the set standards, creating less time-consuming work and expenses for the municipality. In other words, in this situation, the municipality benefits from a well-informed office owner, which makes it interesting for the municipality to help inform the office owners that are located within their municipality.

Subsidies

Once office owners have received an energy label and advice, they can follow this advice and invest in the energy efficiency of the building. Doing so will improve the energy label of the office. High investment costs affect the payback time of the investment and the willingness to invest in energy efficiency measures in a negative way (Achtnicht & Madlener, 2014). Governments can create a number of subsidies to reduce the height of the investment, to reduce the up-front costs and the payback time (Kontokosta, 2016). This stimulates office owners to invest in EEMs. Research shows that an increase in the government subsidy practice significantly stimulates investments in renewable energy made by small and medium sized firms (Bai et al., 2021). When applied to the Netherlands, it was found that the government currently provides a number of subsidies related to increasing the energy efficiency of a building (Kontokosta, 2016). The available subsidies can be seen on the “subsidie- en financieringswijzer” from the RVO Nederland (RVO, 2021a). In this study, the effect of the subsidies will be determined based on the experiences with the subsidies.

Advice

Another reinforcing factor that could possibly influence the energy efficiency and adoption of energy labels among offices is the advice from experts. Research indicated that information plays an important role in the energy efficiency process of office buildings (Rohdin & Thollander, 2006; Trianni & Cagno, 2012). In the Netherlands, office building owners receive this practical information through an energy audit (RVO, 2018). This energy audit consists of both an investigation that determines what energy label an office has and a subsequently developed advice on how to further improve this energy label. The method used to determine which energy label the office belongs to is the NTA8800 (RVO, 2020). This is a

method based on European CEN-norms, which can be used among all types of buildings, making it a detailed and well-organised method (RVO, 2020). An advisor that is not trusted by the owner or that provides unclear information results in a diminished willingness to undertake energy efficiency measures (Fresner et al., 2017). These findings emphasise the importance and influence that the quality of the energy advisor has on the adoption rate of energy labels. It furthermore displays another significant factor, the type of relationship between the advisor and the owner of the building. In this study, the influence of the energy advisor will be based on the experience of his services and the EEMs taken after receiving the advice.

3. Methodology

In this chapter, the research methods used to answer the main research question, will be explained. This is done through explaining the research strategy, data collection methods and data analysis methods.

3.1 Research strategy

The main objective of this research is to identify which factors influence the improvement and adoption of energy labels for relatively small offices in the region of North-Limburg. This is done by analysing the experiences that office owners have with improving the energy efficiency of their office(s) and requesting an energy label. In order to correctly collect and analyse these experiences, this research will make use of a qualitative approach.

A qualitative approach has been chosen for the reason that this method is suitable to investigate the experience and interpretation of the participating person (Verhoeven, 2014), which matches the research objective and main research question. A quantitative approach, which is used to test a causality using statistical data (Verhoeven, 2014), is less applicable in this research as there is no causality being tested.

With this research method, scientists can identify arguments and motives from stakeholders as a whole in a region, this is also known as a holistic approach and will be used in this research (Verhoeven, 2014).

To increase the validity and credibility, this research will use triangulation (Cohen et al., 2000). Triangulation is a method which combines two data collection methods which helps in exploring and explaining complex human behaviour (Bashir et al., 2008). Because this research focuses on exploring and explaining human behaviour through identifying barriers and motivators of office owners through their experiences, it is therefore a suitable method for this research. The two data collection methods that will be used are desk research, in the form of a literature study, and semi-structured interviews.

In order to analyse the data that has been obtained through the interviews, this research will use a thematic analysis method, with a combination of a deductive and an inductive approach. With a deductive approach, the obtained data will be analysed and developed based on existing theories and frameworks (Verhoeven, 2014). In this case, the theoretical

framework from Green (1974), will be used to research previously identified factors that influence the adoption and improvement of energy labels. An inductive approach will be used to explore possible factors that are not cited in earlier research (Verhoeven, 2014).

3.2 Desk research

Desk research has been done and used to answer research question one *“Which actors and factors that influence the adoption and improvement of energy labels for offices are being mentioned in policy documents and published in scientific research?”*. Scientists can use two variants of desk research: secondary research and literature study (Verschuren & Doorewaard, 2015). Within this research, the literature study will be used as the form of desk research. This variant is mainly chosen because it often studies literature in a qualitative and in-depth way (Verschuren & Doorewaard, 2015). These characteristics fit the requirements in order to determine which factors were identified through earlier research.

The advantages and disadvantages of desk research have been discussed in various studies (Verschuren & Doorewaard, 2015; Verhoeven, 2014). A significant disadvantage is the fact that the studies which are being re-used, were not originally intended for this research. This could lead to a one-sided view and reduces the quality of the research. However, this research makes use of multiple methods to explore the subject, and therefore will create a more nuanced and comprehensive view of the subject. An advantage of desk research is the time efficiency of this method.

3.2.1 Data collection

To answer the first sub-question, two different data sources are being used. The first is the RVO (2018), which provides the steps of improving and adopting an energy label. This helps understanding how the described factors and stakeholders influence this process. The involved stakeholders will be interviewed in a later stage of this research, resulting in high quality and nuanced data, which will be important in formulating an advice and answering research question four.

The second source of data which is used to answer research question one, is existing scientific research. This source is primarily used to formulate the factors that influence the adoption and improvement of energy labels. These factors will be used in developing an interview guide, which forms the foundation in answering research question two and three.

3.2.2 Data analysis

The data that has been collected through the desk research, in order to formulate relevant actors and factors, will not be further analysed by any program. The main reason is the fact that the discovered literature is straightforward and clear. As a result, the data can be primarily found in the theory and is imbedded in the results chapter.

3.3 Interviews

In order to answer research question two, *“Which factors influence the adoption and improvement of energy labels, for office owners in North-Limburg?”* and research question three, *“In which way does the energy advisor and governmental stakeholders influence the adoption and improvement of energy labels for relatively small office buildings in North-Limburg?”*, a total of six interviews have been conducted. These involve the four conducted interview with the office owners, one interview with an energy advisor and one with a representative of the Regionale Uitvoeringsdienst Limburg-Noord. In order to answer research question four, *“In which way do the influential factors and actors within this process differ between office owners that use the building in comparison to office owners that do not use the building?”* the four conducted interviews with the office owners consisted out of two interviews with office owners that use the office themselves and two with office owners that do not use the office themselves. In this way, possible differences between the two, as a result of the different judicial situations, can be identified. Research question five, *“In which way can the current energy label policy be improved?”* will be answered based on all six conducted interviews. The factors which appear to be the most influential based on the interviews will be compared to the factors named in the policy analysis. In this way potential gaps and point of improvement can be identified and described.

This research uses semi-structured interviews to test the influence of the factors and actors, which were discovered in the desk research, and to give the interviewee a chance to mention other factors. With this type of interview, the interviewer has the opportunity to use a topic list in order to test known factors, in combination with the possibility for the interviewee to highlight other factors (Verhoeven, 2014). In this way, interviewees can explain which factors influence their process in improving and requesting an energy label.

In order for these respondents to remain anonymous, their names and possible employers will not be named in this research. Instead of their name or organisation, an anonymous name will be used to refer to them. In case of the two interviewed office owners who use the office themselves, they will be referred to as Company A and Company B. This is because of the fact that both respondents partly or fully own the company which is located in the office building. In case of the two interviewed office owners who do not use the offices themselves, they will be referred to as Landlord A and Landlord B. This is because of the fact that both respondents rent the relevant office building out, which makes them the landlord of that property.

Both the energy advisor and the employee of the RUD will remain anonymous. In order to refer to the energy advisor, the name 'Energy advisor' will be used. Similarly, the interviewed employee of the RUD will be referred to as 'RUD'. In contrast to all the other respondents who work in an organisation, this organisation is named. This is primarily to make sure that the reader understands that the information, which is shared in the interview, is not linked to one municipality but rather a whole region of a province. This factor is helpful and important to draw conclusions which are related to all the municipalities located in the region of North-Limburg.

All of the respondents will be referred to as a 'he', regardless of their real gender. This has been done to simplify the writing of the results chapter. The real gender of the interviewees remains anonymous in this way.

3.3.1 Data collection

In order to find and select four interviews with office owners, a set of requirements has been developed. Organisations that meet the requirements will be selected through the GIS-viewer that was developed by the Dutch government (RVO, 2022). In the process of selecting the right participants, office owners will be personally contacted through email or by phone, to ask them if they are willing to conduct an interview. The set requirements are:

- The office has to comply with the obligation to obtain energy label C or higher, before 2023
- The office does not have energy label C or higher at January 1 2022
- The office surface is between 100 and 999 m²: this is based on the smallest range of office space that needs to comply with this obligation (RVO, 2022)
- The office is located in the region of North-Limburg
- The office is used by the office owner (2 participants)
- The office is not used by the office owner (2 participants)

The table below provides an overview of the interviewees and details about the interview:

Name	Function	Execution	Date
Company A	Co-owner software company	Physical location	01-06-2022
Company B	Owner software company	Microsoft teams	03-06-2022
Landlord A	Landlord office building	Physical location	14-06-2022
Landlord B	Landlord office building	Physical location	20-06-2022
Energy advisor	Energy advisor	Telephone	10-06-2022
RUD	Employee RUD	Telephone	21-06-2022

Table 3: Overview interviews and interviewees

The interviews with Company A (01-06-2022), Landlord A (14-06-2022) and Landlord B (20-06-2022), were all conducted on a physical location of their company. The interview with Company B (03-06-2022) was conducted using Microsoft Teams due to the busy schedule of the interviewee. An overview of the details of the office buildings is given in the table below.

Name	Municipality	Energy label 01-01-2022	Energy label now	Office surface (m ²)	Construction year
Company A	Leudal	-	A+++	400	2002
Company B	Venlo	-	A	925	2002
Landlord A	Venray	-	-	740	1985
Landlord B	Peel en Maas	-	-	614	1997

Table 4: Overview building characteristics

Both the interviews with the energy advisor (10-06-2022) and the RUD (21-06-2022) were conducted through the telephone. This was similarly as a result of the high workload of the energy advisor and the employee of the RUD.

Despite the preference to conduct the interviews physically, neither the interview conducted through Microsoft Teams nor the interviews conducted through the telephone led to any problems.

3.3.2 Data analysis

All of the interviewees gave the interviewer permission to record the interview. This made it possible to transcribe all interviews using Microsoft Word. After transcribing all the interviews, they were coded. This was done in the program ATLAS.ti, through the use of a codebook. In this codebook, predefined codes are developed and applied to the transcribed interviews, this can be seen in the appendix. The final codebook consisted of 39 codes. Most of these codes were theory-driven and partly data-driven (DeCuir-Gunby et al., 2010). The theory-driven codes were created based on the theory (Green, 1974) and the interview questions. The data-driven codes were based on the data which could not be coded based on the theory, an example of this is code “11.1 Niet genoeg capaciteit”.

The final step in this process was to develop ‘code groups’ and to sort the applied codes into the different groups, creating an overview of the result.

3.4 Potential dilemmas and limitations

To prevent ethical issues, the participation in the recorded interviews will be voluntary and participants are free to leave whenever they want. Before the interviews are conducted, participants will be informed about the purpose and risks of the research and will be asked for permission to record the interview. The anonymity of the participant and the confidentiality of the obtained information will be guaranteed. After the analysis of the data, the participants will have the possibility to review the transcript and will be informed about the results.

4 Results

In this chapter, the results of the interviews will be presented. Developed transcripts of the interviews with the office owners, energy advisor and municipality can be found in the appendix. Quotes which are mentioned in this chapter are translated from Dutch to English.

4.1 Influencing factors

Multiple factors may influence the process of improving and adapting energy labels for offices in North-Limburg. Based on the theoretical framework developed by Green (1974), three head factors were determined and tested among the six respondents which were interviewed. These factors are: predisposing factors, enabling factors and reinforcing factors. The influence of these factors and their sub factors, based on the conducted interviews, will be discussed in this paragraph.

4.1.1 Predisposing factors

The predisposing factors which were tested in the interviews are knowledge, awareness and organisational norms.

Knowledge

In order to test the amount of knowledge that the respondents possess, the respondents were asked which EEMs they had taken and when they decided to do this. Company A and B, both mentioned that they already wanted to take these EEMs before the advice of the EPA. Landlord B mentioned that he never received any advice from an energy advisor. Despite this fact, he stated to have taken multiple EEMs like applying solar panels and improving the isolation. On top of that, he mentioned living in an energy neutral home. This indicates that Company A, Company B and Landlord B, possess enough knowledge to have taken the EEMs without any advice, in contrast to Landlord B. He did not mention anything that indicated that he planned to take the EEMs before the advice of the energy advisor.

In addition to the energy advisor, municipalities also have the possibility and knowledge to inform office owners. However, according to the interviews, only one out of the four respondents was informed by the municipality through a letter and none of the respondents were triggered by this information. Company B expressed his dissatisfaction around the

information supply from the municipality by mentioning the following: “When you look at the communication towards companies, it could be a lot clearer. I have not heard anything myself... it could be my own fault, but I did not receive any letter or other form of information supply, nothing”. This is also the reason why he mentioned the information supply to be his biggest barrier in improving and requesting an energy label. Landlord A even tried to inform the municipality of Venray because of the fact that he did not receive any information from them until that point. He sent them a letter which contained all the standards that offices need to comply with before the end of 2023, but did not receive any answer back. In the interview he mentioned that “nobody from the municipality that is involved in this process is reachable, so in this municipality they are absolutely not engaged”.

