Regional capacity to govern the energy transition

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Regional capacity to govern the energy transition: The case of two Dutch energy regions

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ABSTRACT

In this paper we analyse how interactions between governing bodies influence Dutch energy regions’ capacity to govern the energy transition. We develop an analytical framework which draws on, and merges, two different theoretical perspectives: multi-level governance and capacities for transformative climate governance. We apply this framework in an exploratory case study of the Dutch energy regions Holland Rijnland and Noordoost Brabant. Results are primarily derived using a set of interviews and desk study. Aided by the framework, we find that, while the Regional Energy Strategy (RES) arrangement is clearly geared towards facilitating orchestration through coordination and exchange of ideas and standpoints, the current governance approach, is hindered by unclear and ambiguous roles and responsibilities, a referral back to and dependence on traditional hierarchical structures, and high transaction costs. These interactions negatively influence capacity development in the regional energy transition by complicating strategic alignment and the creation of opportunity contexts.

1. Introduction

To support societal transitions that are required to drastically reduce greenhouse gas emissions (2018; Wieczorek and Berkhout, 2009), new forms of more proactive, transformative, climate governance are needed (Bulkeley and Betsill, 2005; Holscher et al., 2019). Top-down hierarchical approaches in which rules, decisions and norms are passed down the chain of command, have, in recent years, been replaced or complemented with more networked arrangements whereby interactions transcend traditional governance levels, actions are decentralised, and authority is increasingly dispersed (Betsill and Bulkeley, 2006; Cole, 2010; Goldthau, 2014; Jordan et al., 2015). These arrangements better fit transformative climate governance because they acknowledge a multi-scalar and multi-level character of the problem, and recognise that the role of the central government is gradually shifting from ‘rowing’ towards ‘steering and facilitating’ (Capano et al., 2015).

In 2019, following several pilot projects in the Green Deal Regional Energy Strategies, the representative bodies of the Dutch subnational governments1 in collaboration with the Dutch government initiated the Regional Energy Strategy (RES) programme as part of the Dutch Climate Agreement to steer the energy transition towards a more decentralised and renewable system. In this programme, different governance bodies representing multiple governance levels (a.o. municipality, province, central government) collaborate to accelerate regional energy transition (RET). Because of their geographical proximity, actors within the region, thirty of

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1 These bodies include the umbrella organisations of Dutch municipalities (VNG), Dutch provinces (IPO) and Dutch Water Authorities (UvW).
which have been established in the Netherlands, can better access local knowledge and share it with actors operating at other governance levels. They can thus act as facilitators of dialogue while retaining the ability to operate strategically (Gordon and Johnson, 2017; Hodson et al., 2013). Consequently, local governments can act as intermediaries and coordinate action not only between public and private actors, but also between governance levels and thereby accelerate sustainability transition within their geographical areas (Aall et al., 2007; Bulkeley, 2015; Hoppe and Miedema, 2020).

The multi-level interactions however are not easy. Earlier research identifies numerous obstacles that effective transformative climate governance faces when involving a networked approach (Bache et al., 2015; Cash et al., 2006; Leck and Simon, 2013; Marsden et al., 2014; Smith, 2007). Examples of these barriers include: a mismatch of priorities and goals, insufficient cooperation between jurisdictions, lack of accountability among governance actors, insufficient financial and human resources, inadequate regulatory frameworks, and knowledge asymmetries. These factors impede coordination and alignment of governance processes across hierarchical levels (i.e. municipality, province, central government) and are referred to as coordination problems.

The governance literature that aims to study these coordination problems between the various levels of jurisdiction, uses the concept of multi-level governance (MLG) (Bache et al., 2016; Hoogehe and Marks, 2003; Piattioni, 2010). However, despite previous contributions on MLG in transitions (Coutard and Rutherford, 2010; Cowell et al., 2017; Liu and Lo, 2021; Rohlhacer and Spath, 2014; Smith, 2007; Spath and Rohracher, 2012; Spath and Rohracher 2010), the sustainability transitions literature still lacks conceptual clarity about how to unpack the MLG complexity in relation to (systemic) capacity development for effective transformative climate governance in the context of energy transition. Voß and Bornemann (2011) argue that this lack of capacity often results in power issues, conflicts, and clashing interests across multiple levels, but in the literature the topic of necessary governance capabilities and competences needed to steer sustainability transitions is largely being ignored. Similarly, little research is carried out on this topic from a regional perspective. Although some scholars have focused on the urban context (e.g. Bulkeley and Betsill, 2005; den Exter et al., 2015), the regional context is where the coordination of implementation processes to achieve climate targets (through transitions) is typically taking place. In this paper we therefore aim to fill in these gaps. The research question we address is:

*How do interactions between governance levels influence an energy region's capacity to govern the energy transition in the Netherlands?*

To answer the question, we mobilise insights from two fields of governance research: capacities for transformative climate governance (Hölscher and Frantzeskaki, 2020) and multi-level governance (Hoogehe and Marks, 2003; Piattioni, 2010). Drawing upon these insights, we develop an analytical framework that we apply in an exploratory case study of two energy regions: Holland Rijnland and Noordoost Brabant. By integrating an MLG typology with a framework of capacities for transformative climate governance (Hölscher et al., 2019), we aim to provide a conceptual contribution to the sustainability transitions literature and specifically contribute to conceptualising MLG in relation to capacity development for transformative climate governance in the context of energy transition.

The paper is organised as follows: Section 2 discusses the relevant theoretical concepts and presents an analytical framework. Section 3 outlines methodological steps. Section 4 reports on the interactions between governance bodies and discusses the region’s capacity for transformative change. Section 5 reflects on these interactions and their influence on capacity building for governing the energy transition. We conclude with Section 6.

2. Theory

2.1. Regional energy transition governance

The question of how to steer radical change for sustainability is increasingly addressed using a sustainability transitions perspective (Grin et al., 2010; Köhler et al., 2019). Transitions are understood as a change from one socio-technical system to another resulting from the interplay of multiple processes along many dimensions, such as technological, economic, institutional, cultural, political and organisational (Geels and Kemp, 2000; Geels, 2005). The energy transition has received particular attention and is also widely addressed by policymakers as one of the greatest societal challenges (2018; Kern and Smith, 2008; Markard, 2018).

