

The goal of R&Dialogue is to improve the dialogue on how to achieve a low-carbon society. A dialogue between research and civil society communities. We aim to contribute to a joint vision towards a low-carbon society in Europe.

In the Netherlands, as well as in 9 other European countries the national council identified the main points of discussion on the role of dialogue in achieving a low-carbon society.

Netherlands Low-Carbon Dialogue Discussion Paper

November 2014



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SUMMARY

This paper describes the main points of discussion in the Dutch national council on the role of dialogue in the energy transition and creating a sustainable society. These discussion points refer to the energy sector and energy value chain regarding the role of policy goals and dialogue at national and European level. Together the national council members accepted the challenge to have a dialogue on the future energy system of the Netherlands with regard to the role of dialogue in the implementation of energy projects and energy policy development. This provided input in the form of reports and case studies, the council members developed this discussion paper.

In the first four meetings the council members identified several dilemmas in society that play a role in the dialogue process in the energy sector. A clear distinction is made between the policy dialogue (a dialogue between stakeholders on the instruments to reach certain energy and climate goals) and the project dialogue (a dialogue between stakeholders on the implementation of energy projects). The analysis shows that these issues can be very well described and explained in the form of several dilemmas.

The following dilemmas are described: the energy system dilemma, the knowledge dilemma, the communication dilemma, the dilemma of the energy sector, the representation dilemma, the urgency dilemma, the public management dilemma, and the cost and benefits dilemma. These dilemmas are illustrated with several examples of initiatives, projects and policies. The dilemmas are correlated, affect the energy chain, raise questions and ask for solutions. This shows that there is no single answer let alone a silver bullet to solve the issues. The current analysis gives good insight to propose potential solutions that will be described in the vision paper.

1. Introduction

This paper gives an overview of the points of discussion in the Dutch national council as part of the European project R&Dialogue. These discussion points refer to the energy sector and energy value chain regarding the role of policy goals and dialogue at national and European level. The dialogue is held by dedicated council members from different parts of the energy and energy-intensive industry sector, science and research and development with regards to specialisms as policy, science, energy production, public participation, energy-intensive industry, from research institutes, universities, branch organisations, and politics.

Together they accepted the challenge to have a dialogue on the future energy system of the Netherlands with regard to the role of dialogue in the implementation of energy projects and energy policy development. To structure this dialogue they received input from three different sources of information:

1. The R&Dialogue consortium, specifically the Dutch R&Dialogue team, in the form of the report *The Dutch energy sector: an overview*.
2. Four case studies on the dialogue and process concerning energy technology implementation projects on 1) Wind power offshore, 2) Carbon Capture and Storage (CCS), 3) Shale gas, 4) Gas storage.
3. A broad network of stakeholders and parties involved in the project, both from council members and other stakeholders, available to provide input and knowledge based information for the council.

Regarding the dialogue and energy system in the Netherlands, the council members mentioned three topics vital to discuss:

- The interaction between Dutch policy and targets, the energy market and the European energy and climate goals set for 2020: energy saving, CO₂-reduction and renewable energy in the mix.



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- The role and influence of trust, behavioural change, public participation and engagement in the dialogue with regards to innovations and energy projects and realising Dutch and European energy and climate goals.
- The position of the Netherlands in Europe and Europe in the Netherlands with regard to cross-border energy topics and the realisation of Dutch and European energy and climate goals.

This leads to the development of two papers explaining the dialogue in the council and Dutch society on the role of dialogue in energy implementation projects and energy policy development.

- National Low-Carbon Dialogue Discussion Paper: present the topics of discussion in the council on the role of dialogue in energy projects and policies.
- National Low-Carbon Dialogue Vision Paper: present a constructive vision on how the Netherlands can deal with these energy transition topics and what the optimal role of dialogue and decision-making processes in the energy transition can be.

This paper presents the National Low-Carbon Dialogue Discussion Paper of the Dutch National Council. Before presenting the main topics of discussion, the current Dutch policy and the national dialogue situation is presented.