In the interview with the RUD, he confirmed the possibility that a lot of office owners did not receive any information from them. He explained that the RUD recently started to inform office owners which at that point did not meet the set standards. As a result, the RUD was asked if they’ve already contacted all the relevant office owners to which he replied “We have not approached every office owner, but that will happen this year”. The method that the RUD uses to approach and inform office owners, is by sending them a letter. In the interview he mentions that the letter consists of two parts, the first part contains details of the legislation and the second part suggestive EEMs.

Awareness

In order to test the awareness of the respondents, they were asked about their knowledge of the energy transition and of their understanding of the details and consequences of the legislation. As a result, all the respondents mentioned they understood the energy transition. Only Company B mentioned a certain lack of awareness because of the fact that 2023 seemed far away. In the interview he stated: “2023 seems to be so far away and then you postpone things, however time flies of course”. On top of that he was the only respondent that expressed a certain dissatisfaction about the influence of the legislation on a global scale. After he had been asked if he wanted to address anything that was not covered he concluded, “The fact that the government is working on this topic is nothing but good. However, I do question the effect of us becoming more sustainable while in China a coal power plant opens up every other day”. Landlord B mentioned his high environmental awareness to be the reason why he experienced the legislation to be unnecessary. In the interview he cited, “I think this legislation is unnecessary, it is probably developed to stimulate the people who do not want to do anything, but not for people like me who are aware of the environment”.

Besides the environmental awareness, most of the respondents mentioned that they understood which standards their office needed to comply with before the beginning of 2023 and what the consequences were if the standards were not complied to. Only Landlord B did not know the details and consequences of the legislation. In the interview, he stated “I am not familiar with the legislation, maybe I have overlooked it myself, but no one told me this”. Although the remaining respondents declared to know the details of legislation, some parts of the legislation were not totally clear. For instance, Company A mentioned that he thought that the minimum required label was lower than energy label C and landlord A described his uncertainty about potentially merging his office and warehouse in an effort to circumvent this legislation.

The way in which office owners became aware of the legislation and were triggered to take action strongly varied, despite them having one thing in common. None of the respondents became aware of the legislation as a result of information from a governmental stakeholder. Company A was the only respondent that mentioned having received information from the municipality in the form of a letter, but eventually was triggered by the media to take action. The first time that Company B became aware of the legislation, he was renovating his office in Venlo resulting in the contractor of the renovation to ask him if he possessed the required energy label. As a result, the contractor contacted an energy advisor which performed an energy audit and developed an advice. Landlord A explained that he was informed by a company named ‘Signify’, which is his supplier of LED lighting. Landlord B was the only respondent to mention the fact that he did not know the details and consequences of the legislation and was also the only respondent who did not contact an energy advisor for advice or an energy label.

According to the RUD, the biggest barrier in the process of improving and requesting an energy label is the lacking environmental awareness of office owners. Concerning this he cited, “there is not enough environmental awareness. For the last two years, the news has been dominated by Covid-19 at the cost of environmental topics”. As a result, he mentioned that raising the awareness of office owners is their main priority at this moment.

Organisational Norms

In order to investigate the norms of the organisation and its relation with improving the energy efficiency of the office, respondents were asked if their organisation paid attention to sustainability and in what way. Most respondents stated that their organisation was in fact paying attention to sustainability. Company A mentioned the service of improving the

efficiency of companies, which is their prime service, as the way in which they pay attention to the environment. Company B mentioned that their organisation is paying attention to the environment by consciously regulating the temperature in their office and is planning to purchase an electric vehicle and solar panels in the future. However, none of the respondents mentioned their organisational norms to be a driver for improving the energy efficiency of their building and requesting an energy label.

4.1.2 Enabling factors

The enabling factors which were tested in the interviews are financial resources and the judicial situation. The influence of these factors according to the respondents will be described in the following paragraphs.

Financial resources

In order to investigate the influence of financial resources on the process of improving and adopting an energy label, respondents were asked about their experience with financial barriers and drivers. As a result, all of the respondents mentioned financial resources as a factor in the process of improving and adopting an energy label. However, none of the respondents considered the height of the investment to be a barrier in the process of improving the building's energy efficiency. Despite this fact, both company A and landlord A (2022) mentioned this factor as a potential problem for older office buildings in cities. With regard to costs of the energy advisor, none of the respondents experienced the costs of the EPA to be too high. However, one of the four respondents mentioned the price of the energy label to be a barrier in requesting this label. Landlord B mentioned that he did not have any energy labels, because he experienced the price of requesting a label to be too high. In the interview he cited the following: "I have a total of 16 properties in possession. If I have to request an energy label for every property, it will cost me more than 4000 euros, resulting in 16 certifications in my cabinet... for what?". Near the end of the interview, he even acknowledged that he experienced this to be his biggest barrier in meeting the set standards by 2023.

In contrast to the financial resources being experienced as a barrier, 3 out of 4 respondents mentioned the financial benefits as a result of improving the energy efficiency of the building, to be a driver in this process. Only Landlord A did not mention this factor. Out of the other three respondents, Company A mentioned this factor the most times (3 times). He even

shared the following opinion: "Why do people take energy efficiency measures? In my opinion, most people improve the building's energy efficiency as a result of the rising energy prices". Similar to Company A, Company B mentioned the lowering of the energy bill as a driver to invest in EEMs. As a result, both Company A and Company B mentioned that they already planned to change their halogen lighting into LED lighting before receiving the EPA. According to the interviews, this was the only EEM that both respondents took. In contradiction to the two Companies, the two Landlords did not use the terms 'the energy bill' and 'the energy price', a single time in their interviews. Instead of a reduction of the energy bill, Landlord B was the only respondent who mentioned taking extra energy efficiency measures to lower the amount of tax he needed to pay.

The experiences of the RUD, point out that the height of the investment is often experienced as a barrier for office owners to improve the building's energy efficiency. However, he also states in the interview that personal contact and informing the owner about the potential financial benefits, often results in the dissolvment of this barrier. Concerning this theme, he mentions: "We really have to help them to get motivated, especially the average office owner needs to be informed about the financial benefits. The more enthusiastic we are, the more enthusiastic they become".

Judicial situation

In order to investigate the influence of the judicial situation, Companies A and B were asked a different question than Landlords A and B. Companies A and B were asked about the influence of their organisational structure, whereas Landlords A and B were asked about the influence of the acknowledgements with the tenant. Both Company A and Company B mentioned the presence of an employee that assists them in the management of their property. However, only Company A mentioned that the presence and help of this employee helped him to understand the policy and take actions to improve the energy efficiency of the building. Company B explained that he receives assistance with the property management by a management assistant. However, despite the management assistance's responsibilities, this person was not aware of the legislation resulting in hardly any assistance.

Both Landlord A and Landlord B mentioned that their agreements with the tenant did not influence the process of improving and adopting an energy label. For both landlords, the main reason behind this fact is the presence of clear agreements between the landlord and the tenant. This is also mentioned by Landlord A, who states "the relation between me and

the tenant does not complicate this process. He changed a part of the lighting and I changed part of the lighting into LED". Remarkable is the fact that none of the Landlords mentioned any financial agreements, which in fact was mentioned by earlier literature studies as a barrier in this process (Gillingham et al., 2012).

4.1.3 Reinforcing factors

The reinforcing factors which were tested in the interviews are regulation, subsidies and advice. The results of these factors will be analysed in the following paragraphs.

Regulation

In order to determine whether the respondents believed that the municipality would regulate this legislation from 2023, all respondents were asked about their opinion on this factor. As a result, the code that was applied to an expression regarding a disbelief in the municipality, was cited the most often (together with the code 'financial barriers'). Surprisingly enough, all respondents expressed their disbelief in the municipality (11 times) and not a single respondent mentioned any belief in regulation by the municipality (0 times). Both Company A and Landlord B mentioned this factor the most times out of all the respondents (4 times). Company A explains the reason behind his opinion by citing: "Knowing the government and municipality; we can continue to work in the office buildings. I cannot imagine the municipality closing down an office in which a number of people work". Landlord B and the energy advisor both mention that they believe that the municipality does not have the capacity to regulate this legislation. In the interview with the energy advisor he states the following: "I do not think that this legislation will be regulated well. Every organisation copes with a staff shortage, I cannot imagine that the municipality finds itself in a different situation. Then the question arises, what do they want to prioritise?".

Even the interviewed employee from the RUD, which is the organisation that eventually needs to regulate this legislation, does not believe that any form of strict regulation starts on January the first, 2023. In the interview he also mentioned the difference between small and big municipalities by stating, "First, they will concentrate on the big municipalities because of the presence of more office buildings. Within the smaller municipalities, they will not start regulation on January the first, I will not see that happen. On top of that the RUD explains that he will not expect the municipality to demand the offices that do not meet the standard to close straight away. In the interview he mentions:

They will be actively engaged and eventually warned to meet the set standards before a fixed deadline. If office owners refuse to meet these standards, the relevant municipality will determine the consequences. Some municipalities will give them a fine, other will give them a second or third warning.

According to the RUD, the most important reason why he believes that the municipalities will not act straight away, is because the municipalities give priority to other things. One of the examples he mentioned is the regulation of safety within the municipality.

Subsidies

In order to test the influence of subsidies, all respondents were asked if they made use of any subsidies in the process of taking energy efficiency measures for their office.

If the respondent did make use of a subsidy, the respondent would be asked how they experienced the height and application of the subsidy. Based on the interview, a surprising observation was made: not a single respondent mentioned the use of a subsidy in order to reduce the costs of an energy efficiency measure and to meet the set standards. Company A, Landlord A and Landlord B explained that they could not receive any subsidy on the implemented EEM. Company A and Landlord A both mentioned the change of halogen lighting to LED lighting as the implemented EEM, which is not supported by a subsidy (RVO, 2018) and explains why this was not possible for them. Landlord B mentioned that his office(s) were not old enough to make use of a subsidy. The only respondent who applied for a subsidy was Company B. He mentioned that he applied for a subsidy for solar panels and was granted permission. However, as a result of uncertainties regarding his roof construction, in combination with a lacking supply of solar panels, the usability period of the subsidy expired before Company B was able to buy and install the solar panels. As a result, Company B was the only respondent who has had a bad experience with regard to subsidies and mentioned the following: "I think it would be nice if the government extended the usability period of subsidies over the whole period in which we need to meet policy standards. In this way, subsidies cannot expire within this period".

Advice

In order to investigate the influence of the energy advisor and its advice, all of the respondents were asked if they made use of an energy advisor and how they experienced the cooperation and information provision. Surprisingly, not all respondents mentioned the

use of an energy advisor. Landlord B was the only respondent that did not receive any advice or energy label from the energy advisor. This decision was mainly driven by two factors. The first one being the fact that Landlord B mentioned in his interview that all of his office buildings were close to being energy neutral, due to his high awareness and knowledge. As a result, Landlord B did not have the desire to contact an energy advisor for advice. The second one being the fact that Landlord B is not in possession of an energy label, which can only be provided by an energy advisor.

From the three respondents that did cooperate with an energy advisor, Company A and Company B both mentioned positive experiences with the energy advisor in the interviews (2022). Only Landlord A mentioned a negative experience with this advisor. In the interview, Landlord A mentioned that he contacted the advisor over six months ago, which resulted in him applying for the office drawings at the municipality. "From that moment, I have not heard anything from him" stated Landlord A. After the interview, Landlord A tried to contact the relevant advisor by giving him a call. The advisor answered his phone by telling him he was too busy and would call him back.

The fact that his advisor is not the only one that gets flooded with energy label requests, can be confirmed by analysing the interview with the energy advisor. In this interview he mentions the following things:

When I started working here three years ago, I occasionally worked with office buildings, but nowadays I do not have any other tasks. We also contracted a number of freelancers and are looking for more employees in order to process all of the energy label requests.

According to the energy advisor, this run-on energy labels started around February and March of this year and is not over yet. The reason behind this relatively late run-on energy labels is not clear for the advisor. In the interview he states "Even at the location of the customers, I will not hear any complaints. The only thing I hear is that some customers expected a faster service". In the same interview, the energy advisor mentions that office owners have to wait two to three weeks before the EPA and another two to three weeks for the development of an advice and energy label.

5. Discussion

In order to achieve the research objective, data from six interviews have been collected and analysed. In the first part of this chapter, the major findings, interpretation of these findings and how they are related to existing research will be described. This will be followed by policy advice and suggestions for further research. In the final part of the discussion, explanations for any surprising results and suggestions for future research will be provided.

5.1 Findings

This paragraph consists of the findings of this study.

5.1.1 Predisposing factors

Out of the three main factors, the predisposing factors turned out to be the most influential in the process of improving and adopting energy labels. These results suggest that the factor 'knowledge' influenced the process of improving the energy label the most. Furthermore, the results suggest that the factor 'awareness' has the biggest influence on the process of adopting an energy label. The importance of these factors was mentioned in policy documents (EIB, 2021; RUD, 2021) and published scientific research (Rohdin & Thollander, 2006; Trianni & Cagno, 2012). Based on the findings, it appears that the results of the literature study are in line with the results of this research.