The governance of sustainability transitions, such as the energy transition, requires addressing complex transformation dynamics through specific capabilities and competences. In transition studies, two approaches that take account of the complex multi-level system dynamics involved in the governance of transitions are reflexive governance (Voß et al., 2006) and the more practice-oriented transition management (Loorbach, 2010; Rotmans et al, 2001). These systemic approaches build on the premise that governance of transitions is part of the problem structure rather than being “an external supervisor and navigator of social change” (Voß and Bornemann, 2011, p. 1). This implies the need for reflexive governance arrangements and actors capable to cope with the complex system dynamics. It also requires continuous learning and a focus on establishing interactions and communication between multiple steering processes and actors across levels. Several studies in the field of transition studies discuss how ‘new’ network-based governance approaches can contribute to addressing these needs, particularly in early phases of transitions where uncertainty, open-ended learning, network building and niche development are dominant characteristics (see e.g. Geels et al., 2015; Khan, 2013).

Due to the structure and impact of national policies, governance in transitions studies has for long been considered from a national perspective (Markard et al., 2012). There are also a few studies focused on transition governance in urban contexts (Bulkeley et al., 2011; Coutard and Rutherford, 2010; Hodson and Marvin, 2010) but studies at the regional scale are scarce (Becker et al., 2016). Recently, the region became popular as part of the spatial discussions on sustainability transitions (Coenen et al., 2012; Hansen and Coenen, 2013). These studies emphasise that the emergence and pace of sustainability transitions are influenced by two factors: place-based factors such as institutional settings, local cultures, social networks and particular infrastructures of resource endowment (Köhler et al., 2019), and transnational linkages (Wieczorek et al., 2015). A limited number of studies on the governance of the energy
transition from a regional perspective can be found. For instance, Hoppe and Miedema (2020) study the energy regions in the Netherlands as the locus to solve inter-municipal issues of the energy transition. Spåth and Rohracher (2010) and Sedlacek et al. (2020) study multi-actor governance processes within Austrian energy regions. Furthermore, energy transition governance is studied from a regional perspective within the fields of human geography (Bouzarovski, 2009; Bridge et al., 2013) and political science (Kern and Alber, 2009; Kern and Bulkeley, 2009). These regions, however, are at the scale of multiple countries or metropolitan regions rather than multiple municipalities, which is the scale of the Dutch energy regions studied in this article.

2.2. Capacities for transformative climate governance

While approaches for transition governance acknowledge the need for coordination of multi-actor processes across levels, they do not offer a comprehensive perspective on the conditions and activities required to align these actors in the context of a networked governance landscape such as the RES arrangement. Hölscher et al. (2019) provide such an analytical focus by defining a framework of capacities for transformative climate governance. Transformative climate governance is defined as “the processes of interaction and decision-making by which multiple actors seek to address climate mitigation and adaptation while purposefully steering societies towards low-carbon, resilient and sustainable objectives” (p. 792). The framework encompasses: (i) four capacities needed for effective governance of transitions: stewarding capacity, unlocking capacity, transformative capacity and orchestrating capacity, and (ii) a number of underlying conditions for each of these capacities. As this paper focuses on the interactions between multi-level actors, and given their coordination problems, we mainly discuss orchestrating capacity.

2.2.1. Orchestrating capacity

Orchestrating capacity refers to “the abilities to coordinate multi-actor processes and foster synergies and minimise trade-offs and conflicts across scales, sectors and time” (Hölscher et al., 2019, p. 796). The need for coordination is stressed by the dispersed nature of the climate governance landscape across scales and levels (Betsill and Bulkeley, 2006). Different strands of literature discuss aspects of the orchestrating capacity. In climate governance literature, orchestration refers to the efforts to align actors across scales and levels with publicly agreed goals and international processes (Abbott et al., 2015). In sustainability transition and resilience studies the focus is on creating spaces for intermediation and the role of intermediaries and strategic alliances in integrating resources and developing shared visions across multiple governance levels (Hodson et al., 2013; Kivimaa et al., 2019). Enabling these roles and practices allow for knowledge sharing and social learning, essential factors that drive transformative change towards sustainability (Smith and Stirling, 2010).

Three conditions enable orchestrating capacity (Hölscher et al., 2019). The first is the strategic alignment of actors within the governance landscape. It provides direction and clarity across governance levels necessary for collective steering of transformative change. Three activities create this condition: the creation of shared long-term strategies across levels and departments, enlisting and engaging heterogeneous actor groups, and integrating these strategies in processes.

Second condition is mediation across scales and levels, which facilitates knowledge sharing and interactions across levels. Activities that create this condition include creation and facilitation of networks and communication channels, the integration of resources across levels, and creation of connection nodes (e.g. through process coordinators).

Third condition is creation of opportunity contexts. It creates institutional conditions and designs that enable the implementation of strategies and assists actors across levels in enhancing their ability to steer towards sustainability. Activities for this condition include long-term thinking, the provision of institutional designs (e.g. financial incentives, regulations), and the creation of action mandates and a prioritisation of action and fields.

2.3. Multi-level governance (MLG)

Multi-level governance (MLG) insights are particularly useful to unpack the interdependencies and interactions between and across governance levels. It captures both the vertical interactions between different territorial levels and horizontal interactions between governments and non-governmental actors (the growing network of actors). MLG offers a useful typology by which governance arrangements for the energy transition can be studied. Hooghe and Marks (2003) brought together two visions of governance to define two ideal types of MLG through which a multi-level governance arrangement can be structured. Type I MLG relates to the more conventional federalist governance levels defined by a hierarchical structure and limited number of levels of government. Each level has a general-purpose jurisdiction over a given territory fulfilling a wide range of functions that do not overlap with each other (e.g. international, national, local). Each of the levels has a system-wide (i.e. supported by institutions and a court system) and durable architecture which is intended to be in place for at least several decades. The governance bodies in a type I arrangement are confined to one governance level.

By contrast, type II MLG is associated with more complex and fluid governance arrangements that are task-specific. These arrangements consist of a patchwork of jurisdictions, in which memberships overlap, and whereby governance bodies operate across scales and are not confined within a specific territory as policy externalities can go beyond specific governance scales. Type II arrangements are thus fragmented and network-based rather than confined to tree-based structures. Moreover, the arrangements are flexible depending on citizen’s functional demands for governance change. Type II structures can be created and initiated by type I state legislatures but also by regional governance initiatives and by citizens through e.g. petitions. This means type II structures are not necessarily durable and may exist only for a limited time. The number of jurisdictions and governance bodies can potentially be huge, as a wide range of specific tasks can be addressed whereby costs and benefits are internalised effectively. Arrangements can also take
the form of networks or boards consisting of both government and non-governmental actors.