2. Dutch energy policy

The Netherlands has embraced the medium-term climate and energy goals set by the European Commission and European Member States. The 2020 goals set for the Netherlands, compared to the 1990 baseline, are the following:

- 20% CO₂-reduction in 2020;
- 14% renewable energy production in the energy mix in 2020 and 16% in 2023;
- 20% energy-efficiency measures in 2020.

In order to achieve these targets in time a dialogue was initiated by stakeholders in the energy and energy-intensive industry sector, supported by politics on incentives and measures to reach the goals set.

2.1 National dialogue

There have been several national dialogues on energy related themes in the Netherlands. Dialogues are held by authorities and CSOs concerning different projects and different levels. Examples of national dialogues are the *Topsector Energie* policies with its *TKIs (Topconsortia voor Kennis en Innovatie / Consortia for Knowledge and Innovation)*, which are institutionalised processes. The organisation Urgenda, initiating bottom-up dialogue and events like the Dutch People's Climate March on the 21st of September 2014. Or a dialogue on the future of the role of gas in the Netherlands held with all direct involved stakeholders – the gas dialogue, held with gas experts in the field. Groningen hosts the initiative of the Dialogue Table (*Dialogtafel*) on the consequences of gas production for the Province Groningen, also an institutionalised process. Other examples of dialogues are the mobility dialogue of, amongst others, ANWB and citizens on e.g. charging stations for electric vehicles.

The Rutte-Asscher government adopted sustainable growth and achieving European wide energy targets as a priority.¹ The movement *Nederland Krijgt Nieuwe Energie* (foundation initiated by over 40 partners in the societal and branches field of energy and climate) together with Dutch Parliament called for a long-term vision on more consistency in policy making with regard to energy. In October 2012, the SER (Social and Economic Council / *Sociaal Economische Raad*) advises Dutch government, based on

¹ <http://www.rijksoverheid.nl/documenten-en-publicaties/kamerstukken/2013/03/28/kamerbrief-groene-groei-voor-een-sterke-duurzame-economie.html>



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their set agenda for sustainability and growth, to create a national dialogue to develop toward a new Energy Agreement for Sustainable Growth – the Energy Agreement. Until September 2013, a team of over 40 stakeholders led by the SER negotiated, cooperated and brainstormed on how to reach the targets set for energy in 2020. First together, later in groups and discussed topics as:

1. Energy savings and renewables,
2. Industry, centralised production and Emission Trading Scheme (ETS),
3. Innovation and clean technology,
4. Mobility and transport.

The dialogue between the stakeholders was held behind closed doors and along the process, new developments and negotiation topics leaked to the media. Before the start of the political recess, the end of June 2013, a provisional agreement was sent to Cabinet. This was, with the knowledge of stakeholders, adjusted on some points by the Ministry of Economic Affairs in order to come to an agreement.

By the beginning of September 2013, the responsible Minister of Economic Affairs, Mr. Kamp announced that the participating stakeholders have reached an agreement and announced that stakeholders will sign the agreement. Half September the agreement was discussed in parliament and the SER appointed a Steering Committee of the SER Energy Agreement to ensure targets and evaluations, and staff to help implement, test and facilitate.

The agreement focusses on ten issues namely ²:

- Energy savings: on a yearly basis 1.5% reduction of the final energy consumption aiming at 100 PJ saved by 2020. Energy saving measures focus on both the built environment and the increase of energy efficiency measures in the industry, agriculture and service and business sectors. By the end of 2016, 35% of the 100 PJ and by 2018 65% of 100 PJ has to be reached. If the energy saving measures are not on schedule or if it does not seem likely to reach the goals set, additional measures come in place, fiscal and / or obligatory. The energy saving measures focus on the energy user and not on the energy supplier.
- Scaling up renewable energy sources: implementation of 14% in 2020 and 16% in 2023 in the form of 4450 MW wind offshore operational in 2023 and 6000 MW wind onshore in 2020. TenneT is responsible for the connection to the grid. Coal power plants can co-fire biomass up to 25 PJ.
- Decentralised generation: stimulus for citizens to generate electricity and heating on a decentralised level. In 2014 a tax reduction of €0.075 per kWh is in place for decentralised generation at local level that can be used in a well-defined area (*postcoderoos*).
- Grid: the grid will be adjusted for future usage and purposes.
- ETS: a joint lobby is set up to change the ETS working towards 80/95% GHG emissions in 2050, assured position for carbon-leakage companies and compensation for indirect (electricity) costs.
- Fossil generation: coal power plants are an important part of the electricity energy production. To reduce GHG emissions three power plants constructed in the 1980s will be closed down from 2016 and two from 2017 onwards. The closing of three coal plants will introduce an exemption from coal tax. Gas power plants are viewed as an important form of electricity production during the transition, but are not subjected to specific measures . ³

² <http://www.ser.nl/~media/files/internet/talen/engels/2013/energy-agreement-sustainable-growth-summary.ashx>

³ Dutch Authority for Consumers and Markets (ACM) is currently investigating the conditions under which coal power plants can be closed down.



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- Efficient mobility: 60% CO₂-reduction in 2050 compared to 1990 and 25 Mton (-17%) in 2030. It is expected that the transport sector will contribute with 15 / 20% energy reduction of the 100PJ expected in 2020.
- Increasing employability and create employment gains of at least 15.000 full-time jobs moreover in the construction and installation sector. This combined with trainings and retraining's pilots, internships and educational institutes.
- The Netherlands as energy innovative and exporting country focussing on a top 10 position on the CleanTech Ranking by 2030.
- Funding programme organised by umbrella organisations like the Dutch Banking Association and Pension Federations to create a funding programme for renewable energy and decentralised energy production.

The implementation of all these measures is bound to a few strict financial criteria:

- Maximum 3% national budget deficit;
- No changes fiscally;
- On average, a minimum 40% cost reduction for offshore wind.

Former Minister Ed Nijpels is in charge of the implementation and consistency of the agreement, policy and execution measures as chair of the Steering Committee of the SER Energy Agreement. The signing parties are all equally responsible of the success of the agreement. In 2016, a first progress evaluation will take place.

3. The council members

The national council has a diverse mixture of expertise, knowledge and experience in the energy value chain. For this reason they were asked to take a seat in the national council of R&Dialogue. They were asked to join the Dutch national council after the research phase, wherein thorough research on the energy sector together with case study research was held and over 150 interviews were conducted.

The council members agreed upon working together for six sessions of 2,5 to 3 hours over a period of 10 months (May 2014-February 2015). In order to steer the discussion and show the council members which input the R&Dialogue secretariat received, a position paper was written and presented to the council members (see graph at page 7 for the whole process). The position paper provides a reflection on the research phase and catalyses the discussion held by the council members.

In the research phase, the secretariat of R&Dialogue was able to contact some environmental organisations. Despite many conversations and requests, environmental organisations were unfortunately limited / not able to join the national council. The council decided to have a pragmatic view towards this and be open and transparent towards them when they are ready to participate in the dialogue.

Name	Organisation	Type of stakeholder
Chair Stan Dessens	On own behalf / personal capacity	Former policy / corporate
André Jurjus	Director Netbeheer Nederland	CSO / corporate
Robert Kleiburg	COO ECN	RDO
Remko Ybema	Director Policy Studies ECN – replacer Robert Kleiburg	RDO
Berend Scheffers	Technical Director EBN	RDO
Barthold Schroot	Lead technology projects & innovation - replacer Berend Scheffers	RDO