All of the respondents that gained knowledge as a result of the energy advisor's personal advice, mentioned to have improved the energy efficiency of the office by taking a proposed EEM. The only respondent that did not receive any advice, still mentioned that the energy efficiency of his office would comply with energy label C or higher. In the interview with Landlord B, he mentioned having a lot of knowledge and experience with EEMs. This suggests that a certain amount of knowledge is necessary in order for the owner to take an EEM and comply with the standard energy efficiency. However, to possess this amount of knowledge, the information from an energy advisor is not required.

The biggest factor in requesting an energy advisor and gaining this knowledge is the awareness of the office owners, which consists of environmental awareness and legislative awareness. In terms of legislative awareness, which consists of the details and

consequences of legislation, three out of the four office owners explained to be aware of them. All three of these respondents contacted an energy advisor, which provided them with personal advice. As a result, all respondents that were aware of the legislation requested an energy advisor and improved the energy efficiency of the building. The only respondent who did not mention to be aware of the details and consequences, was landlord B who did not request an energy advisor. This suggests that the awareness of the office owner has a direct influence on the amount of knowledge (through advice from the energy advisor), which results in a positive effect in improving the energy efficiency of the building. In other words, the amount of legislative awareness has an indirect positive effect on energy efficient behaviour of office owners.

In terms of the energy label adoption, all respondents who mentioned to be aware of the details and consequences of the legislation, obtained or are in the process of obtaining an energy label. The only respondent who mentioned to lack this awareness is also the only respondent that did not possess or is in the process of possessing an energy label. This suggests that legislative awareness is a direct factor in the process of obtaining an energy label.

The other part of this factor, the awareness of the energy transition and environment, turned out to be less influential. Despite the differences among office owners in terms of EEMs and obtaining an energy label, all of the respondents mentioned being aware of the energy transition and environment. This suggests that the awareness of the environment is less influential in the process of improving and adopting of energy labels than the awareness of the details and consequences of the legislation.

5.1.2 Enabling factors

The most important finding relating the enabling factors is that these factors caused two major differences between the Companies and Landlords. Moreover, the enabling factors turned out to be less influential than literature review expected. The factor 'financial resources', was only experienced as a driver and not as a barrier, just like the organisational structure of the Companies. The relation between the Landlord and tenant did not influence the process, in contrast to the data from the EIB (2021), which identified this as a major barrier.

The most surprising finding of this study is the fact that the height of the investment did not occur as a barrier in the process of improving the energy efficiency of the building. Based on the reviewed literature, which suggests that the height of the investment forms a barrier in taking EEMs (Achtnicht & Madlener, 2014; Kontokosta, 2016), the height of the investment would be an expected barrier for at least one of interviewed office owners. However, none of the four office owners mentioned that they experienced this barrier, which suggests that height of the investment does not influence the process of improving the energy label. In the interview with the RUD representative, he mentioned he experienced the height of the investment to occur as one of the biggest barriers for owners that he contacted. However, he also mentioned that this barrier often disappeared once the RUD informed them of potential EEMs and their financial benefits. This indicates that a certain amount of knowledge could remove this barrier. In this study, all respondents possessed a certain amount of knowledge, which could explain this finding.

Another factor that could explain this finding is the height of the investments which were taken by the office owners. Three out of the four respondents mentioned the change of their halogen lighting into LED lighting, to be the only measure needed and taken in order to obtain energy label C or higher. The costs to change the lighting are substantially lower than most of the other EEMs, like solar panels or heat pumps. Another factor to take in consideration is the construction year of the offices. The oldest building belonged to Landlord A, which was constructed in 1985. The other three buildings were all built in 1997 or later (see table 4). According to the data and findings, Landlord A's building is also the least energy efficient out of the four. This suggests that older buildings need to take more EEMs, which cost more financial resources to reach the same amount of energy efficiency as younger buildings. A reproduction of this research with older office buildings, could result in a higher influence of the height of the investment than in this study.

The cost of the energy label was only mentioned to occur as a barrier by one of the four respondents. However, in the relevant interview, Landlord B mentioned the price to obtain an energy label to be his primary reason why he did not own any energy label yet. For this reason, this study suggests that the costs of the energy label directly influences the adoption of energy labels in a negative way. This means that energy advisor is not only a driving factor in the process of improving and adopting energy labels, but also appears to be a barrier. Despite the finding of this barrier, it is difficult to estimate to which extent this resulted in the absence of an energy label for Landlord B. This is especially due to the fact that he mentioned multiple other barriers in requesting an energy label. The combination of lacking legislative awareness, high knowledge and strong belief in the (high) efficiency of his

building, resulted in higher unwillingness to invest than the other respondents. For this reason, the cost of the energy label will not be considered as the biggest barrier of this process.

Three of the four respondents mentioned the financial benefits of EEMs as a driver to improve the energy efficiency of the building. From these three, Company A and Company B both mentioned that these financial benefits resulted in the reduction of the energy bill. Whereas Landlord B mentioned that his reduction in taxes, followed by the investment in EEMs, resulted in a financial benefit. Due to these results, this study suggests that the financial benefits act as a driver for the improvement of the energy efficiency of office buildings.

Based on the overall results regarding the impact of financial resources on the process of improving the energy labels, this study suggests that the financial benefits outweigh the financial barriers. With regard to the adoption of energy labels, only financial barriers influence this process. However, the influence of this barrier is expected to be lower than most of the other influential factors.

5.1.3 Reinforcing factors

From all reinforcing factors, which only consist out of drivers, the only influential factor turned out to be the 'advice'.

The factor 'regulation' was mentioned the most by the interviewed office owners. None of the owners believed in a strict regulation by the government at the start of the deadline. Apart from the office owners, also the energy advisor and the RUD, which is the organisation that will enforce the regulation on behalf of the municipality, expressed their disbelief in the realisation of the regulation. The reasoning behind this assumption varies between the respondents. Four out of the six respondents assumed that their municipality would not prioritise this theme over other themes, straight from the entrance date. From these four respondents, three mentioned the shortage of staff within the municipality as a reason for this. Both Company A and Company B, assumed the lenient regulation because they were not properly made aware of the legislation.

Despite the disbelief in regulation by all office owners, three out of the four respondents obtained or were in the process of obtaining an energy label. The only respondent that did

not own an energy label and was not in the process of obtaining one was Landlord B. However, landlord B mentioned that his disbelief in regulation was not his only barrier in obtaining an energy label. He also was not aware of the details and consequences of the legislation and mentioned the financial costs of requesting an energy label to be his biggest barrier. This suggests that despite the disbelief in regulation by all six respondents, the factor 'regulation' is not of significant influence in the process of improving and adopting an energy label.

These results partly correspond and differ with the findings of the policy analysis. The mentioned disbelief in regulation by all office owners are in line with the expectation of the policy documents (EIB, 2021). However, the policy documents expected this factor to form a major barrier in the process of improving and adopting energy labels (EIB, 2021), which the results contradict.

The problem statement of this study consisted of the lacking improving- and adoption-rates of energy labels, despite the deadline and possible consequences in 2023. The small influence of the reinforcing factors on the predisposing and enabling factors is considered to be the biggest reason of the problem statement. With the positive influence of regulation and subsidies, the problem would not have occurred in this size. This emphasizes the influence of the governmental stakeholders in this process, who both influence the two non-influential drivers.

5.2 Differences Companies and Landlords

The first difference between the Companies and the Landlords appears to be a financial driver. In the interviews, both Companies mention the reduction of the energy bill as a driver to take EEMs, in contrast to the landlords. Neither one of them mentioned this driver in the interviews. This could be explained due to the fact that both Companies pay the energy bill themselves, in contrast to both landlords. In case of the Landlords, the tenant often pays the energy bill, which lowers their awareness compared to the Companies. As a result, both companies do experience this financial driver, in contrast to the Landlords who do not experience this.

The second difference between the Companies and the Landlords appears to be with regard to their experience and use of the energy advisor. Both Companies expressed their satisfaction and good experience with regard to the energy advisor, in contrast to both

Landlords. Landlord A did make use of an energy advisor, but mentioned having bad experiences with him and Landlord B did not even make use of one.

The third difference between the Companies and the Landlord is caused by the organisational structure of the companies. Both Companies mentioned to have a co-worker or co-owner, which assists them in the management and maintenance of the buildings. This extra driver to take EEMs does not comply with both the Landlords. Only Landlord B mentioned to receive any kind of assistance, which consisted of contractual advice from his broker.

Based on these three differences, the biggest and most important difference between the interviewed Companies and Landlords became clear. Both the Companies were in possession of an energy label and both the Landlords did not. This finding cannot be fully explained as a result of the three differences mentioned. However, it is inevitable that this research suggests that Companies experience more drivers to take energy efficiency measures than Landlords.

5.3 Influence stakeholders

5.3.1 Energy advisor

Based on the results of this study, which points out that 'knowledge' is the most influential factor in the process of improving the energy efficiency of a building, the energy advisor has a major influence in this process. This is confirmed by the results of this study, which point out that every respondent who received advice from an energy advisor, took an EEM. Besides its major influence on the process of improving energy efficiency, it is also the only actor that can provide the energy label. This makes the energy advisor an influential stakeholder in the process of improving as well as providing energy labels. With regard to the importance, the interviews did not provide any new information. This suggests that the performed stakeholder analysis (low importance and high influence) provided similar expectations as experienced in reality.

5.3.2 Governmental stakeholders

According to the stakeholder analyses and the policy analysis, both the national government and the municipalities should have a major influence in the process of improving and adopting energy labels. However, the results indicate that both stakeholders did not

influence this process for the office owners. This contradicts on one hand the expectation of the stakeholder analysis with regard to the high influence of these stakeholders, and on the other hand the policy analysis which mentions the important role of the governmental stakeholders in communicating with the office owners.

Beside this, also the importance appears to be low. In the interview with the RUD, he mentions to have low expectations regarding the regulation of this policy by the municipality. Based on the policy documents (which mentions the lack of regulation as a barrier) and the stakeholder analysis (which expects the municipality to have low importance), these results are exactly as expected.

Based on these results, the governmental stakeholders (municipality, RUD and national government) can mostly be held responsible for the lacking improvement and adoption of energy labels for offices.

5.4 Policy advice

In order for the government to improve the efficiency of this process (improving and adopting energy labels for office owners), this paragraph will provide pieces of advice. The most important factor of this study turned out to be 'knowledge'. The factor with the biggest influence on the knowledge of office owners turned out to be 'awareness'. In particular, awareness about details and consequences of the legislation. Despite the recognition of the importance of this factor in policy documents, only one of the respondents received a letter from the municipality. This can partially be explained by the policy documents (EIB, 2021; RUD, 2021) and the interview with the RUD, which both mention to inform office owners that have not obtained energy label C or higher (July 2022). To inform and enforce more office owners, municipalities or other competent authorities could have sent a general letter with regard to the energy label policy to all office owners in an earlier stage, instead of merely a more detailed letter to a part of the office owners in a later stage. This could have resulted in more awareness earlier on, leading to more knowledge, which is a driver in improving and adopting energy labels.

In a later stage (for instance 2021-2022) a second letter or mail should have been sent to the office owners that did not comply with the set standards at that moment in time. These owners will experience barriers that the first group did not have. This could for instance be a certain disbelief in the regulation of this policy. In order to remove this barrier, it is the municipality's priority to inform the owners in the best way possible. This will raise the idea

that they will regulate the policy once it starts. This is partially what the RUD is doing at this moment in time, in the region of Limburg-North. However, the RUD chose to inform the office owners personally one by one. A more efficient method would be to send every office owner a reminder with an address, which they can contact if they have any questions. In this way, more office owners will obtain the information they need, which will lead to more improved and adopted energy labels.

According to the policy analysis, a barrier that influences the possibility to regulate the energy label policy is dissatisfaction to close offices that contribute to the regional economy and the high costs which are involved in regulating this legislation (EIB, 2021). In the interviews all respondents mentioned their disbelief with regard to the regulation, which was even confirmed by the RUD. The RUD mentioned the high costs and high workload as the reasons behind this. In order to improve the credibility of legislation, office owners need to be informed in an earlier stage about the consequences. Secondly, municipalities and other competent authorities need to have more leeway to be able to take actions earlier in the process and better cope with the workload.

Based on the policy analysis, it is expected that office owners who rent out their office could experience certain barriers (like practical difficulties). In practice, these expatiations turned out to be reality. Both Landlords were not in possession of an energy label in contrast to both Companies. However, the barrier 'practical difficulties' was not mentioned by any of the respondents. Instead, a financial driver which was mentioned by both Companies was not experienced by any of the Landlords. A way to benefit office owners who rent out their office could be by developing specific subsidies with the aim to increase the willingness of taking improving measures.

6. Conclusion

In order to reach the research objective of this study, the main research question *“Which factors influence the adoption and improvement of energy labels for relatively small offices in the region North-Limburg and how can this be implemented into the current energy label policy?”* was formulated. To answer this question, a total of five sub-questions have been developed. Four of these will be answered based on the obtained results. These questions helped develop and test the relevant factors and actors within the process of improving and adopting energy labels. Based on the results, a policy advice was formulated which included several policy improvements. In this chapter, these four sub-questions will be answered.