Hooghe and Marks (2003) further argue that the two types can be related with different forms of political mobilisation. Type I MLG relates to a ‘voice’ type of action whereby actors are confined within a governance level and governance is characterised by political deliberation and conflict articulation, while type II MLG relates to an ‘exit’ type of action as actors are free to choose which arrangements to participate in, whereby governance is characterised by freedom of choice between jurisdictions and competition. As Piattoni (2010) and Skelcher (2005) argue, type I MLG is nothing more than the conventional nation-state. Arrangements are defined by formal authority, hierarchy and through democratic pathways whereby representatives are elected by the people. As a result, mechanisms for legitimacy, consensus and accountability rely on formal structures and roles that represent community values.

On the other hand, type II MLG does not rely on formal rules, roles and norms. Type II arrangements are often embedded in type I structures, but their specific relation is not defined by a general blueprint. Its structures are mainly bound by interpersonal relations and network building rather than by formally defined relations, which are features of networked governance. Legitimacy leans on the effectiveness of its management to address policy issues (Piattoni, 2010).

The multi-level governance arrangement, consisting of type II arrangements embedded in a type I arrangement, is visualised in Fig. 1 and provides a conceptual understanding of multi-level interactions between governance bodies operating within different governance arrangements.

2.4. Analytical framework and operationalisation

Based on the presented concepts, this paper proposes an analytical framework that connects elements of the two constructs in the context of broader RET governance. Fig. 2 visualises how the regional capacity to govern the energy transition manifests in the form of four governance capacities. As discussed in the previous sections, orchestrating capacity will be the analytical focus in this framework. The framework shows how orchestrating capacity is created by a number of governance conditions that are outcomes of interactions between governance bodies within the governance arrangement of the RES. Tables 1 and 2 show how the framework will be operationalized.

3. Research design and methodology

3.1. Introducing the regional energy strategy (RES)

The RES programme has been initiated as part of the Dutch Climate Agreement in 2019 with a threefold aim: (i) to contribute to reaching Dutch renewable electricity targets for 2030, specifically reaching a national target of 35 TWh to be produced by windmills and large-scale solar PV on land, (ii) to implement the transition to a sustainable heat supply in the built environment, and (iii) to facilitate the necessary storage- and energy infrastructure.

The programme is based on several pilot projects that had been initiated by the representative bodies of the Dutch subnational governments as part of the Green Deal Regional Energy Strategies (Akerboom, 2019). With the introduction of the RES programme, the spatial planning of renewable electricity has been shifted to the regional scale through the creation of thirty so-called energy regions comprising of multiple municipalities, a provincial government, one or more water authorities and a distribution system operator (DSO). Before its establishment, spatial planning of renewable electricity projects was organised through two avenues, (i) a classical decentralised approach according to the principle of subsidiarity prioritising implementation through municipal policy, or (ii) implementation of projects considered of national importance aiming to accomplish national wind energy targets of the Energy Agreement of 2013 (Akerboom, 2019). This latter approach has been heavily criticised as it proved to be ill-suited for organising citizen participation (Broring and Tollenaar, 2015). The RES programme could be seen as a response to these critiques as it has shifted the focus of spatial planning of renewable electricity to the regional scale, whereby citizen participation has gained more importance.

In essence, the RES programme’s function is threefold (Ministerie van Economische Zaken en Klimaat, 2019). Firstly, the RES is a product in which each region describes which renewable electricity targets (using wind and PV on land) it aims to accomplish within a certain timespan. Secondly, the RES is considered an important instrument to organise the spatial planning of renewable energy with close involvement of societal partners including citizens. Thirdly, the RES is seen as a new approach to organise long-term regional collaboration between the decentral governance bodies (provinces, municipalities, water authorities and the distributed system operator) aimed at organising regional renewable electricity implementation. For the sake of clarity, the remainder of this article refers to ‘RES’ as the first function (product), while the ‘RES arrangement’ refers to the third function (collaboration).

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2 It has to be noted that governance bodies do not necessarily fit within defined governance levels, but rather participate in type I or type II governance arrangements depending on the task they aim to pursue. For instance, municipalities, as they pursue renewable electricity targets in the context of the RES, participate both in a type I governance arrangement and a type II arrangement by interacting with other actors.

3 It has to be noted that each of the participating governance bodies take different roles in this collaboration. For instance, the DSO’s role is to mainly provide knowledge concerning the electricity grid in order for the municipalities to make adequate decisions on renewable electricity implementation, while the province can take various roles, including a regulatory role as well as a role of knowledge broker.
Fig. 1. Visualisation of the multi-level governance arrangement. The cylinders on the right represent various type II arrangements, while the squares on the left represent the type I arrangement. The figure shows the interactions between governance bodies operating at different governance levels, whereby interactions take place both within the type I arrangement (dashed arrows) and between the type I and type II arrangements (solid arrows).
3.2. Case selection and description

The methodology concerns a multiple case study design studying two energy regions to critically explore how capacities for transformative governance develop in a multi-level governance context of the energy transition, and to reflect on the suitability of the
framework to answer the research question. Following a maximum variation logic (Patton, 2002) to deal with the “many variables, small N” problem (Lijphart, 1971), two energy regions were selected based on their variance in three key characteristics that are relevant to the analysis of governance. These characteristics are assumed to influence the interactions between governance bodies within the region: the degree of collaboration, number of municipalities, and the regulatory role of the province. The degree of collaboration was evaluated through the embeddedness of the RES organisation in existing regional collaboration structures (i.e. to what extent parts of existing regional collaborative governance bodies fulfilled tasks related to the RES organisation). Here, strong embedding was seen as an indicator for a high degree of regional collaboration. The spatial restrictions by the province refers to the extent to which the province has a restrictive spatial policy with regards to renewable energy implementation. Table 3 shows the variance between each of these characteristics for the two energy regions selected: Holland Rijnland and Noordoost Brabant.

Holland Rijnland (HR) is a region in the South of the province of Zuid-Holland (see Fig. 3). The region has a population of more than 550,000 and covers 481 km², resulting in a population density of 1.179 inhabitants per km² (CBS, 2020). The region is for a large part situated within the protected area of the Green Heart. Currently, the province of Zuid-Holland restricts any renewable energy installation in this area (Provincie Zuid-Holland, 2014). The two largest municipalities in terms of surface are Alphen aan den Rijn (133 km²) and Nieuwkoop (91 km²). HR is a governance collaboration of thirteen municipalities which has been working together in many domains such as housing, labour and sustainability. Since 2015, HR has collaborated in the domain of energy. The region defined an Energy Agreement which sets out regional targets in several energy domains such as electricity, the built environment and mobility.