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Catrinus Jepma	Professor Energy & Sustainability Groningen University	RDO
André Faaij	Scientific director Energy Academy Europe	RDO
Hans Grünfeld	Managing director VEMW	CSO / corporate
Anne Sypkens Smit	Director Energie-Nederland	CSO / corporate
Reinier Gerrits	Manager Energy and Climate VNCI	CSO / corporate
Bert Stuij	Manager energy transition RVO	Policy
Tjeerd Jongsma	Director ISPT	CSO / RDO
Mart van Bracht	Director Energy TNO	RDO
Chris te Stroet	Director Gas & Oil / Innovation – replacer of Mart van Bracht	RDO
Anton Buijs	Communication and Public Affairs manager Gasterra	Corporate
Frank Dietz	Head Department Sustainable Development PBL	RDO / policy
Brendan de Graaf	Director Duurzame Energie Unie, board member e-Decentraal, Former director TexelEnergie	Corporate
Emma ter Mors	Senior researcher Leiden University	RDO

4. Identified dilemmas

In the first four meetings the council members identified several dilemmas in society that play a role in the dialogue process in the energy sector, as a response to the position paper. First a problem definition is given, subsequently, the consequences of the defined problems and the identified dilemmas are listed. This is followed by questions this project wants to answer in the vision paper.

4.1 Problem definition

The Member States of the European Union have agreed upon energy and climate goals for the future. For 2020, they have agreed to reduce the CO₂-emissions by 20%, accomplish 20% improvement in energy-efficiency and have 20% renewable energy in the mix compared to the 1990 levels. The aspiration is to move towards a competitive low-carbon economy in 2050 and cut emissions 80-95% below 1990 levels and use 30% less energy by then. Some countries have agreed upon divergent goals, for example the Netherlands has agreed upon 20% energy-savings, 20% CO₂-reduction and 14% renewables in the mix in 2020.

On 23 October 2014, the EU leaders agreed upon targets set for 2030. By 2030 greenhouse gas emissions must be reduced by 40% compared to the 1990 baseline, working towards 80 % in 2050. The share of renewable energy must be increased to at least 27% of Europe's energy consumption by 2030 and energy efficiency must increase by at least 27% in 2030.

The implementation of these European energy and climate goals requires large investments in energy production, energy saving measures, transport and storage infrastructure, together with the changes in behaviour that are associated with it. Project developers, often international market players, are affected by the contrasts of the international market and national policies. The implementation of energy policies, in the Netherlands, is left to the market (either state or publicly owned companies) – moreover due to the liberalisation of the energy market. Companies develop facilities (power plants, wind parks, high voltage lines, exploration and production wells) and often encounter resistance from local communities and authorities. In some cases this leads to nationwide resistance, causing a deadlock in the policy implementation (CCS is an example of that). This affects project developers in their behaviour, since possible delays in project progress and increased project costs create a business risk. Besides these discrepancies in policies, markets and technologies there are also trends in society that create major challenges for the development of energy projects.