6.1 Influencing factors

Research question 2 *“Which factors influence the adoption and improvement of energy labels, for relatively small office buildings in North-Limburg?”* can be answered based on the obtained data from the four conducted interviews with the office owners. In these interviews, the factors knowledge, awareness, organizational norms, judicial situation and advice appeared to be influential on the process of improving and adopting energy labels. The factors financial resources, regulation and subsidies appeared to be of little or no influence on this process.

All the interviewed office owners were in possession of a certain amount of knowledge, which resulted in every owner to possess an office that would meet the set standards (energy label C). As a result, this factor appeared to be the most influential in the process of improving energy labels for small offices. The most influential factor in the process of adopting an energy label, turned out to be the ‘awareness’ of the office owner. The three owners who were aware of the legislation already obtained or were in the process of obtaining an energy label. Contrastingly, the single owner who was not aware of the legislation did not possess the required energy label, nor was he in the process of obtaining it.

The most surprising result of this study turned out to be the fact that the financial resources did not appear to form a barrier to the improvement of energy labels, although this factor is frequently named in scientific research and policy documents. However, some of the respondents did mention the possibility that other office owners could experience this barrier.

This thought was confirmed by the RUD representative, who mentioned that he experienced this to be the major barrier with residents that do not comply with energy label C yet. The financial costs in requesting an energy label, were considered as a barrier in the adoption process of energy labels. This factor was mentioned as the primary barrier for the single owner that did not obtain or is in the process of obtaining an energy label.

6.2 Influencing actors

Research question 3 *“In which way does the energy advisor and governmental stakeholders influence the adoption and improvement of energy labels for relatively small office buildings in North-Limburg?”* can be answered based on all six conducted interviews. In these interviews, the energy adviser turned out to have great influence on the process of improving and adopting energy labels. In contrast to the energy advisor, the governmental stakeholders (national government, municipality and RUD) were of less influence in this process.

The fact that office owners did not experience the influence of governmental stakeholders was confirmed in the interviews. The most mentioned and agreed factor turned out to be the regulation. None of the respondents, including the energy advisor and RUD, believed in a strict regulation from the municipality. Despite this fact, all four office owners recently took EEMs and three out of the four obtained or were in the process of obtaining an energy label. In addition to that none of the respondents mentioned the factor ‘subsidies’ in the conducted interviews. The only influential reinforcing factor turned out to be ‘advice’. All of the owners that received advice from an expert, took an EEM and requested an energy label. This emphasizes the influence and importance of the energy advisor within the process of improving the energy label.

6.3 Difference Landlords and Companies

Research question 4 *“In which way do the influential factors and actors within this process differ between office owners that use the building in comparison to office owners that do not use the building?”* can be answered based on the four conducted interviews with the office owners. In these interviews, three differences could be identified which were all in the disadvantage of the office owners that do not use the building (Landlords). This resulted in

the biggest difference between the two: both Companies were in possession of energy label C or higher, whereas both Landlords were not in possession of an energy label C or higher.

The first and most important difference appeared to be the fact that both Landlords did not experience the reduction of the energy bill to be a driver for improving and adopting energy labels. In contrast to the Landlords, the two office owners that were using the office themselves mentioned to experience this driver.

The second difference between the Companies and Landlords appeared to be their experience with the energy advisor. Both Companies had positive experiences with the advisor, in contrast to the Landlords who did not use the energy advisor or had bad experience.

The third and final difference appeared to be the positive effect of the factor 'organizational structure'. Both Companies experienced this factor to positively influence them in the process of adopting and improving energy labels. In contrast to the Companies, both Landlords mentioned to have not received any assistance with the process of improving and adopting an energy label.

6.4 Policy improvement

The fifth and final research question *"In which way can the current energy label policy be improved?"* can be answered based on the performed policy analysis and the six conducted interviews. In these interviews, the absent influence of the governmental stakeholders, despite them being mentioned in policy documents, stood out. To improve the efficiency of the energy label policy, governmental stakeholders should increase performance. As a result, governmental stakeholders can better cope with the workload, start informing at an earlier stage and improve the municipality's possibility to regulate this policy leading to a higher believe in regulation by the office owners. Moreover, office owners that do not use their office themselves need to receive extra emphasis in an attempt to stimulate them to improve and adopt energy labels. This could be done by personal communication by the RUD or municipality, or through a driver on a larger scale. For instance, a subsidy specially designed for Landlords.

6.5 Limitations

There are also some limitations to be considered regarding this research. First of all, the semi-structured personal interviews allowed for a more in-depth understanding of the participants' motivation and experiences. It gave unique insights that have been crucial for this research. However, the data collection has been a time-consuming process of getting in touch and setting up an interview meeting, making an interview guide, interviewing the participant, transcribing and coding the interview in a repeating cycle for each participant. A process that would be even more labour-intensive when the sample size would be significantly bigger than this current research. Secondly, the sample consists of participants from the relevant actors involved in this topic (two landlords, two company owners, an energy advisor and a relevant employee from the RUD) thus creating a distinctive comprehensible perspective on a complex issue. However, because of the relatively small sample size, its external validity is limited. Under the particular circumstances of this research, it was unfortunately not feasible to increase the sample size. During this process it was very difficult to get in touch with respondents. Many did not respond to my efforts to make contact and when contact could be made, it was even harder to reach the qualified person that was required to partake in the interview. Nonetheless, the ideal sample size would have been significantly bigger, keeping in mind the feasibility of the process. A bigger sample size would allow for more data on the target groups which leads to a more precise and accurate information base.

6.6 Suggestions for further research

Based on the findings of this research, it would be interesting to use the same theoretical framework in different Dutch regions. In this way, it is possible to test whether the influential factors in the region of North-Limburg match the influential factors of other regions. Besides this, it would be interesting to research how the findings of this study can be implied in practice. This research does provide a policy advice; however, it would be interesting to further research the Dutch energy policy. As a result, the efficiency of the Dutch energy policy can be further improved.

Furthermore, this research has focused solely on office owners. However, it would also be interesting to focus the research on home owners to examine whether the same motivators and thresholds apply here, and to examine how much impact improvement of energy efficiency may have on reducing the greenhouse gas emissions.

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Appendix

Appendix 1

Codebook

1. Persoonlijke informatie

1.1 Naam

1.2 Leeftijd

1.3 Werk/ studie ervaring

1.4 Bedrijfsgegevens

1.5 Pandgegevens

2. Kennis

2.1 Veel kennis

2.2 Weinig kennis

2.3 Geïnformeerd door de gemeente

2.4 Niet geïnformeerd door de gemeente

2.5 Bij toeval over de regelgeving geïnformeerd

2.6 Geïnformeerd door een medewerker

2.7 Teveel regelgeving

2.8 Geïnformeerd door een bedrijf

2.9 Onduidelijke regelgeving

3. Bewustzijn

3.1 Niet bewust

3.2 Wel bewust

3.3 Positief t.o.v. verduurzaming

3.4 Negatief t.o.v. verduurzaming

4. Organisationele normen

4.1 bezig met verduurzamen

4.2 Niet bezig met verduurzamen

5. Regulatie gemeente

5.1 Geen geloof in regulatie

5.2 Wel geloof in regulatie

6. Subsidies overheid

- 6.1 Goede ervaring
- 6.2 Slechte ervaring
- 6.3 Geen gebruik van gemaakt

7. Advies energie-adviseur

- 7.1 Goede ervaring
- 7.2 Slechte ervaring
- 7.3 Dienst adviseur

8. Financiële middelen

- 8.1 Financieel gestimuleerd
- 8.2 Financiële drempel
- 8.3 Geen invloed

9. Gerechtelijke situatie

- 9.1 Organisationele structuur
- 9.2 Verhuren kantoor

10. Verbetering

- 10.1 Betere informatievoorziening gemeente
- 10.2 Actievere rol gemeente
- 10.3 Duidelijkere regelgeving
- 10.4 Langere gebruikstermijn subsidies
- 10.5 Eenvoudigere subsidiemogelijkheden

11. Nieuwe factoren

- 11.1 Niet genoeg capaciteit

Appendix 2

Interview Company A

01-06-2022

I=Interviewer

R=Respondent

I: Zou u zichzelf kunnen voorstellen en misschien willen vertellen wat u hier doet en wat het bedrijf doet?

R: In 1998 ben ik afgestudeerd in Eindhoven van de studie Elektrotechniek. Twee jaar heb ik gewerkt bij puls Automation experts, daarna zijn wij hier begonnen. Het eerste jaar in de garage en toen hebben we snel daarna hier een kantoorpand in eigen beheer gebouwd. We zijn met twee kompanen. In 2001 hebben we hier het kantoor afgerond. Toen zijn we een aantal jaren goed bezig geweest. In 2004 of 2005 is de eerste medewerker bij mij gekomen. Ondertussen zitten we met 18 Engineers hier en maken we maatwerk, softwareontwikkelingen voor midden en grootbedrijven waar we business processen automatiseren. In 2014 werd het gebouw te klein. Toen zijn er een aantal kantoren bij gezet omdat we eigenlijk het streven hadden dat iedereen zijn eigen kantoor heeft. Nu hadden we twee engineers per kantoor voor de rust behouden en hebben wij in 2014, maar dat heb ik niet meer zelf gedaan, het eigen kantoorpand uit laten breiden naar dubbele oppervlakte. Nooit geen energielabel gehad, denk ik. Mijn compagnon heeft het gebouw in beheer. Recentelijk kwam in het nieuws dat Je geen kantoorpanden meer hebben of meer diensten verlenen vanuit een kantoorpand als je geen energielabel hebt. Er is recentelijk een keuringsinstantie hier geweest en hebben we energielabel verworven, dat is in orde en volgens mij hebben we energielabel B. Het is natuurlijk zelf gebouwd, dus al op hoog niveau.

I: Dit is dus uw eigen pand en u hebt dat samen met uw compagnon in bezit.

R: Ja.

I: Oké. Een beetje voor de algemene beeldvorming. Heeft u een beetje kennis van de energietransitie in zijn algemeen en de regelgeving omtrent energie labels?

R: Ik te weinig, mijn compagnon wat meer, maar als puur regelgeving waar we aan moeten voldoen. Ik denk dat we relatief energie neutraal zijn, we hebben zonnepanelen. Gas zijn we

allang vanaf. Wat dat betreft zijn wij energieneutraal, qua kosten. En dat is natuurlijk wat ondernemer interesseert.

I: Dus het doel van de energie labels, het verduurzamen, dat is voor u wel duidelijk. Daar bent u zich wel bewust van.

R: ja.

I: Was het voor u duidelijk wat voor consequenties het kon hebben als u in 2023 niet aan die eisen voldoet?

R: Ja, maar ik meende dat het lager zat dan C. Maar ik moet zeggen, ik houd me met heel veel projecten bezig en met heel veel business maar minder met de facilitaire dingen dus dat doet mijn compagnon. Dat houden wij ook echt gescheiden. Ik heb het wel meegekregen ja.

I: Oké! Bent u op enige manier geïnformeerd over die regelgeving?

R: Dat durf ik niet te zeggen. Mijn compagnon, kwam hiermee omdat hij het had gelezen in het nieuws. We hebben recentelijk denk ik ook een brief gekregen, maar dat durf ik niet met zekerheid te zeggen. Ik zou dat wel voor je na kunnen vragen?

I: Wanneer kwam uw compagnon daarmee?

R: Die is daar in februari mee gekomen en volgens mij hebben we in begin april een Extern bureau laten komen om die certificaat te regelen.

I: Weet u welk bureau dat is geweest?

R: Dat ga ik dadelijk voor je navragen.

I: Heeft u goede ervaring met de adviseur van het bureau?

R: Ja goed, we weten nu zeker dat het pand in orde is. Wij zijn zelf ondernemers en hebben er zelf weinig inhoudelijk mee. Het aanvragen van de adviseur ging gemakkelijk. Ik denk dat het ook wel een makkelijk traject was, omdat wij een pand hebben die al voldoet aan de eisen.

I: Klopt het dat de meeste investeringen omtrent het verduurzamen van de kantoorpanden vooral hebben gelegen in de verbouwing?

R: Ik denk dat we al duurzaam gebouwd hebben. Vorig jaar hebben we overal led-verlichting aangelegd, puur ook voor onze eigen beurs. Dat soort dingen houden wij ons wel mee bezig bijvoorbeeld.

I: Zeker. Heeft u in het verduurzamen van het pand en de verbouwing gebruik gemaakt van subsidies?

R: Nee. Er zijn geen subsidies betrokken geweest. Niet omdat het te moeilijk was om ze aan te vragen, maar ik denk omdat het niet kon. De zonnepanelen hebben we energie neutraal aangelegd en daar waren wel subsidies betrokken.

I: Heeft de structuur binnen organisatie invloed gehad op het verduurzamen en het aanvragen van het energielabel? Heeft u iemand binnen de organisatie die daar specifiek naar kijkt?