Noordoost Brabant (NB) in the province of Noord-Brabant is one of the largest energy regions (see Fig. 3). It counts more than 600,000 inhabitants and covers over 1,200 km², translating to a relatively low population density of 492 inhabitants per km² (CBS, 2020). The region has seventeen municipalities, of which Meijerijstad (184 km²) and Oss (163 km²) are largest in terms of land surface. The regulatory role of the province is limited for the region; the province does not impose significant legal restrictions with regards to spatial planning of renewable electricity facilities (Provincie Noord-Brabant, 2014). Prior to the establishment of the RES arrangement, municipalities collaborated in several areas such as economy and mobility. However, in contrast to HR, the organisation of the RES has been created independently of these collaborations. Consequently, the RES arrangement is not strongly embedded in a regional collaboration structure.

3.3. Data collection

Data collection about type I and type II indicators and conditions was done by means of grey literature review (policy documents, websites, reports, bills, specialised articles) and semi-structured in-depth interviews, complemented by direct observations (attending relevant events about governance of the energy transition).

Type I and type II arrangements in the energy region were identified using indicators (Table 2). Interactions between governance bodies in the energy regions were characterised based on 20 interviews with representatives of regional governance bodies: the municipalities, DSO, RES representatives, province, water authorities, and central government including its national coordination body (NP RES). Interviewees were asked about their relationships and interactions with other governance bodies within the region, and what governance activities were carried out. The interviews were semi-structured using a protocol containing open-ended questions (see Appendix A) to allow interviewees to freely express their viewpoints (Flick, 2009).

Key selection criteria for interviewees included: their close involvement in and knowledge of the RES (see Appendix B). Interviewees were contacted via e-mail or via other interviewees. The regional programme coordinator often helped and served as ‘gatekeeper’. Interviews were conducted face-to-face (18) and by phone (2) in the period from September 24, 2019 and February 13, 2020. Follow-up questions and additional documents were exchanged via e-mail.

3.4. Data analysis

The interviews were recorded, transcribed verbatim and anonymised. The transcripts and literature were coded using Atlas TI software, guided by the analytical framework and its operationalisation.

For the governance arrangements’ analysis, codes were categorised using indicators presented in Table 2. The analysis of the interactions between governance bodies was performed based on several themes that emerged from the data analysis of interview transcripts. The analysis of the conditions for orchestrating capacity and categorisation of codes was based on the use of indicators (Table 1) and the extent to which the governance activities were carried out and by which governance bodies and actors. Interpretation of the data involved a reflection on how the governance activities were created as an outcome of the interactions between governance bodies.

4. Results

4.1. The RES arrangement

In the RES arrangement, decision-making is not merely divided in a hierarchical type I fashion across three non-overlapping
governance levels (i.e. central government, province, municipalities), but it has become a collaborative effort and shared responsibility of multiple governance bodies (municipalities, province, the water authorities and DSO) operating across levels (NP RES, 2019). In both HR and NB, the organisational structure of the RES arrangement consists of the following governance bodies (Holland Rijnland, 2019; regio Noordoost Brabant, 2019):

- A steering group comprising representatives of the municipalities, province, DSO and water authorities.
- A support team comprising policy officers, a process coordinator, supporting staff and several experts.
- An advisory board consisting of several non-governmental stakeholders such as energy cooperatives and housing corporations.

In terms of jurisdictions, the region itself does not have legal powers for the actual implementation of decisions made within the RES arrangement and therefore it cannot be regarded as a formal jurisdiction (Akerboom, 2019). Legal powers remain within the non-overlapping and general-purpose type I jurisdictions (art. 123 Grondwet 2018; Van der Linden and Akerboom, 2018). This makes the RES a task-specific governance arrangement that is embedded in the three-layer type I jurisdictions. As mentioned in section 3.1, the regions have been given the flexibility to organise the RES according to their own preferences. In other words, no prescribed recipe has been handed out to the energy regions. The flexibility concerns, among others, the number and type of stakeholders to involve in decision-making, and the sectoral scope (NP RES, 2019). Both HR (mobility and energy savings) and NB (climate adaptation) have included topics beyond renewable energy production and the built environment (Holland Rijnland, 2020; Noordoost-Brabant, 2020).

### Table 3
Variation in characteristics of selected energy regions.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Holland Rijnland</th>
<th>Noordoost Brabant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative degree of regional collaboration</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Number of municipalities</td>
<td>Thirteen</td>
<td>Seventeen</td>
</tr>
<tr>
<td>Spatial restrictions by province</td>
<td>Strong</td>
<td>Soft</td>
</tr>
</tbody>
</table>

**Fig. 3.** Map of the two energy regions Holland Rijnland (1) and Noordoost Brabant (2). The grey lines represent the jurisdictions of the municipalities in the Netherlands. Adapted and retrieved from Ministerie van Binnenlandse Zaken en Koninkrijksrelaties (n.d).
Regarding political mobilisation, the RES arrangement predominantly shows features of an ‘exit’ type arrangement. In the RES arrangement, there are no institutional and formal mechanism to deal with conflicts. Rather, the process of solving conflicts takes place in a network-based way through negotiation, collaboration and commitment (Akerboom, 2019). When conflicts arise, municipalities retain the possibility to withdraw from the RES collaboration and refer back to their type I devices. Consequently, decision-making is based on conflict avoidance rather than conflict articulation. In both HR and NB this type of decision-making was observed, whereby difficult and highly conflicted decisions were being postponed or excluded from the RES arrangement (i1, i3, i10).

Finally, in terms of structure the RES arrangement is based on the idea of operating as ‘one government’ whereby multiple governance bodies operating at multiple levels are ‘blended’ together to collectively address RET (NP RES, 2019). The arrangement can be characterised as a networked structure in which collaboration takes place with more fluid and networked roles of governance bodies, based on the principle of equality rather than hierarchy (NP RES, 2019). Formal responsibilities, however, are hierarchical, whereby the central government or province retains the power to shift responsibilities from the municipality to the province or to the central government (art. 3.26 Wet ruimtelijke ordening 2006; Van der Linden and Akerboom, 2018). These powers may, for instance, be exercised in case the combined RES targets do not add up to the national target of 35 TWh, making intervention by the central government or province justified (art. 3.26 or art. 3.28 Wet ruimtelijke ordening 2006).

The features of the RES make up a networked governance landscape, which is visualised in Fig. 4.

4.2. Interactions between governing bodies

Based on coding, the following four themes have been identified: high transaction costs, type I mentality, conflicting interests at various levels, and ambiguous roles.

4.2.1. High transaction costs

Interactions between representatives of the energy region’s municipalities take place within the regional steering group and within the regional programme team.