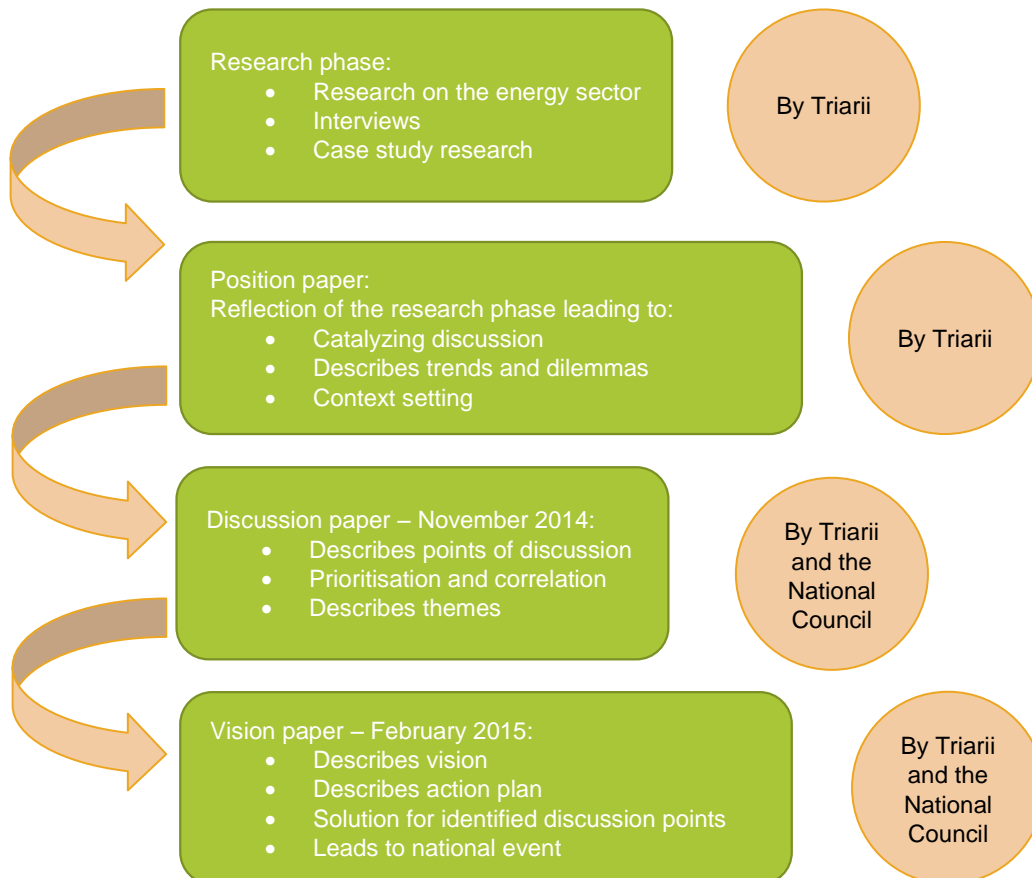
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To address the problems between European set policies and national policy sovereignty, the international energy market and local implementation encountering resistance the following question is defined: Why do energy policies and projects encounter resistance in society?

The discussion of the national council addresses the problem definition above and issues as:

- The increased resistance and reduced public support in society for energy policies and projects in general on the one hand, and on the other hand increased support for local initiatives regarding energy and climate at local level;
- The position of stakeholders (investors, companies, NGOs etc.) and their role in the decision making process for energy policies and projects.

To achieve common ground in the decision making process for R&Dialogue, the position paper should lead to and give input to the discussion paper. This is followed by a discussion to tackle these problems identified in the discussion paper, in order to create and develop the vision paper. Graphically, the process is sketched in the following picture.



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4.2 Consequences of the defined problems

In the R&Dialogue project, research on the Dutch energy sector, case study research and interviews have led to a problem definition and to the identification of dilemmas in society. R&Dialogue concludes that, within the 10 countries participating in the project, the following is identified:

- The implementation of energy projects and policies can lead to bigger delays than originally expected. As a consequence, this can lead to higher project costs and possibly cancellation of the project or policy.
- Groups and individuals in society, reinforced by broad access to information and social media worldwide, can have a strong influence on decision-making processes.

4.3 The identified dilemmas

The described dilemmas are all highly related to each other, potentially causing a spiralling effect hampering solutions for the problems in society and in the field of energy and climate.

4.3.1 The energy system dilemma

The energy system is defined as the combination of governmental policies with respect to energy, the way the energy market operates (both for public and private companies, energy producers, energy consumers and grid operators) and how CSOs, new initiatives and citizens respond to technologies and innovations. The current energy system does not contribute efficiently, effectively and timely towards the goals of the energy transition. This is partly due to the fact that the external costs of the current energy system (e.g. the CO₂ price, energy dependency, energy usage) are not unambiguously determined. Changes in the energy system requires changes in legislation, which is a time consuming process. Effective legislation requires understanding of the current and possible desired future system. The inner workings of the energy system are very complex and sometimes only partly understood. During a transition process the behaviour of stakeholders can change, which further complicates designing a future system. Thus, even with complete consensus it is difficult to estimate what is needed and how the transition should be implemented. The following examples illustrate the system dilemma.