R: Ik denk wel dat we er eentje hebben, als je kijkt naar LED-verlichting bijvoorbeeld, daar is Frank wel mee bezig. Maar zijn natuurlijk altijd bezig met de centen, dus dat is dan meer vanuit dat oogpunt. Dat is uiteindelijk dus wel vanuit een kostenoverweging gebeurd, maar aan de andere kant: waarom verduurzaamt men? Ik denk dat de meeste mensen verduurzamen omdat de energieprijzen omhoog gaan. Aan de andere kant, dan is een energielabel een prima stok achter de deur. Wij vinden dat wel prima want we hebben altijd meegedaan, we hoeven nu dan ook geen mega investeringen te doen. We hebben geen oude kantoorpanden in de stad gelegen, waar je nu nog mega investeringen voor moet doen om er iets van te maken.

I: Dat de regelgeving in 2023 verplicht is al best wel een aantal jaar bekend.

R: Dat was denk ik niet bekend niet vanuit de overheids wegen. Ik neem aan dat mijn compagnon dat best wel ergens gelezen heeft, maar dat was meer vanuit de media dan de overheids wegen.

I: Hoe vindt u dat de overheid of de gemeente daarin kan verbeteren?

R: Ik zou zeggen dat de gemeente moet weten wat voor panden die heeft staan en dat ze ondernemers eigenlijk zou moeten ondersteunen om daar actief een rol in te nemen. Als er iets opgehaald moet worden zijn we heel actief, als de gemeente geld moeten krijgen dan zijn ze heel actief, maar als de gemeente pro-actief iets moet doen dan schiet de gemeente Leudal in ieder geval tekort. Ik weet niet hoe dat in andere gemeenten is.

R: En natuurlijk is het makkelijk, want je bent ondernemer en je moet alles weten. Het ligt altijd bij de ondernemer. In deze casus, als je het weet, en zeker bij de oude panden, dan kan je een investeringstraject opmaken. Gelukkig is dat hier niet nodig geweest.

I: hoe zou je dan de informatie beter willen krijgen? Is dat dan door middel van een mail of een brief of is dat door middel van een fysiek gesprek.

R: Van mij hoeft fysiek nooit, maar ik denk dat de gemeente daar een proactieve taak in zou kunnen nemen, zoals in de vorm van een brief of een mail. Als ze ondernemer maar informeren. Dan denk ik dat het bij de gemeente zou kunnen en moeten liggen.

I: Dan heb je eigenlijk nog die derde partij, de Energieadviseur, maar daar zijn zoals ik het hoorde, wel ervaringen goed mee?

R: Ja, bij ons is dat een dienst die we moeten hebben en zij leveren dat, er moet een label zijn. Ze zijn toen twee en een half uur hier en hebben ze alles heel precies nagelopen en bekeken. Dat is wel goed verlopen. Het resultaat was een energielabel. Kosten waren niet meer dan afgesproken dus dan is een ondernemer tevreden.

I: Zijn er verder nog dingen die van invloed geweest kan hebben hierop, die nog niet besproken zijn of die verbeterd kunnen worden?

R: Nee, Ik denk de informatievoorziening dat dat het allerbelangrijkste is en niet in 2022 als het al heel lang bekend is dat dit moet gebeuren dat overheden een pro-actieve rol hebben voor ondernemers. Want uiteindelijk is dat de motor van de economie. Het kan zijn dat het niet voor iedereen even fijn is uitkomen met corona en andere zaken, maar als ze het eerder hadden geweten dan was het denk ik minder een thema geweest.

I: Denkt u dat corona ook nog een invloed kan zijn in dit verhaal? Stel nu dat ze al een jaarinkomsten hebben gemist en wel een oud pand hebben?

R: 100%, Ik denk dat dat zeker van invloed kan zijn. Als je geen geld hebt om te investeren dan ga je daar ook geen rendement mee maken. Denk dat dit bij veel ondernemers wel een rol speelt, en als je dit 5 jaar geleden had geweten dan had je een investeringsplan kunnen maken van 5 jaar, dat is anders dan dat het nu moet. Ik vraag me af hoe de gemeentes of overheid het gaat handhaven?

I: Het is een regelgeving vanuit de overheid. En vervolgens zijn de gemeenten de verantwoordelijke om daarin te handhaven.

R: Maar zoals ik de gemeenten en overheid ken kunnen we in 2023 gewoon door ondernemen. Ik kan me niet voorstellen dat een gemeente het gaat verbieden voor een bedrijf waar x mensen werken om hun pand te sluiten. Als ze dit eerder hadden gecommuniceerd dan hadden ze ook samen met die onderneming kunnen kijken naar wat er nog is om het wel voor elkaar te krijgen in plaats van eventueel de onderneming nu dan tegen te houden. Denk aan wat voor subsidies zijn er, hoe kunnen wij daarin helpen als gemeente? Ik denk dat een proactieve gemeente zouden kunnen helpen, maar die hebben wij zeker niet in Leudal.

I: Dus Misschien voelt deze regelgeving dan ook een beetje als een soft regeling?

R: Ik denk dat het zeker gaat werken want ze hebben heel duidelijk gezegd dat je label C moet hebben of je moet sluiten. Maar ik zie nog geen pand gesloten worden. Dat gaat nog lastig worden, zeker ook in steden.

I: Volgens mij hoeft niet elk kantoorpand verplicht C te hebben, als je een monumentaal pand hebt hoeft dat niet.

R: Ik begrijp de regeling, ik vind het ook goed maar ik heb wel mijn twijfels bij de handhaving.

Appendix 3

Company B

03-06-2022

I=Interviewer

R=Respondent

I: Als u uzelf even wil voorstellen en wil vertellen wat u binnen uw bedrijf doet

R: Ik ben op mijn 24ste begonnen met dit bedrijf, op een zolderkamer zoals jij nu ook zit, met een pen en een potlood. Inmiddels is het bedrijf uitgegroeid tot 80 medewerkers en 100 mensen die wij op inhuurbasis inzetten. Wij doen drie activiteiten, wij hebben 2 opleidingsinstituten, wij verzorgen opleidingen voor werkende. Twee instituten vallen onder de ... groep, een daarvan focust zich op technische opleidingen en de andere richt zich voornamelijk op retail bedrijven, zoals supermarkten. Dat bedrijf ligt in Eden, het andere instituut ligt in Venlo. Het pand waar we zitten in Venlo is eigendom van mij privé en mijn compagnon.

I: Oke, en het pand dat u in bezit heeft in Venlo, weet u daarvan welk energielabel die heeft?

R: Ja, dat was voor mijn gevoel nog even een dingetje moet ik zeggen. Ik heb een specialistisch bedrijf daarvoor ingehuurd om mij te adviseren, want ik wist dat we 1 januari 2023 minimaal label C moesten hebben. Ze hebben dit beoordeeld en kwamen uiteindelijk met het advies om het hele pand te voorzien van Led-verlichting en daarmee hebben we energielabel A. Alle andere voorzieningen hadden we al getroffen, dus met het vervangen van de lichten konden we label A krijgen.

I: Dus in principe was de regelgeving omtrent energielabels, dus dat u voor 2023 minimaal label C moet hebben duidelijk?

R: Ja

I: En kwam dat dan omdat u daar zelf al redelijk wat kennis in heeft, omtrent de energietransitie en de energielabels?

R: Nee eigenlijk kwam het doordat we op een gegeven moment een kleine hadden, we hadden voornamelijk van binnen uit. De desbetreffende aannemer zei van: let op, heb jij al je energielabel op orde? Ik zei nou, hoe zit dat dan, dan praat ik over een jaar geleden en die heeft me er over getipt en uitgelegd dat ik wel voor 2023, en dan klinkt dat heel ver weg, minimaal label c moest hebben. Toen vroeg ik of hij iemand kende die mij daarin kon begeleiden, een soort van adviesbureau. Toen zijn die hier geweest en hebben ze een analyse gemaakt, een soort van rapport waarin stond wat wel goed was en wat niet goed was. Die kwamen toen met de conclusie dat het enige wat nog aangepast hoefde te worden de verlichting was. Toen heb ik gelijk een bedrijf ingeschakeld die de verlichting kon vervangen. De adviseur gaf aan dat als ik een factuur kon laten zien en kon checken of de verlichting daadwerkelijk veranderd was ik dan label A kreeg. Nou helemaal top.

I: Oké, dus eigenlijk bent u een beetje bij toeval geïnformeerd?

R: Ik had het wel een beetje op het vizier, maar ik was me daar nog niet gelijk zo bewust van moet ik zeggen. Dit omdat we over anderhalf jaar geleden praten en dan denk je; 2023 is nog ver weg en dan stel je het een beetje uit, maar de tijd vliegt natuurlijk.

I: En bent u daar in de tussentijd dan nog van op de hoogte gesteld en duidelijk gemaakt wat bijvoorbeeld de consequenties zijn als u niet voldoet aan minstens label C?

R: Ik heb niet een brief gehad en heb nergens informatie gehad vanuit de overheid of energieleveranciers dat het een voorwaarde is. Dus als je het hebt over communicatie richting bedrijven mag dat toch wel een stuk duidelijker gemaakt worden vind ik. Ik heb er zelf niks van vernomen, kan aan mij liggen maar ik heb geen brief gehad, geen mail gehad, geen informatievoorziening gehad, niks. Ik heb ook nooit iets op TV er van gezien, dus ik heb het idee dat het een beetje een soft regeling is, ik vraag me af hoe hard is het?

I: Oke, duidelijk. Dan even over uw organisatie, wordt er verder aandacht geschonken aan duurzaamheid of bent u daar verder mee bezig?

R: Steeds meer, niet op het allerbeste niveau moet ik zeggen, maar we proberen er zo veel mogelijk op te letten. We willen een elektrische auto en zonnepanelen, maar volgens de aannemer moet ik daarvoor eerst het platte dak vervangen. Dus ik heb binnenkort een afspraak met de dakdekker om te kijken of we het dak gereed kunnen maken voor zonnepanelen. We gaan verder binnen de panden ook bewust met energie om door middel van tijdschakelaars.

I: Oke mooi, u geeft aan dat u eigenlijk niet of nauwelijks bent ingelicht door de overheid of gemeente. Is dat dan helemaal niet?

R: Nee, helemaal niet

I: Hoe heeft u dat dan ervaren?

R: Ja in die zin wel want het is natuurlijk prettig als de overheid bepaalde regelingen opstelt dat wij als eigenaren daarvan op de hoogte worden gesteld. Ja, dat vind ik wel raar.

I: Er zijn ook allerlei subsidieregelingen die u kunt toepassen om uw kantoorpand te verduurzamen...

R: Ja, daar hebben we naar gekeken met de adviseur. We hebben destijds met de zonnepanelen een aanvraag gedaan en die was ook goed gekeurd. Alleen was het probleem dat die voor een bepaalde tijd geëffectueerd moest zijn, wat niet ging doordat we onzekerheid over de dakconstructie hadden en omdat er op een gegeven moment geen zonnepanelen meer geleverd konden worden. Ik heb vervolgens om verlenging of uitstel gevraagd maar dat konden we niet krijgen.

I: Dus eigenlijk is die ervaring met de subsidies ook vrij slecht geweest

R: Ik denk nu dat als de overheid bepaalde eisen stelt over verduurzamen, het mooi zou zijn als we gedurende die periode ook de subsidies zouden kunnen gebruiken en deze niet in die periode verloopt.

I: U gaf al aan dat u een energieadviseur had gebruikt. Voor welke dingen waren dat precies dan?

R: Het begon met een quick scan analyse om de status te bepalen en een advies te geven over welke maatregelen we moeten treffen om tot energielabel A te komen. Dus daar heeft die ons in begeleid.

I: En die heeft uiteindelijk ook dat energielabel uitgegeven?

R: Ja

I: En hoe heeft u die samenwerking ervaren?

R: Ja goed, want dat zijn professionals en die doen niks anders. Die hebben het mega druk momenteel dus ik was al blij dat ik de juiste persoon te pakken had.

I: Ja, want dat proces, verliep dat soepel of moest u lang wachten totdat u geholpen werd?

R: Nee, dat verliep wel vrij soepel, ik moest wel een paar keer er achter aan bellen, maar dat was ook omdat zij het mega druk hebben. Maar door het contact met de aannemer schakelde hij wel snel naar ons toe.

I: Waren de hoge investeringskosten om tot het energielabel te komen nog een belemmering voor u? Had u zoiets van dit werkt me tegen?

R: Nee, want het ging eigenlijk alleen om de Led verlichting. Dat was een investering van ongeveer 6000 euro die ik eigenlijk toch al wilde doen. Dus ik vond het die 6000 euro helemaal waard.

I: In dit geval bent u dan de eigenaar maar ook degene die dit soort dingen moet regelen. Had een andere structuur binnen uw organisatie het voor u makkelijker gemaakt? Bijvoorbeeld iemand die vast naar dit soort dingen kijkt?

R: Ik heb 2 management assistentes, waarvan er een verantwoordelijk is voor faciliteer en beheer van vastgoed. Dus pand onderhoud en noem het maar op, maar zij heeft niet de scope op verduurzaming. Samen met haar zoek ik uit hoe alles geregeld moet worden. Dus ik heb niet verduurzaming een manager zitten, maar wel iemand die me met alles helpt.

I: Oke en was zij wel op de hoogte van deze regelgeving?

R: Nee, niet eigenlijk niet.