As the region is not a formal jurisdiction, collective regional decision-making requires commitment by each individual municipality (i1, i2, i3, i4, i8, i10).5 A number of interviewees emphasised the importance of gaining support from each municipality for regional decisions as, without all municipalities on board, the creation of a RES would become problematic (i1, i4, i8, i10). In practice, this means that the representatives within the steering group continuously interact and deliberate not only between each other within the energy region, but also within their respective municipal jurisdictions to ensure municipal support for regional decisions. One interviewee in HR describes this continuous process of interaction as follows:

“Policy officials who represent municipalities participate in regional meetings. In these meetings the policy officials agree within the regional governance body on which measures are required within the energy region. Subsequently, each official has to go back to their own (municipal) governance body where the decisions made at the regional level have to be discussed again. And there a lot of decisions strand. This has to be discussed again at the regional level. It is a continuous game that is being played.” (i4)

This ‘game’ of interactions is also seen in NB where the Regional programme coordinator explained that municipal representatives need to get feedback by their municipality council every time before regional decisions are being made (i8).

4.2.2. Type I mentality

These interactions expose a tension between type I and type II governance, whereby municipalities tend to make decisions from a municipal perspective while a regional perspective is required (i1, i2, i4, i8, i11, e1, e2). The tension between the two perspectives (municipal and regional) became apparent in NB where a regional vision for renewable energy implementation was presented within the steering group. This regional vision was confronted with significant resistance from the municipalities as they are reluctant to shift control to the regional level (i11, i13). Confirming this tension, different interviewees explained that municipalities generally find it difficult to voluntarily shift responsibilities to the energy region as they want to keep control of renewable energy implementation within their own jurisdiction. One interviewee noted:

“In the past, the municipalities were doing their own thing on separate islands and now (through the RES arrangement) they are forced to collaborate. Some municipalities find this difficult. And this is rightly so, because sometimes there are different administrative cultures, conflicting interests, name it.” (i2)

As a result, a type I mentality remains dominant within the energy regions (i1, i2, i3, i5, i8). In NB, one of the municipal representatives explained that municipalities have to be confronted by the limits of their own jurisdiction to able to recognise the need for regional collaboration: “municipalities have to hit the wall to realise they cannot do it alone” (i11). In HR, an interviewee indicated that in regional meetings municipalities “often hide behind old (type I) structures” as they emphasise that it is the municipalities who reign over their jurisdiction and not the energy region (i1).

5 i1 refers to interviewee 1, i2 refers to interviewee 2, and so forth (see Appendix B).
4.2.3. Conflicting interests at various levels

From this dominant type I perspective, the municipalities participate within the regional steering group to define a RES and to assign renewable energy (solar PV and windmills) between their jurisdictions. As no ‘rules of the game’ (that is, no formal division mechanisms and clear division of responsibilities) are in place, a space of negotiation is created in which municipalities behave strategically, especially if interests are highly conflicted (i2, i3, i4, i5, i6, i10, i11, i12). One of the interviewees described these negotiation rounds as being sometimes highly unstructured meetings where emotions of policy officers occasionally run high (i8). Due to a lack of hierarchical relationships, there is no policy officer within the steering group who is able to impose any decision on others. Consequently, the interviewee explained that “the only thing we can do is to argue with each other and try to convince each other. In this process, some municipal policymakers are more dominant than others, often resulting in tensions during these meetings” (i8).

Another representative explained that the strategic behaviour displayed in these negotiations is characterised by municipalities’ reluctance to make significant concessions (i3). At the same time, some municipalities have limited potential for renewable energy production within their municipal jurisdiction (e.g. due to geographical constraints and legal restrictions), which makes their contribution within the region limited even if a municipality is ambitious towards producing more renewable energy (i2, i8, i9).

Next to these geographical constraints, the conflicting interests are to a large extent political (i4, i8, i10, e1). Policymakers are being cautious about committing to regional decisions as they are aware of the sentiment of their electorate. This awareness is illustrated by one interviewee who explained that “policymakers are definitely not going to make significant regional commitments just before the elections” (i8). Policymakers are generally worried about losing support as there is often significant opposition among inhabitants against renewable energy, especially in case a municipality has to produce renewable energy for its neighbours without having a clear benefit (i10, i11). Moreover, some municipal representatives explained they are left no negotiation space by their municipal coalition as their coalition agreement restricts renewable energy within a large part of their jurisdiction (e.g. because it is considered of ‘great natural value’) (i4, i5, i6, i10). In the case of HR, many municipalities take this stance, which makes reaching a regional consensus difficult (i3, i4, i5).

The conflicting interests are paraphrased by one interviewee in NB:

“There are municipalities who say: ‘We do not want the horizon and landscape spoilt and we do not want large scale solar fields as it ruins our landscape and valuable agricultural land.’ Others say: ‘We do not accept to generate renewable energy for others. It is a shared responsibility (within the region). I am not going to say to my inhabitants that I have accepted that other municipalities are not making their contribution.’ Finally, there are municipalities who say that they cannot move due to their coalition programme which restricts renewable energy. There you have the complexity of the RES in a nutshell.” (i10)

In HR, the ambiguous situation created space for negotiation in which interests between municipal and regional representatives on the one hand, and the province on the other, are highly conflicted (i5, i6). Here, the province’s unclear stance regarding its restrictions makes the creation of a RES problematic as intervention by the province in the regional plans remains likely (i3, i6). A number of interviewees indicated that, so far, the province turned out to be inflexible regarding spatial planning (i3, i5). They noted that the province takes a hard line in most cases, despite calls from the municipalities to revert its restriction (i1, i3, i5). Consequently, this leaves some municipalities that are situated in restricted areas, such as the Green Heart, without any possibilities for renewable energy.
In contrast to HR, in NB the interests between regional governance bodies and the province are relatively well aligned. A representative of the regional steering group indicated that the province takes a flexible and facilitating role in its participation within the regional steering group. Moreover, an interviewee pointed out that “in case we (as a region) make decisions that are in conflict with the province’s interest, they will indicate so and sometimes they will allow for these decisions to go through” (i8).

### 4.2.4. Ambiguous roles

Representatives of the province are involved in regional decision-making through their participation in the regional steering group and the regional programme team. According to provincial representatives, the role of the province within the energy region is twofold (i2, i9). First, the province participates as an equal partner in the regional steering group, taking a facilitating role (i2, i9, i10). In this role, the province for example supports the energy regions in doing research (i2, i5). Also, the province can act as a mediator within the energy region in case misalignment between municipalities within the region impede the RES process (i9). Second, the province takes part in the steering group to represent the interests of the provincial level and its provincial responsibilities (type I). As part of these responsibilities, the province coordinates between the energy regions within its jurisdiction to ensure that the energy regions collectively implement sufficient renewable energy, while at the same time ensuring the regions comply with the spatial criteria defined by the province (i9, i10). In this role, the province emphasises and communicates to the energy region which spatial criteria and regulatory boundaries apply for renewable energy implementation in the region.