- The EU-ETS system leads to a current CO₂ price of around 6 euro/ton CO₂. The equivalent CO₂ price based on SDE funding for offshore wind energy is however much higher (around 180 euro/ton CO₂).
- The market for power producers is changing from only a few often multinational players to a market with also a growing number of local energy initiatives like energy cooperatives. Although their contribution in power is very small (all registered cooperatives have 90 MW installed capacity compared to the renewable wind power target of 10.000 MW for 2023), their influence in social impact is likely much higher.
- Environmental NGOs traditionally oppose companies and policies that represent the fossil energy sector. Since the signing of the Energy Agreement specific NGOs are also responsible for the execution of the agreement. This is a new role that requires a different mind-set.
- Energy storage will be more important when the percentage of intermittent renewable power increases. It is currently not defined whether this is a commercial role (for energy producers and traders) or a regulated role (for grid operators). This uncertainty delays large scale introduction.

4.3.2 The knowledge dilemma

Due to technical developments in IT and telecommunication, it becomes easier to retrieve information and data. Tools as internet and social media make worldwide information and knowledge available for everyone, everywhere. These tools do not discriminate between an expert in the field or a layman. The quality of information is crucial for proper decisions. However, the quality of information in communication varies very widely and is often hard to judge.



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- An example: the use of biomass in energy production seems a straightforward way to reduce lifecycle CO₂-emissions. However, the sustainability of specific types of biomass, its treatment, transport and its large-scale impact on biodiversity can have a very large impact on the overall CO₂-emission reduction. For instance bioethanol on sugarcane basis from Brazil leads to a nett CO₂-reduction on Life Cycle Analysis (LCA) basis. For corn based bioethanol from the Midwest in the United States (US) the same LCA basis shows a higher CO₂-emission. Currently, companies like DSM and POET work together in the US to make second generation bioethanol on basis of waste from corn leaves. This enzyme based technology to produce bioethanol has a much smaller CO₂ footprint and does not compete with corn for food. These examples show that the specific CO₂-reduction and sustainability (e.g. whether there is competition with food) for biomass cannot be generalized and is specifically dependent on the source material, the conversion technology, ways of farming and forestry. As such the application of biomass is very sensitive to framing (in communications).

The ease in which different data and information can be retrieved causes a broad range of opinions, scientific data and interpretations. This often leads to a declining trust in involved parties (moreover experts in the field as research institutes, project developers, governments etc.) as people seek for certainty. As an effect, the 'experts' want to educate the parties with a different opinion or interpretation considering their knowledge level as the problem for not understanding the set or specific research / project. By means of persuasion, they try to proclaim their message.

- An example: an organisation wants to convince local communities and other involved parties of the benefits of a certain project. The local communities do not necessarily want to be convinced or listen to the 'value-free', 'scientific' message of the other party, they have other interests and concerns, playing at a different level. The discrepancy between specific individual interests and concerns, stakeholder interests / concerns and general societal interests / concerns has always been there but is now reinforced by the quick access to information and mass communication channels.

Furthermore, the knowledge level of centralised and decentralised authorities on a certain project is of a different level. This creates difficulties in communication, information spreading and project implementation. This can result in conflicts between the different levels of authorities in terms of project implementation due to different information.

- An example: the knowledge level of national government in the offshore wind power project near Noordwijk / Zandvoort is of a different level than that of civil servants and policy makers at decentralised governments e.g. municipalities. Decentralised governments feel not well and timely enough informed and find ways and means to be informed. National government had a lead in project implementation meaning that decentralised governments are at a backlog in information, affecting the relationship between levels of authority negatively.