I: Oke, hoe vind u dat de overheid en gemeente op het gebied van regelgeving kan verbeteren?

R: Een paar dingen denk ik. Ten eerste informatievoorzieningen moeten veel duidelijker en gerichter zijn. Twee.... subsidiemogelijkheden moeten een stuk eenvoudiger zijn, het is nu

echt een oerwoud van regelingen, dus het zou een stuk eenvoudiger en makkelijker om aan te vragen moeten zijn. En ten derde de termijn van de subsidies die er dan zijn.

I: Wilt u verder nog iets benoemen wat nog niet aan bod is gekomen?

R: Nee, ik denk wel over het algemeen dat een deel van het energielabel nog altijd subjectief is. Ieder pand is anders maar het feit dat de overheid er mee bezig is, is alleen maar goed. Aan de andere kant weet ik niet hoe zinvol het is dat we hier met elektrische auto en verduurzaming bezig zijn als in China nog iedere dag een bruinkoolcentrale wordt geopend. Dat wil niet zeggen dat je niks moet doen, maar het slaat soms wat door. Ze moeten beginnen met de grote dingen die het meest effectief zijn.

I: Dus ik kan concluderen dat de factor die u het meest heeft belemmerd, de informatievoorziening is die eigenlijk niet aanwezig was?

R: Ja. klopt

I: Enorm bedankt voor uw samenwerking!

Appendix 4

Interview Landlord A

01-06-2022

I=Interviewer

R=Respondent

I: Zou u uzelf willen voorstellen en kunnen vertellen wat u binnen het bedrijf doet?

R: Ik ben eigenaar van een installatie bedrijf. Ik werk nu nog 1 dag in de week, volgend jaar dan stop ik er mee. Ik blijf nog wel de eigenaar van het bedrijf. Verder heb ik wat onroerend goed in bezit en inderdaad ook een kantoor met magazijn wat moet voldoen aan label C, daar ben jij voor hier.

I: Dus nog even voor de duidelijkheid, het pand waar we nu in zitten daar bent u zelf of een bedrijf van u niet meer werkzaam in. Dus dit verhuurt u aan de eigenaar van dat bedrijf

R: Ja, klopt

I: Oke, en welk label heeft het pand?

R: Nog geen C, daar ben ik mee bezig geweest maar ik hoor niks meer van de adviseur. Je moet het eigenlijk zo zien. In dit pand zitten twee huurders, je hebt een kantoor gedeelte en een magazijn gedeelte. Ik heb dat twee jaar geleden opgesplitst in twee adressen. Dat had ik beter niet kunnen doen, want als het kantoor zoveel groter is dan het kantoor dan hoeft het niet te voldoen aan label C.

I: Oke, maar omdat dat dus nu op twee aparte adressen staat moet dat wel?

R: Ja, omdat het een los kantoor is moet het daar wel aan voldoen

I: Wat is verder dan uw ervaring met die energie adviseur?

R: Als ik alles zou vervangen voor Led verlichting, dan zou het voldoen aan C. Maar ik had geen oude tekeningen meer van het pand dus de isolatiewaarde die in de spouw zit, daar zijn we nog niet van overtuigd hoe dik die is.

I: Oke, want als die hoger was dan had u misschien minder nodig om aan C te komen

R: Ja, hij is nu de tekeningen op aan het vragen bij de gemeente, alleen daar heb ik niks meer van gehoord.

I: Oke, en hoelang is dat geleden dan?

R: ja dat is zeker wel een half jaar geleden.

I: Oke, dus die samenwerking met de energie adviseur verloop niet heel soepel.

R: Nee, ik zal hem dalkijk gelijk even bellen.

I: Wat is verder uw kennis omtrent de regelgeving van die energielabels?

R: Ja, vanaf 2023 is het C en vanaf 2030 is het dan A. Bij de woningen die ik in bezit heb, heb ik vorig jaar nog aangevraagd is het label A. Dan heb ik nog een woning in aanbouw, dat is sowieso A. En mijn stadswoning uit 2017 is ook label A.

I: Is het feit dat u dan zoveel panden in bezit heeft de hoofdreden dat u wel redelijk wat kennis over de regelgeving heeft?

R: Ja, maar ook bedrijfsmatig... installatietechniek, elektrotechniek, we krijgen ook regelmatig de vraag van klanten om te verduurzamen. Het aanbrengen van LED-verlichting in panden, nood verplechtig is ook verplicht om om te zetten naar LED. Bedrijfsmatig zijn we er dus best veel mee bezig.

I: Dus binnen uw organisatie wordt eigenlijk wel veel aandacht geschonken aan verduurzamen?

R: Ja

I: Op welke manier bent u geïnformeerd over deze regelgeving?

R: Eigenlijk door fabrikanten van verlichting. Bijvoorbeeld Signify, Philips hebben daar een hele mooie map van gemaakt hoe die regelgeving in elkaar steekt. Ook wel eens bijeenkomsten gehad met signify en daar uitleg over gehad.

I: Dus dat was meer vanuit bedrijven die u in lampen moeten voorzien

R: Ja

I: Oke, en wanneer was dat?

R: Dat is al wel langer dan een jaar geleden

I: En heeft u verder van de overheid of de gemeente Venray iets gehoord?

R: Nee, helemaal niks. Ik heb de gemeente ooit geïnformeerd, een brief gemaakt als voorlichting waar bedrijven aan moeten voldoen. Ook in noodverlichting, energielabels, noem het maar op, maar ik krijg bij de gemeente geen reactie. Daar is ook eigenlijk niemand bereikbaar die zich daar mee bezig houdt. Die houden de bal een beetje af, ze zeggen van bel maar over een jaar of anderhalf jaar terug. Dus hier in Venray zijn ze er absoluut niet mee bezig. Ik hoor wel van mijn collega's uit Brabant dat het daar wel speelt en dat ze er daar wel achteraan gaan.

I: Oke. Vanaf 2023 zijn gemeenten dan ook verantwoordelijk voor het handhaven van deze regelgeving. Verwacht u dat dat dan ook niet gaat gebeuren of wat is uw verwachting?

R: Nee, ik verwacht niet dat dat gaat gebeuren. Ik denk dat dat pas een jaar daarna gaat gebeuren.

I: Dus u denkt eigenlijk dat dat een beetje op stand-by wordt gezet totdat er misschien vanuit de overheid iets meer aandacht aan wordt geschonken?

R: Ja, dat denk ik van wel. Ik hoor ook niks van klanten in mijn omgeving over dat ze moeten voldoen aan een energielabel. Als ik dat zeg zeggen ze "dat zal wel, niks van gehoord".

I: En hoe is uw ervaring met de subsidies die hiervoor vrij zijn gesteld?

R: Ja, voor mijn eigen woning nu met de warmtepomp. Die heb ik een maand of 4 geleden besteld. Op die warmtepomp zit een subsidie van 2800 euro

I: Dus het aanvragen van de subsidie en de hoogte daarvan vindt u wel redelijk?

R: Ja, dat is ongeveer $\frac{1}{3}$ van de aanschafprijs en dat komt ook wel overeen. Die subsidie was eerst 20% maar is nu opgeschroefd naar 30%. Voor dat type warmtepomp is het dus 2800 euro

I: Merkt u verschil met het verduurzamen met een pand dat u zelf gebruik en een pand wat u niet zelf gebruikt, zoals deze?

R: Nee, de rol tussen mij en de huurder maakt dat proces verder niet moeilijker. Hij heeft een gedeelte van de verlichting vervangen en ik heb een gedeelte van de verlichting vervangen naar LED. Er moet nog een klein stukje gebeuren, maar dat zou hij doen. Het loopt dus allemaal

I: En hebben jullie daar dan duidelijke afspraken over gemaakt?

R: We hebben afgesproken dat ik beneden de lampen zou vervangen en hij boven in de kantine.

I: Heeft de financiële situatie binnen uw bedrijf nog invloed gehad op het verduurzamen?

R: Nee, we zullen allemaal moeten. Ik vind het van Jette, van D66, wel allemaal makkelijk gezegd: we moeten verduurzamen. Maar zo makkelijk is het allemaal niet

I: Ik hoor vaker dat ondernemers niet zo veel bezig zijn met die regelgeving omtrent verduurzamen en dat soort dingen. Denk u dan dat mede met dat in het achterhoofd de overheid en gemeente aandacht aan jullie had moeten schenken in de vorm van informatievoorzieningen?

R: Absoluut, ik ben heel goed op de hoogte, maar dat komt ook omdat ik een bedrijf heb in de techniek. Maar ik vind het wel ook naar de particuliere sector heel onduidelijk. Wij werken ook met bouwkundige installaties vaak, hoeveel mensen er voor een warmtepomp bellen, wij hebben de capaciteit en de monteurs er niet voor. 95% van de woningen voldoen nog niet

aan label C, hoe moeten zij verduurzamen dan? Die zullen hele hoge investeringen moeten doen

R: Ja, ik denk dat als je een hele hoge investering moet doen om aan label C te voldoen, dat ook wel als een drempel kan worden ervaren

I: Ja, die stellen het dan uit want ze moeten hun vloer er uit gaan breken en er vloerverwarming in gaan leggen. Zijn er überhaupt nog partijen te vinden die dat kunnen doen bij jou. Het was voor mij al lastig, we hebben een aantal monteurs die dat kunnen om een warmtepomp, maar voor mij staan ingepland om in de bouwvak te komen. Die capaciteit om te verduurzamen, de handjes, die is er volgens mij ook niet.

R: Oke, waarvan zegt u dat er echt anders had gemoeten om het aanvragen van een energielabel meer te stimuleren?

I: Ja, er wordt je zoveel opgelegd door de overheid, ik denk dat het voor de ondernemer niet meer te bevatten is wat er allemaal moet. Er zijn zoveel regeltjes en dingetjes...

R: Het is echt onduidelijkheid dus

I: Jaa echt onduidelijkheid. Ik heb me daar een jaar geleden eens goed in verdiept, in dat label C en als je ziet wat voor afspraken er zijn tussen bedrijfsverenigingen en de overheid, daar had ik zoiets van oke, daar voldoet niemand aan. Maar dat hadden ze wel afgesproken met elkaar.

I: Oke, wilt u verder nog iets benoemen of benadrukken wat nog niet aan bod is gekomen?

R: Nee, bedankt.

Appendix 5

Interview Landlord B

20-06-2022

I=Interviewer

R=Respondent

I: Bedankt voor uw snelle medewerking. Zou u misschien kunnen uitleggen welke kantoorpanden u in bezit heeft?

R: Ik heb in totaal vier kantoorpanden op dit bedrijventerrein in Panningen in bezit. Feitelijk verhuur ik dit pand ook. Deze onderneming 'Asbestsanering het Zuiden' heb ik in 2019 voor 60% de aandelen verkocht aan een hele grote bouwer in Nederland. De deal die ik met hun gemaakt heb is dat volgend jaar ook de resterende 40% geleverd worden. Dus eind 2023 heb ik al mijn aandelen overgedragen, ben ik geen aandeelhouder meer en zal ik hier ook niet meer werkzaam zijn. Dus feitelijk verhuur ik dit ook, vanuit mijn holding aan een werkmaatschappij waar ik wel nog in betrokken ben, maar wel afbouwend. Hier om de hoek ligt een pand dat ik in 2019 heb gebouwd en dat is verhuurd aan Finest housing.

I: En dan verhuurt u nog twee andere panden?

R: Ja, dan heb ondanks nog een pandje gekocht, nummer 223, dat heb ik gekocht en verhuurd aan 'hoera kindercentra'. Dan heb ik nog een ander pand, dat heb ik deels verhuurd en gebruik ik deels zelf.

I: Oke, weet u van die panden welk energielabel ze hebben?

R: Feitelijk nee

I: Dus ook van dit pand weet u niet of het een energielabel heeft?

R: Nee, dat weet ik niet. Maarja, met alle respect, ze kunnen het wel heel mooi schrijven dat je label C moet hebben, maar ja....

I: Dus u gelooft niet dat dat verder echt gehandhaafd wordt?

R: Wie gaat daar dan naar kijken?

I: In de beleidsdocumenten staat dat de gemeente voor de regulatie moet zorgen. Dus in dit geval zal dat de gemeente Peel en Maas zijn.

R: Ik moet wel zeggen dat ik niet de energielabels voor handen heb, maar nu is het wel zo dat ik daar wel heel erg goed naar kijk. Ik heb bijvoorbeeld het pand op nummer 223 gekocht, voorzien van een warmtepomp, geen gas, het pand is gebouwd tegen de nieuwste normen. Dus feitelijk moet het wel een hoog energielabel hebben. En nu kijk ik dan en zie ik dat het verbruik van de stroom zoveel is... dus we gaan er nog een pakketje zonnepanelen opleggen en dan zijn we energieneutraal. Dat vind ik wel belangrijk. Maar als je kijkt naar dit pand, daar zit wel nog een gasaansluiting, we hebben hier vloerverwarming op gas en warm water. Maar warm water hoef je maar op te lossen met een boiler. Maar helemaal van het gas af hier is lastig, anderzijds gebruiken we heel weinig gas. We hebben hier 80 zonnepanelen op liggen. De oude beplating van de hal is er van af gegaan, de binnendozen hebben we opnieuw geïsoleerd en we hebben een geïsoleerd pakket teruggebracht en we hebben ook een nieuw dak. Dus we doen hier wel heel veel aan uitstraling, maar ook het upgraden van het pand. We moeten anders is het dadelijk ook niet meer verhuurbaar.