A number of interviewees explained that these two roles often do not align as they provide unclarity about the position of the province within the energy region (i3, i4, i5, i6). This situation creates a tension between local policymakers and the province, which has become apparent in HR (i2, i5, i6). Here, questions were raised about the implications of the province’s restrictive spatial policy. One of the interviewees noted that questions were raised by regional policymakers about how to perceive these restrictions and about their implications for policy-making within the energy region: “Should these restrictions be perceived as dominant and definite or should they be perceived as the contribution of the province within the energy region as part of an equal playing field, whereby regional decisions can deviate from these provincial criteria?” (i16).

A representative of the province explained that the province is reluctant to provide more clarity, as the provincial governance body (Gedeputeerde Staten) struggles to find a balance between its roles:

> “On the one hand, the province wants a successful energy transition, to participate successfully within the energy region and to support municipalities and bottom-up initiatives, while on the other hand the province wants to protect the natural areas, such as the Green Heart.” (i2)

In NB, the tension between the region and the province of Noord-Brabant is less apparent, as the province’s spatial vision imposes a limited number of restrictions for renewable energy implementation within the region (i8, i9, i10). A number of interviewees indicated that these restrictions have been clearly communicated by the province and that these restrictions are not a significant barrier for renewable energy implementation (i9, i10, i11).

### 4.3. The region’s orchestrating capacity

#### 4.3.1. Strategic alignment

Strategic alignment comprises the definition of shared strategic direction, enlistment and engagement of heterogeneous actors, and linking strategic direction to ongoing processes. In both regions, this condition has been created by drafting the RES in a collective process involving multiple stakeholders. However, no shared consensus on implementation processes of the RES has been reached.

Both HR and NB have developed a first draft of the RES as an outcome of the negotiations between policy representatives within the regional steering group in the period between mid-2019 and mid-2020. In contrast to HR, where the regional targets have been translated from the regional Energy Agreement of 2017, NB has allocated specific shares of the regional target to individual municipalities. In HR, municipal policy officials agreed upon taking a regional perspective in which two scenarios towards 2030 were drafted. One is based on renewable energy implementation, mostly near existing infrastructure. The other prioritises local ownership, whereby renewable energy will be produced mostly by local actors (e.g. inhabitants, farmers, local businesses).

Throughout the negotiations, both regions actively engaged with several actors, including the municipal and provincial councils, the DSOs and the Water Boards, through various formal and informal activities (e.g. consultation meetings such as ‘Themacafe’s’ and one-on-one meetings organised by the process coordinator) (Holland Rijnland, 2020; Noordoost-Brabant, 2020). Given the early stages of the RES process, less attention has been paid to its translation into implementation processes at the different levels. As a result, these processes remain uncertain, which is stressed by one policy officer:

> “We are currently thinking about how to implement (regional plans). Will this remain the responsibility for municipalities themselves? Will two municipalities be working together on project basis? Or do you need to create a (regional) implementation programme with experts?” (i8).

Here, the interviewee noted that some municipalities will argue for the latter (regional implementation) while, on the other hand,

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6 Spatial restrictions in Noord-Brabant are mainly enforced by restricting solitary wind turbines (Provincie Noord-Brabant, 2014).
4.3.2. Mediating across scales and levels

Mediating across scales and levels includes brokerage and integration of resources, creation of convening space for knowledge exchange, and creation of connection nodes to optimise interactions. This condition has been created in both regions through several knowledge sharing activities and the creation of a coordinator role to facilitate interactions. However, integration of shared resources has proved to be insufficient.

While both regions aimed to collectively use financial resources to conduct shared activities, actual integration of these resources has been mostly insignificant (i1, i10). Moreover, according to one interviewee, a tension has been present among municipalities to share financial resources, despite it being a long-standing regional agreement:

“Some collective money has been reserved but it often is undetermined for what purposes this collective money has to be spend. Consequently, municipalities want to reclaim their contribution as they argue that the money is better spent locally rather than ‘collecting dust’ at the regional level.” (i6)

In terms of convening spaces, both regions have organised several activities that allow for active knowledge sharing, networking and conflict management (e1, e2). In addition to various informal knowledge sharing activities throughout the regions, several key platforms have been established where interactions and knowledge sharing takes place, including the regional steering group and various thematic working groups (Holland Rijnland, 2020; Noordoost Brabant, 2020).

In terms of connection nodes, the regional coordination serves as an essential link between the participating stakeholders across levels (i1, i2, i10). Their role is to coordinate, facilitate, stimulate interactions, as well as to manage conflicts between actors in the steering group:

“The process coordinator is someone who keeps the overview (in the region), who has the network, who knows the content and who knows what is happening at the national level. This person is the link between the region and NP RES and the national projects. Moreover, the coordinator knows which bureaus can provide the knowledge to assist the region.” (i2)

4.3.3. Creating opportunity contexts

Creating opportunity contexts involves the provision of institutional designs, prioritisation of actions, and incorporation of long-term and multi-scale thinking into policy processes. While several relevant activities have contributed to the creation of these contexts, no dedicated institutional designs that would enable prioritisation and creation of action mandates have been established.

While several guiding principles for renewable electricity implementation were established in both regions, it has not led to a clear prioritisation. A lack of a clear action mandate and conflict avoidance were mentioned as underlying causes:

“We have been working on making the (regional) plans more concrete since 2017. Municipal policymakers need to know what the regional ambitions entail for their own municipality. Important decisions are being postponed again and again.” (i2)

Similarly, while the involvement of different stakeholders such as the DSO and the province has stimulated long-term and multi-scale thinking, municipal policy officials tend to stick with a local and short-term perspective (i4, i6, i10, i15). This is articulated by one of the interviewees: “People find it hard to put off their ‘local glasses’ and to distinguish between different ‘hats’ when participating in the RES arrangement (that is, local versus regional thinking)” (i1).

One interviewee noted that one of the underlying factors is the absence of sufficient guidance and technical knowledge among municipal policy officials that is required to sufficiently consider the regional consequences of their local decisions. This particularly applies to the built environment, where the interviewee explained that, “there is the risk that technical solutions will be implemented that are not feasible at the regional scale” (i19).

At the same time different interviewees argued that the close involvement of the DSO in the region has led to a careful consideration of long-term (technical) implications of decisions made (i1, i5, i10). In both regions, the DSO assessed the impact of different scenarios on the electricity grid. The assessments have helped policymakers to identify the regional bottlenecks, thereby informing local and regional policymakers about the possibilities and feasibility of their plans (i7).