The gap between the interpretation and opinion forming based on information and data, the different levels of knowledge and concerns in society and amongst public administration, the distrust in people that are considered experts (e.g. people from companies, government and research institutes), different interests and concerns of sender and receiver cause noise. This describes the knowledge dilemma.

4.3.3 The communication dilemma

Different concerns, opinions and interpretation of knowledge are easily communicated in a society with multimedia tools and access. The tools used for communication can be very different, from big reports,



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to tweets, to videos on YouTube, spreading information affecting opinion making not necessarily leading to a constructive dialogue. Furthermore, a communicator sometimes has to work according to protocols and is not always directly able to communicate fully and correctly. The way of communication and the communicator is crucial in proper communication. All parties involved (government, industries, CSOs, RDOs, action groups etc.) do not always spread neutral / correct information. When specific change in (their) society / community is planned or occurs, parties not tied to protocols have the freedom to spread messages of any kind.

- An example: in the shale gas discussion the communication dilemma is visible. An American documentary maker filmed a water tap set on fire due to shale gas drilling affecting the image of shale gas in a negative way. The documentary was used as an argument against shale gas during the Dutch shale gas debate. The documentary maker is accused of not broadcasting problems with gas (methane) and water before the fracking for shale gas started. As a consequence, different parties communicate information whether or not knowledgeable information to spread a / their message.^{4 5}

All parties involved do not always spread neutral or correct information.

Once a message received high media coverage, questioning the policy (line) or project implementation, it affects the image of the project or policy line drastically. Strong framing of the message causes polarisation in society. Governments are expected to respond objectively but need much more time to develop an aligned position and react accordingly, causing potentially less impact due to the delay. Other stakeholders have the opportunity to respond according to their interests, with the opportunity to manipulate the message. This creates a subordinated position towards the parties sharing highly subjective, sometimes untrue messages, because it is more difficult for governments to defend their message. Governments, industries and CSOs do not always complement the policy or project implementation themselves, communicating strong argumentation and sometimes even creating polarisation. These effects are reinforced by the quick turnover of news in media.

- An example: the current discussion on onshore and offshore wind power is framed and manipulated in such a way that depending on the sender the message on wind power is framed positively (offshore wind power creates employment in the Dutch offshore maritime and construction sector) or negatively (offshore wind power is very expensive and requires huge long term subsidies). The current discussion on offshore wind power and its societal costs is framed differently. What is considered important and necessary is perceived differently by all stakeholders e.g. CSOs, RDOs, government, industries and citizens.

The organisation of policy and project development creates a different position for enterprises and governmental entities. Currently, enterprises like energy companies and project developers are held responsible by society for the implementation of energy policies and projects. And therefore are confronted with resistance in society. National government considers the implementation of energy policies a task of project developers. In local communities there can be alignment between local government and local project developers / local initiatives e.g. when they work together in public-private partnerships like Energy Service Companies (ESCOs) or when a group of volunteers want to set up an energy cooperation or similar initiatives.

⁴ The amount of methane in the water is the reason for the burning tap water going back as far as 1936. The director did not discuss this matter.

⁵ <http://wattsupwiththat.com/2011/06/04/the-gasland-movie-a-fracking-shame-director-pulls-video-to-hide-inconvenient-truths/>



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This line of development causes a communication gap between 1) the responsible party for the communication of the policy (line) and the project implementation, 2) the communication gap between several levels of governments, 3) the role of public / citizens in both the implementation of policy and projects and communication, 4) the different concerns and interests of stakeholders (of all kinds and levels) cause framing of communication. The above mentioned factors, cause a communication dilemma.

4.3.4 The dilemma of the energy sector

In society (both Dutch and European) the value of the energy and industry sector is under-appreciated and perhaps not always trusted. The role and function of the energy and industry sector on our living conditions, employment, state finance, knowledge economy, innovation and education is undervalued. According to the sector itself, this causes a lack of interest and knowledge in the sector from society, triggering a reason for subjective, polarised opinion forming and communication. See above dilemma. The under-appreciation of the energy sector has two effects:

1. The value the sectors play in society is wrongly appreciated.
2. It does not complement the role the sectors can play in creating a low-carbon society, and achieving the energy and climate goals and implementation processes.