I: Dus eigenlijk geeft u aan dat u wel degelijk bezig bent met het verduurzamen maar dan niet in combinatie met een energielabel?

R: Ja ik moet ook heel eerlijk zeggen, het zal me jeuken welk label er aan hangt. Het pand moet functioneel zijn en dan moet ik overal een energielabel aan gaan vragen die een paar honderd euro kosten. Dan denk ik voor wat? Zodat het in mijn klapper zit?

I: Want heeft u tot nu toe gebruik gemaakt van een energie adviseur voor advies?

R: Nee

I: Oke, duidelijk. Was u wel al bekend met de regelgeving?

R: Nee ook niet

I: Dus u bent op geen enkele manier geïnformeerd

R: Nee, dan heb ik er misschien overheen gekeken maar ik geloof niet dat er iemand tegen mij heeft gezegd dat dat moet. In mijn privé vastgoed komt nu 1 juli verplichte brandmelders. Maar dat is gewoon landelijk in het nieuws en weet ik veel allemaal, dus dat heb ik wel allemaal verzorgd, want ik wil niet dat ik in gebreken val. Ik verhuur dat pand, dus ik moet de lust en lasten opraaien en dat doe ik dan ook gewoon netjes

I: De panden die u dan heeft verduurzaamd, heeft u daarbij gebruik gemaakt van subsidies?

R: Nee, want het is nieuwbouw en dan krijg je geen subsidie

I: Heeft uw financiële situatie nog invloed gehad op het niet doen van bepaalde investeringen?

R: Nee dat eigenlijk niet. Sterker nog, ik heb de hal hier verduurzaamt omdat ik beter de hal hier kan verduurzamen en de belasting een beetje mee laten betalen in plaats van maar gewoon belasting af te tikken. Ik heb extra geïnvesteerd in het verduurzamen om minder belasting te betalen.

I: Dus het was voor u eigenlijk een financiële prikkel?

R: Nou los van het feit dat het pand iets nodig had was het wel een leuke bijkomstigheid

I: Heeft u met de panden die u verhuurd onderlinge afspraken gemaakt met de huurder over verduurzaming?

R: Nee, want als ik kijk naar huisnummer 246, dat heb ik nieuw gebouwd en dat is van 2019, dus dat is ook gewoon prima. De mensen die daar in zitten hebben een huurcontract van 5 jaar. Op nummer 236 is het ook prima, dat pand is eigenlijk zo goed als energieneutraal op een beetje gas na. Maar daar stoken we eigenlijk bijna nooit. Nummer 223 is bijna energieneutraal en dit pand ook, hoewel dit wel een redelijk groot pand is. Hier liggen 80 zonnepanelen bovenop, dus we hebben er toch wel wat aan gedaan om het milieu niet te zeer te belasten.

I: Oke, dus u geeft eigenlijk aan dat de relatie met de verhuurder geen invloed heeft gehad op de beslissingen omtrent verduurzamen?

R: Nee, het zijn allemaal nieuwe of heel goed onderhouden panden. Dus dat energielabel, ik heb het ze voorhanden, maar ik durf het wel aan dat het minimaal C heeft.

I: Weet u ook wat de consequenties zijn op het moment dat u niet voldoet aan label C in 2023?

R: Nee

I: Oke, dan staat er in de documenten dat u geen gebruik mag maken van het pand. Maar u geeft ook aan dat u niet gelooft dat een gemeente hierin gaat handhaven?

R: Nee, dat lijkt me stug

I: En waarom denkt u dat?

R: Omdat ik het ze niet zie doen. Los daarvan denk ik dat wij heel veel lasten van de gemeente dragen met onze belastingen. Dus ik geloof niet dat die op 1 januari aankloppen en zeggen van "heb jij een energielabel, want dan wil ik dat graag even zien en ander sluiten we je pand". Los daarvan denk ik toch dat ze dan eerst zouden moeten manen.

I: Denkt u dan ook dat vanwege het feit dat u nog helemaal niks gehoord heeft dat een reden kan zijn dat ze het niet gaan handhaven?

R: Ik zou niet weten wie dat hier bij de gemeente zou moeten doen. Los daarvan denk ik dat ze gewoon de capaciteit niet hebben. Maar dan nog, ik vind het gewoon een flauw regeltje. Dat is natuurlijk verzonnen voor de mensen die helemaal niks willen doen, maar wij als bedrijf die netjes in de pas lopen.

I: Want uw bedrijf en uzelf zijn wel bewust bezig met verduurzamen?

R: Absoluut, ik heb ook een energieneutrale woning dus ik ben daar zeker mee bezig. Ik investeer liever dan dat ik honderden euro's teveel aan energieleveranciers moet betalen. Maar goed, los daarvan, ik weet niet hoe duur het is om een energielabel aan te vragen, maar volgens mij is dat redelijk prijzig.

I: Ja, volgens mij is dat vanaf een paar honderd euro en gaat dat stapsgewijs omhoog. Er zijn natuurlijk heel veel regels. Is dat ook een reden dat u hier relatief weinig van wist? Zijn er misschien teveel en te onduidelijke regels?

R: Ik moet heel eerlijk zeggen dat ik me daar helemaal niet zo mee bezig houd. Ik heb fatsoenlijke huurovereenkomsten die ik altijd door een makelaar laat opstellen. Die doet ook de intake en de zaken regelen op het moment dat iemand uit het pand gaat. Ik wil daar gewoon geen geneuzel mee hebben.

I: Dus eigenlijk is uw belang voor het krijgen van de huurinkomsten, ongeacht of daar een energielabel aan verbonden zit?

R: Nou het is niet zo dat ik daar niks om geef, het is feitelijk gewoon zo dat ik zoiets heb van ja... ik vind het meer geldklopperij dan wat anders. Ik weet dat ik mijn zaken op orde heb, waarom moet ik dat dan laten bevestigen op een A4'tje?

I: Ja, ik denk zodat de overheid en gemeente het makkelijker kunnen reguleren. Als we naar het aanvragen van het energielabel kijken, wat is dan de grootste barriere voor u?

R: Dat is eigenlijk een bevestiging voor datgene wat ik al weet maar dan moet ik honderden euro's voor betalen... wat brengt mij dat?

I: Ja snap ik

R: Daarom heb ik daar een beetje moeite mee. Ik heb in totaal 16 vastgoed panden prive en zakelijk. Als ik voor ieder pand een energielabel moet aanvragen dan kost mij dat meer dan 4000 euro en dan heb ik 16 briefjes in de kast liggen... voor wat?

I: Dus u vindt het vooral overbodig om een label te hebben?

R: Ja, ik vind het jammer. Ik vind het gewoon geldklopperij. Ze mogen bij mij komen kijken en gaan zeggen van ja prima, u doet niks aan uw pand. Maar dat ik dan moedwillig op kosten wordt gejaagd vind ik niet zo fijn.

I: Dus u had liever gezien dat er op een andere manier kan worden aangetoond dat uw pand voldoet aan de eisen?

R: Ja. zoiets

I: Wilt u verder nog iets benoemen wat niet aan bod is gekomen of wat u hierover kwijt wil?

R: Nee, in principe niet

I: Oké, dan dank ik u enorm voor dit interview

Appendix 6

Interview energie adviseur

10-06-2022

I=Interviewer

R=Respondent

I: Zou u uzelf misschien even voor willen stellen en kunnen uitleggen wat u precies doet binnen uw bedrijf.

R: Ik ben in 2016 afgestudeerd aan de opleiding vastgoed en makelaardij in Eindhoven. Ik heb een aantal jaar gewerkt bij een bedrijf dat werkt aan de energielabels voor woningcorporaties en alles wat daar mee te maken heeft. Daar heb ik twee jaar gezeten, toen vond ik het vrij eentonig worden dus toen ben ik verder gaan zoeken en ben ik bij dit bedrijf terecht gekomen. Dat was eerst een ander bedrijf, maar die zijn een fusie aangegaan met een ander bedrijf en dat is dit bedrijf geworden. Vanaf het moment dat ik daar zit doe ik ook de utiliteitspanden en energielabels.

I: Hoe zit het proces van het aanvragen van een energielabel er precies uit?

R: Dat ligt er aan. Bekende contacten sturen gewoon een mail of bellen. Anders kan men ook via de website een aanvraagformulier invullen, dan krijgen wij een melding en nemen we contact op met de aanvrager.

I: Dus in principe als ze een energielabel aanvragen, gaat er geen advies van te voren naar de klant toe of is dat een combinatie van advies en label?

R: Ja dat ligt er een beetje aan. Voor een advies moet je eerst weten wat het energielabel nu is. Dus we moeten sowieso een energielabel opstellen. Afhankelijk wat er uit dat energielabel komt ga ik kijken wat voor advies er nodig is. Als jij bijvoorbeeld een A label hebt, dan kan je wel een advies gaan schrijven voor A++, maar daar zitten de meeste eigenaren niet op te wachten. Dus wat ik vooral merk is dat de aanvraag is "we hebben geen label, we moeten voor 2023 aan label C voldoen". We willen een label, als dat nog geen C is dan willen we weten wat er nodig is om wel aan C te komen. We werken ook met verschillende partijen die energiescans doen, daar krijgen we ook verschillende aanvragen

van. Vaste opdrachtgevers sturen automatisch alles door, soms hebben we losse eigenaren die op internet gaan zoeken en zo bij ons terecht komen.

I: Hoelang duurt dat proces? Op het moment dat iemand contact met u opneemt, duurt dat dan lang?

R: We plannen een week of 2/ 3 vooruit. Dat betekent dat als we nu de aanvraag doen dan kunnen we met geluk over drie weken een opmaat doen. Daarna hebben we nog een week of 2/ 3 nodig om alles te verwerken. Je bent wel snel anderhalf tot twee maanden verder eerder je je label en advies hebt.

I: En hoe hoog zijn de prijzen?

R: Deze zijn op de website te zien en gaan stapsgewijs omhoog.

I: Merkt u dat het aantal aanvragen voor energielabels de afgelopen periode of jaren is toegenomen?

R: Ja, dat is goed te merken

I: En hoe merkt u dat dan?

R: Nou toen ik hier drie jaar geleden begon was ik af en toe bezig met utiliteit en nu ben ik nergens anders meer mee bezig. We hebben ook een aantal ZZP'ers die met ons mee draaien, die moeten we ook steeds meer inzetten omdat we anders het aantal aanvragen niet kunnen behandelen. We zijn nu ook dringend op zoek naar mensen die bij ons in dienst willen komen om dit werk ook te gaan doen. We merken ook vanuit verschillende partijen dat die aanvragen nu binnen komen. We werken met verschillende partijen die energiescans maken voor gebouwen, die willen dan een energielabel er bij, dat begint nu wel echt te leven.

I: Vanaf wanneer is dat aantal dan echt toegenomen? Was dat begin dit jaar, of al eerder?

R: Ik denk dat een beetje februari/ maart. Laatste drie a vier maanden heb ik het idee dat het echt storm loopt.

I: Waarom denkt u dat eigenaren van kantoorpanden zo relatief laat pas actie ondernemen?

R: Ja, dat een goeie vraag, dat kan je beter aan de eigenaren vragen

I: U krijgt niks vanuit eigenaren te horen over ontevredenheid of iets dergelijks?

R: Nee, eigenlijk niet. Ook als ik op locatie ben krijg ik niet echt iets te horen of te klagen. Het enige wat ik hoor is dat ze hadden verwacht dat het iets sneller kon.

I: Sneller vanuit jullie kant?

R: Ja precies, ja die gaan ook zeggen van dat regelen we wel als het zover is, dan is het zover en dan zitten de agenda's vol bij iedereen. Dus ik merk wel dat ze zeggen dat ze overall een label proberen te regelen, maar ik kom nergens op korte termijn. Maar waarom ze zo lang gewacht hebben, dat is een vraag die je het beste aan hun kan stellen.

I: Uw ervaring met de samenwerking met die eigenaren van die kantoorpanden, is die vaak negatief of valt dat over het algemeen wel mee?

R: Mijn persoonlijke ervaring is dat ik het wel redelijk vind meevallen. Het is natuurlijk ook vaak dat de eigenaren aanvraag doen omdat ze eigenaren van het pand zijn, maar als ik op de locatie kom heb ik 9 van de 10 keer geen contact met de eigenaar omdat hij niet fysiek aanwezig is op dat moment. Dus alleen als ik eventueel gegevens nodig heb die ik tijdens het gesprek niet heb weten te achterhalen dan kan het wel zijn dat ik de eigenaar bel over CV-installaties, onderhoud of dat er tekeningen zijn. Dat soort dingen dan zeg maar. Dus daar over heb ik wel contact met de eigenaar maar dan is het niet vervelend, want dan ben je ze juist aan het helpen.

I: Als u een advies geeft, is de hoogte van de investering dan van invloed op het volgen van dit advies?