5. Discussion

The challenge of the energy transition, for which there is not one optimal solution that satisfies all stakeholders’ values, typically calls for a governance mode that is goal oriented yet flexible, not characterised by fixed roles and rules, and open to a range of (non-governmental) actors. By definition this fits the type II governance mode.

Our findings suggest that regional energy strategies fit in such a governance mode by:

- Promoting an active network culture, providing convening spaces that support knowledge sharing and facilitating conflict management at the regional level.
- Facilitating exchange of ideas that form the strategy without taking (too much of) a top-down approach.
- Setting up and allowing collaboration within the regional steering group to identify and communicate barriers and issues across various levels. This also stimulates multi-scale and long-term thinking.
However, there remains an inherent tension between type I and type II governance. Type II governance processes at the regional level are still misaligned with existing type I processes at the local and provincial level. One could argue that the RES-process is slow and not apt to being effective or efficient; there is much room for debate and discussion that does not lead to action. Effectiveness and efficiency are very strongly influenced by individuals who are willing to go beyond their defined roles, but if these individuals are in the minority the governance model gets bogged down by conflict avoidance mechanisms and unclear lines of accountability. If stakeholders retreat into their own sphere of influence and responsibility, there is reluctance to share financial or other resources as the benefits are only indirect. The dynamics of RES arrangement imply new roles and a different mode of working of type I actors, while still being bound by their formal duties and hierarchical positions. Type I actors derive clarity and guidance from their hierarchical position in the governance system. Boundaries are delineated and tasks are to a large degree specified, providing a more uniform approach to policy-making and problem solving.

The flexibility of the RES approach logically leads to regional differences. Not only does geography (e.g. the presence of protected areas) play a role, but as each set of individuals is unique and not guided by strict guidelines, some steering groups (are able to) take a more regional perspective. Also, the role of the province differs and depends on the ambitions of civil servants as well as politicians. Some (representatives of) provinces take an informational/networking role, while others try to steer the direction of the RES.

5.1. Strategic alignment

The logic of the RES arrangement asks of its participants to look beyond their own borders to the interest of their region and take responsibility for a shared task where the formal responsibility is missing; to align strategies and provide direction to ongoing processes. This shared responsibility is not necessarily new, as HR has shown that previous cooperative arrangements exist, leading to quicker trust and continued cooperation among policy officials and decision-makers. While individuals may not have worked together themselves, they tread the path of cooperation that already existed. Nevertheless, in the case of HR this has not led to easier negotiations due to the geographical constraints.

Interestingly, the move from type I to type II governance automatically ticks one of the indicators of “strategic alignment”, notably that of enlisting heterogeneous actor groups, by design. One could argue that the additional parties involved in the RES arrangement are still limited, but conversely they go well beyond the type I hierarchy.

5.2. Mediation across scales and levels

The whole logic of RES arrangement is to get together to mediate across levels – it is the very definition of type II governance. There are various elements of the RES arrangement to achieve this condition: a steering board with representatives from municipalities, policy officers, coordination officers. Each has their own role for mediation: these are all to some degree formal arrangements, with the goal of creating different types of interfaces at different levels within organisations.

Whereas knowledge and planning capacity is certainly shared through the RES, it remains very much a cerebral exercise: there seems to be a limited amount of integrating resources. Although again we see differences between the two regions: some careful form of financial pooling is present in HR, while NB’s is predominately dependent on the national sources. Conversely, the financial pool in HR remains a constant issue of discussion.

5.3. Opportunity contexts

In itself, the RES arrangement is an institutional design for synergy, but, as stated above, seems to be focused on cerebral activities. Limited specific policy instruments (such as financial or regulatory instruments) are explicitly given to the energy regions. While constituting members could in principle decide on providing such instruments to the energy regions, they tend to stick with their traditional type I devices.

A shared strategy also allows for shared approaches in tackling the energy transition. In this sense NB seems to be more successful than HR, which is mainly bogged down by spatial restrictions concerning windmills and solar fields. Prioritisation was not really possible, thus not leading to a shared agenda and subsequent actions.

In short, the installed energy regions do encourage and incorporate long-term, multi-scale thinking among its municipal and other members, but other than convening spaces, providing network and discussion of opportunities, and supporting municipalities with some technical advice, the members constantly have to refer back to their own type I mode of decision-making, thus not fully exploiting the orchestrating potential that the RES arrangement may have.

6. Conclusions

In this paper we have studied how interactions between governance bodies influence an energy region’s capacity to govern the energy transition in the Netherlands. Aided by the application of a novel framework, we find that, while the RES arrangement is clearly geared towards facilitating orchestration through coordination and exchange of ideas and standpoints, the current governance approach, is hindered by unclear and ambiguous roles and responsibilities, a referral back to and dependence on traditional hierarchical structures, and high transaction costs. These interactions negatively influence capacity development in the regional energy transition by complicating strategic alignment and the creation of opportunity contexts.

The analytical framework, by linking an MLG perspective with a systemic capacity perspective of Hölscher et al. (2019),
particularly showed its exploratory power by highlighting how various governance activities, as a proxy of orchestrating capacity, were created as an outcome of interactions between governance bodies. By doing so, the framework proved its suitability for unpacking complex governance dynamics and its influence on capacity development for effective RET governance. Moreover, we argue that the versatility of the framework allows for its application in governance contexts beyond the RES and beyond the regional scale. However, further refinement of the framework is recommended to study mechanisms of capacity development in relation to factors other than governance interactions. A suggested refinement would be to make explicit the different roles of public actors in relation to capacity development at a systemic level, thereby linking to the work on actor roles in sustainability transitions (see e.g. de Haan and Rotmans, 2018; Kivimaa et al., 2019; Wittmayer et al., 2017). Furthermore, the framework could be further strengthened by integrating the dimension of time, in order to study how capacities develop across different phases of the energy transition (Markard, 2018).

Whilst a detailed analysis of policy implications is beyond the scope of this paper, we suggest that major issues to address are the lack of awareness of the necessity for regional collaboration, the lack of engagement by various governance bodies, the lack of strong accountability mechanisms, as well as issues of democratic legitimacy. We thereby see an important role for the national government to provide region-specific guidance in finding the balance between setting clear scopes and lines of responsibility on the one hand and allowing for flexibility to tackle region-specific issues on the other hand.