R: Dat heb ik tot nu toe nog niet meegemaakt. Ik hoor op het nieuws ook wel regelmatig berichten dat de helft van de kantoorpanden niet aan energielabel C voldoet, mijn ervaring is iets anders. Ik heb het idee dat de utiliteitspanden juist sneller een goed label hebben dan de woningen. Er zitten natuurlijk wel kantoorpanden bij die slecht zijn, maar over het algemeen denk ik dat 70% van de panden die een CV-installatie vanaf 2000 hebben, al snel label C hebben. En vaak komen ze door alleen Led verlichting te gebruiken al een heel eind.

I: Dus u denkt dat die cijfers van 50% komen door het feit dat veel kantoorpanden nog geen label hebben, maar op het moment dat ze die aanvragen wel boven label C uitkomen.

R: Ja dat is moeilijk te zeggen, je hebt ook veel kantoorpanden in oude binnensteden, die slecht zijn geïsoleerd. Dan is het maar net de vraag hoe het gekoeld en geventileerd wordt. Ook de verhouding tussen je vloeroppervlakte en de geveloppervlakte, dus de compactheid van het gebouw speelt mee. Er zijn dus wel meer dingen die meetellen dan alleen isolatie en CV-installatie. Maar van de panden die ik doe zie ik wel vaak dat C gehaald wordt.

I: Oke, dat is mooi. Vindt u dat de subsidies die hiervoor beschikbaar gesteld zijn hoog genoeg zijn.

R: Ik denk dat de hoogtes en de mogelijkheden voldoende zijn. Het is alleen even kijken wat er interessant is en wat niet. Als de muren goed geïsoleerd zijn heeft het helemaal geen nut om die nog verder te isoleren. Dus ik denk dat het belangrijker is om te kijken welke maatregelen nodig zijn en daarna pas naar subsidies te kijken want je kan misschien wel subsidie krijgen, maar als je een andere maatregelen nodig hebt, heb je daar nog niks aan.

I: Oke, dan als laatste. U geeft aan dat die stormloop op energielabels pas vanaf dit jaar is begonnen. Had de overheid misschien iets anders kunnen doen om dit proces soepeler te kunnen laten verlopen?

R: Das een lastige vraag. Je weet natuurlijk niet dat als het eerder bekend was gemaakt, eigenaren dan eerder actie hadden ondernomen. Ik denk zelf dat veel vastgoedeigenaren helemaal niet bezig zijn met het energielabel en dat die zoiets hebben van het zal me mijn reet roesten, dat pand is verdient en we gaan door naar het volgende. En nu komen ze allemaal aan dat ze een label moeten hebben en vragen ze die vervolgens ook aan. Ik vermoed, dat is puur mijn intuïtie, dat de vastgoedeigenaar niet eerder het label zal aanvragen als het eerder bekend was gemaakt. Want volgens mij is het al even bekend toch?

I: Ja klopt

R: Dus ik denk niet dat eerder bekend maken of dat soort dingen helpen om het sneller op gang te brengen.

I: En misschien beter informeren van eigenaren?

R: Ja dat vind ik altijd een beetje dubbel. Het is in alle publicaties en vastgoed gerelateerde bladen en dergelijke voorbij gekomen. Dus het is goed bekend gemaakt, alleen als een eigenaar dan aangeeft dat hij nog geen bericht heeft gehad, maarja dan kun je ook zelf wel een beetje kijken wat voor label je hebt. Dus misschien had de overheid een bericht kunnen sturen, ik moet overigens wel zeggen dat ik een aantal opdrachtgevers heb gehad die ons hadden benaderd aan de hand van een brief van de gemeente. Dus die kregen een brief dat hun kantoorpand nog niet voldoet aan energielabel C en dat dat vanaf het begin van 2023 verplicht wordt, anders moet het kantoor sluiten. Dus er worden brieven gestuurd, maar als er helemaal geen label op zit wordt het voor de overheid of gemeente ook lastig om een brief te sturen.

I: Dan als allerlaatste vraag, denkt u dat de gemeenten deze regelgeving kunnen handhaven?

R: Ja dat is altijd de vraag wie dat er gaan handhaven en of dat goed gebeurt. Ik denk dat het meevalt, ze hebben overal personeelstekorten en dat zal bij de overheid niet anders zijn. Dan is het de vraag waar ze zelf de meeste prioriteit aan willen geven.

I: Zijn er nog dingen vanuit uw kant die u wilt aangeven of die ik niet benoemd heb?

R: Nee, volgens mijn niet

Appendix 7

Interview RUD

21-06-2022

I=Interviewer

R=Respondent

I: Zou u uzelf kort willen voorstellen en uitleggen waar u werkzaam bent?

R: Ja,

ik ben werkzaam bij de RUD in limburg-Noord. Dit is een netwerkorganisatie. Dus in principe zijn alle gemeenten in Noord-Limburg hierin vertegenwoordigd, waarbij de medewerkers wel in dienst zijn van de eigen gemeente.

I: Oke, wat zijn precies jullie taken binnen dit proces m.b.t. energielabels

R: Ik ben een van de 7 energiespecialisten van de RUD en wat wij doen is: wij bezoeken de bedrijven om ze te helpen te voldoen aan de erkende maatregelen. Vaak is het zo dat als wij bedrijven informeren over het feit dat ze geld kunnen verdienen door te verduurzamen dan zijn ze vaak bereid om de desbetreffende maatregelen te treffen. Daar zijn de energielabels een onderdeel van. De panden die op dit moment nog geen energielabel hebben benaderen wij op een actieve manier. De gemeente afzonderlijk in combinatie met de RUD informeren ze dan over het feit dat ze vanaf 2023 moeten voldoen aan de label C plicht.

I: Dus jullie zijn op dit moment bezig met het informeren van eigenaren van kantoorpanden over deze regelgeving?

R: Ja

I: En op welke manier leveren jullie deze informatievoorziening

R: We hebben eerst een inventarisatie gemaakt van alle kantoren die we hebben. Daar gaat het voornamelijk om echte fysieke kantoorgebouwen en die worden schriftelijk benaderd door ons.

I: Dus dat is door middel van een brief?

R: Ja

I: En wat voor informatie staat daar in?

R: In die brief staat eigenlijk dat die wettelijke verplichting er aan komt en dat zij door het treffen van maatregelen, zoals het vervangen van verlichting of het verbeteren van de isolatie, het energielabel naar minimaal C kunnen brengen. Maar natuurlijk streven wij naar A.

I: Zijn er met de overheid afspraken gemaakt wat daarin de rol van de gemeente is?

R: Door de overheid is er gevraagd of wij kantoorpand eigenaren die niet voldoen aan de regelgeving actief willen benaderen

I: Vanaf wanneer is het jullie gevraagd om actief te gaan informeren?

R: Het is geen wettelijke verplichting om bedrijven actief te benaderen maar het is meer een verzoek vanuit de gedachte dat wij vanaf 2023 ook de toezichthoudende instantie zijn. Dus het is raadzaam om daar op voort te sorteren en bedrijven daar nu al in te informeren.

I: Is dat advies om te informeren ontstaan uit de nieuwsberichten dat veel eigenaren hier nog niet aan voldeden?

R: Nee, we proberen eigenlijk altijd bedrijven actief te benaderen. Daarin heb je de koplopers die uit zichzelf maatregelen treffen, de grote middenmoot die door middel van een brief actie onderneemt en de achterblijvers die vaak 3 of 4 brieven nodig hebben voordat ze iets doen

I: In welke gemeenten van Noord-Limburg zijn jullie op dit moment bezig met informeren?

R: In principe alle gemeenten. Maar het gaat hier vooral om de wat grotere gemeenten: Venlo, Venray, Weert, Roermond.

I: Dus bij de RUD informeren ze voor iedere gemeente in Noord-Limburg?

R: Nou in principe zijn de medewerkers van de RUD ook medewerkers van de gemeente, dus hier is het net iets anders geregeld dan in alle andere uitvoeringsdiensten in Nederland.

I: Is het doel van het verstrekken van de informatie om in 2023 minder werk te hebben met het reguleren?

R: Ja. Het gaat er niet zo zeer om minder werk te hebben maar we willen ook graag bewerkstelligen dat er minder grijze energie gebruikt wordt.

I: Welke partij is dan uiteindelijk verantwoordelijk voor de handhaving?

R: Dat zal ook de RUD zijn, maar dan moeten ze wel de opdracht van de gemeente krijgen om dat te doen en ik kan me voorstellen dat niet iedere gemeenten zit te wachten op het handhaven van het energielabel. De gemeente zijn verantwoordelijk om het beleid te handhaven maar dat betekent in dit geval dat er geld over de brug moet komen en dat zullen ze liever aan iets anders besteden dan het handhaven van energielabels

I: Dus u denkt de gemeenten niet het geld willen uitgeven om actief te handhaven

R: Nou, ik denk dat de meeste gemeenten uiteindelijk wel mee zullen doen maar ik denk ook dat er gemeenten zijn die denken: voor ons is het niet zo spannend, laten we dat nog maar even niet doen

I: Dat zal dan misschien pas op een later moment zijn dan 1 januari 2023

R: Ja precies, ze zullen zich uiteraard eerst concentreren op de grote gemeenten omdat daar ook de meeste kantoorgebouwen liggen. Bij de kleinere gemeenten zullen ze op 1 januari echt nog niet op de stoep staan, dat zie ik echt niet gebeuren

I: Oke, en dat proces van handhaving en reguleren hoe ziet dat er precies uit?

R: Wij kunnen in principe zien welke kantoorpanden een energielabel hebben en hoe hoog die is. Dus ook de kantoren die hier niet aan voldoen of die überhaupt geen label hebben.

I: Wordt een pand dat niet voldoet dan gelijk gesloten?

R: Ze zullen allereerst actief benaderd worden en daarna gewaarschuwd worden om binnen een bepaald termijn te voldoen aan de regeling. Op het moment dat eigenaren dan blijven weigeren zal het vervolg afhangen van de desbetreffende gemeente. Er zullen gemeenten zijn die gelijk een dwangsom opleggen en er zullen gemeenten zijn die een tweede en derde waarschuwing sturen.

I: Dus op het moment dat panden nog niet voldoen in 2023 zullen ze nooit meteen gesloten worden?

R: Die kans is heel klein

I: Merkt u dat de RUD zich veel bezighoudt met duurzaamheid of houden ze zich meer bezig met andere dingen?

R: Er is zeker wel aandacht voor maar er zijn dingen die belangrijker zijn. Heel simpel, energiebesparing wordt steeds belangrijker maar wethouders vinden de externe veiligheid een stuk belangrijker omdat dat hem zijn kop kan kosten. Als een pand niet voldoet aan een energielabel worden inwoners daar niet warm of koud van. Veiligheid heeft een hogere prioriteit dan energiebesparing, wat ook logisch is. Alleen is veiligheid belangrijk op de korte termijn en energiebesparing belangrijker op de lange termijn.

I: Hoort u wel eens ontevreden geluiden over subsidies

R: Nou, uiteindelijk levert energiebesparing de eigenaar iets op. Ze zullen altijd moeten investeren, maar die worden binnen 5 jaar terugverdient. Als je dat tegen bedrijven zegt willen ze vaak eerst niet investeren maar als ze het geld hebben liggen krijgen ze meer rendement dan als het bij de bank ligt. Vaak moet je ze hiermee helpen omdenken.

I: Dus u merkt dat deze financiële investering in eerste instantie als barrière werkt maar daarna als driver wordt gezien.

R: Ja, je moet ze echt helpen om te motiveren. Vooral de grote middenmoot moet je helpen informeren over de opbrengsten. Hoe enthousiaster wij doen, hoe enthousiaster zij zijn.

I: Wat denkt u dat de hoofdoorzaak is van het feit dat begin dit jaar nog relatief veel kantoren niet voldeden aan de regelgeving?

R: Dat er te weinig aandacht voor is. De afgelopen twee jaar heeft al het nieuws in het teken gestaan van corona dus energie en duurzaamheid heeft op een laag pitje gestaan.

I: Dus u noemt de invloed van corona toch wel als belangrijke factor in dit verhaal?

R: Nou, ik denk dat de media aandacht verplaatst is van duurzaamheid naar corona terwijl nu het duurzaamheids verhaal weer steeds belangrijker wordt

I: Ervaren jullie de manier waarop jullie eigenaren van informatie voorzien als de juiste?

R: Je kan op twee manieren kijken, je kan iedereen van de informatie voorzien en vanaf 2023 hard handhaven, maar als je mensen persoonlijk benaderd zullen ze sneller enthousiast worden, waardoor ze sneller verder zullen gaan dan wettelijk verplicht is. Dus ik denk uiteindelijk dat het milieu het meest gebaat is bij deze persoonlijke benadering maar als die manier niet werkt zullen we toch streng moeten handhaven.

I: Jullie hebben dus niet alle kantoorpand eigenaren benaderd?

R: Ze zijn nog niet allemaal benaderd, maar dat zal dit jaar wel nog gebeuren

I: Op welke manier denkt u dat dit proces verbeterd kan worden?

R: Ik denk dat bewustwording een hele belangrijke factor in dit proces is wat wij ook proberen te bewerkstelligen bij niet alleen kantoorpanden maar ook bij scholen en noem het maar op. Dit gaat projectmatig en branchegericht.

I: Dus u ziet eigenlijk op dit moment uw belangrijkste taak in het bewust maken van mensen

R: Ja