Future research could take several avenues: conceptual, empirical and normative. Conceptually, one could shift the focus from a perspective of interactions influencing capacities to a view in which capacities themselves shape these interactions (e.g. through the establishment of new governance arrangements). In addition, the capacities framework could be connected to learning processes among actors. While this article only provided clues on how learning relates capacity building (e.g. through conflict articulation and alleviating knowledge asymmetries), focusing on how regional governance capacities emerge through learning processes could render valuable insights in the mechanisms of capacity development for transformative climate governance.

Empirically, the framework allows for systematic cross-case analysis. In this article, the scope was limited to studying two energy regions for exploratory purposes. Interestingly, some differences were observed between cases, such as a different role of the province, and a different approach in terms of renewable electricity planning (regional versus local). Linking to the debate on the geography of transitions (see e.g. Coenen et al., 2012), this case study only provided some clues that the region-specific governance context influences the course of capacity development across regions, and thereby underlines the spatial unevenness of energy transitions (cf. Coenen et al., 2012). A more systematic cross-analysis could shed more light on various specific contextual factors influencing capacity building in the region (e.g. culture, values, political will, geographical differences). This could include comparisons of broader political and institutional contexts between countries and its influence on capacity development.

Finally, that what we are referring to as ‘ideal’ is debatable. Future research could delve into the normative explorations/assumptions of the framework. For one, it assumes the regional level as the ‘ideal’ level of energy transition governance. However, issues of democratic legitimacy that come with governance arrangements like the energy region are left without the scope of this article. Furthermore, the capacities framework assumes a set of governance capacities and related governance activities to be ‘ideal’ for transformative climate governance. Future research could critically re-examine the normative orientation of the framework.

CRediT authorship contribution statement

**Jasper van Dijk**: Conceptualization, Methodology, Formal analysis, Investigation, Writing – original draft, Writing – review & editing. **Anna J. Wieczorek**: Conceptualization, Writing – review & editing. **Andreas Ligtvoet**: Conceptualization, Writing – original draft.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Guiding interview questions

**Question set 0 – Introduction**

What is your role in the governance of the energy transition?
Questions set I – Governance arrangements

1 From your perspective, how does the governance landscape within your governance level look like? Please briefly elaborate on the tasks of the actors identified.

What networks and governance arrangements are in place? How do these relate to governance arrangements at other levels?

Questions set II – Conditions for transformative climate governance

Explain the idea of capacities for transformative climate governance. Elaborate on the orchestration capacity (give the definition) and its related conditions and activities that manifest in these capacities. Show the interviewee the activities that are identified in the literature.

1 Do you find that the activities, mentioned in the capacities framework, fully capture the orchestrating capacity?

If not, which activities would you add to these?

Questions set III – Interactions between governance bodies and conditions for transformative climate governance

1 How would you describe the interactions of the governance bodies in the region:

Between municipalities
Between municipalities and the province
The region and the national government

1 How would you describe the role of the RES coordinator and steering group within your region?
2 Can you explain for each of the activities identified, how these are influenced by the interactions between governance bodies?

How do these influences relate to the institutional setup of the governance landscape identified in question 1?

Condition 1: Strategic alignment

1 To what extent are goals and strategies aligned between governance levels?
2 To what extent are general goals and strategies broken down for different sectors and organisations?
3 To what extent are priorities aligned across scales in the relevant sectors?
4 To what extent is there clarity about who is responsible for which objective?
5 To what extent are mechanisms of accountability in place? How is this in the context of the energy-region partnerships?
6 How do governmental actors engage non-governmental actors to adopt sustainable energy strategies?
7 To what extent are actors from industry and DSOs involved in the RES?
8 How does the RES and the energy-region contribute to enlisting actor groups such as industry and DSOs?
9 To what extent are regional governance bodies dependent on national legislation in order to steer the energy transition?
10 To what extent are strategies and objectives communicated to DSOs?
11 To what extent are concrete pathways defined to reach strategic goals?

Condition 2: Mediating across scales and sectors

1 How are funds for the energy transition distributed across governance levels?
2 Do regional levels have sufficient funds and capacity to operate independently from the national level to commit to their targets?
3 Do the energy-regions enjoy higher support from constituent organisations?
4 How is progress reported and communicated across levels? Are governance institutions required to?
5 What mechanisms are in place for communication and (policy) learning across governance levels?

Condition 3: Creating opportunity contexts

1 What mechanisms are in place for financing and guidance of processes across governance levels?
2 To what extent does the institutional setup support synergies to execute goals and stimulate action?
3 What are institutional barriers for developing these synergies?
4 Are legislative powers aligned with actions needed at different governance levels?
5 Are priorities aligned across scales in the relevant sectors?
6 How do misaligned priorities influence the region’s capacity to determine action mandates?
7 How are priorities aligned with strategic direction?
8 How can short-term thinking be avoided?
9 How can institutional setups be adapted to overcome short-term thinking and go beyond election cycles?
10 What are other obstacles for effective transformative climate governance within the region that have not been addressed so far in this interview?

Appendix B. List of interviewees

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<th>Function</th>
<th>Organisation</th>
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<td>i1</td>
<td>Programme coordinator</td>
<td>Holland Rijnland</td>
<td>HR</td>
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<tr>
<td>i2</td>
<td>Policy Advisor Energy Transition</td>
<td>Province of Zuid – Holland</td>
<td>HR</td>
</tr>
<tr>
<td>i3</td>
<td>Policy Advisor Sustainability</td>
<td>Municipality of Noordwijk</td>
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<tr>
<td>i4</td>
<td>Policy Advisor Energy Transition</td>
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<td>i5</td>
<td>Process Manager Energy Transition</td>
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<td>HR</td>
</tr>
<tr>
<td>i6</td>
<td>Process Manager Sustainable Construction</td>
<td>Municipality of Leiden</td>
<td>HR</td>
</tr>
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<td>i7</td>
<td>Advisor Strategy &amp; Environment, Holland Rijnland</td>
<td>Alliander (DSO)</td>
<td>HR</td>
</tr>
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<td>i8</td>
<td>Project Leader</td>
<td>Noordoost Brabant</td>
<td>NB</td>
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<td>i9</td>
<td>Project &amp; Programme Manager</td>
<td>Province of Noord-Brabant</td>
<td>NB</td>
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<td>i10</td>
<td>Alderman &amp; Chair Steering Group RES Noordoost Brabant</td>
<td>Municipality of Bxtel &amp; Noordoost Brabant</td>
<td>NB</td>
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<td>i11</td>
<td>Policy Officer Energy Transition</td>
<td>Municipality of Oss</td>
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<td>Policy Officer Sustainability and Climate Adaptation</td>
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# Event Place and date

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Appendix C. Overview of grey literature sources