This dilemma is considered a valuation dilemma as the value of energy companies and energy intensive companies (e.g. the company value at the stock exchange) does not properly reflect the technical know-how and capabilities in the company to contribute to an energy efficient low-carbon future. This can vary strongly between energy companies as they have often very different interests and concerns. Subsequently, the know-how and technical capabilities of companies is not always trusted, which makes it difficult for the energy sector to be the initiator of change (has also been an output of the CATO research).⁶

- An example: Eneco has a medium percentage production gas-fired capacity and a high expansion ambition in wind power while E.On has a high percentage production capacity, both in gas- and coal power. Nevertheless E.On was one of the largest investor in wind power in Europe and has much more investment capacity for renewables despite its less green image compared to Eneco.⁷ Many fossil fuel based companies do a lot of research and sales in renewables (e.g. Showa Shell in solar panels⁸) while some utilities do not invest in renewables research (e.g. Nuon versus Helianthos^{9 10}). Industry has the necessary know-how and sometimes wants to be a part of the energy transition. Most companies are active in specific parts of the energy value chain. Established companies can play a role in the energy transition and invest in sustainable measures. It has to be taken into account that this is not always their core business, and sometimes not in their interest or a part of their concern, resulting in companies not actively being a part of the transition.
- An example: large energy companies or equipment suppliers might have a large impact on relative short term because of their capabilities in organisation, finance, project management, energy expertise etc. Energy start-ups and cooperatives might benefit from working together but ideological differences and ways of working are often not aligned.

⁶ <http://www.co2-cato.nl/>

⁷ <http://uk.reuters.com/article/2014/08/26/e-on-renewables-idUKL5N0QW1D420140826> and

<http://www.breezesystem.com/customers/eon/>

⁸ <http://www.showa-shell.co.jp/english/>

⁹ http://www.rvo.nl/sites/default/files/bijlagen/Flexible%20light%20weight%20PV%20laminates%20for%20attractive%20solar%20electricity_Nuon%20Heliantos.pdf

¹⁰ <http://renewables.seenews.com/news/dutch-nuon-sells-helianthos-assets-to-hyet-solar-273482>



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Disruptive changes in the energy field and subsequently the business of fossil power based utilities can be seen as a necessary consequence of the energy transition. However, it should be noted that the development of the current sector has taken decades. The development of the energy expertise, operational capacity, business experience and opportunities the fossil driven energy sector built up, will not be easy to replace.

4.3.5 The representation dilemma

Due to the emancipation of society, the democracy Europeans and Dutch people experience is well-developed and professional. Democracies give the people the opportunity to rule, manifesting rules and regulations to listen, hear and create opportunities for citizens to show and have influence on policy processes. The influence of citizens is experienced in energy implementation processes in two different ways. One whereby citizens protest against energy projects, demanding / gaining influence on the implementation process. Usually, the group of citizens protesting, receiving attention in society is a minority. Or at least, always starts with a minority. In a democracy, rules and regulations are implemented in such a way, that minorities have relative big influence and power.

- An example: the discussion on CCS (Carbon Capture and Storage) in Barendrecht or the pilot project on shale gas exploration in Boxtel were local projects. In both cases a group of local citizens protested against the plans in order to stop or postpone the project implementation. In both cases, what started as a local project with local implications and local protests emerged to a national discussion with national consequences – CCS politically in a deadlock and shale gas a political topic of discussion and research.

An emancipated society can create active and involved citizens.

The other influence of citizens is one whereby citizens are actively involved in local energy initiatives and cooperatives, energy policies and project implementations of all kinds and levels. Public can be very influential and in our changing society a (different) role of public / citizens is desirable and necessary.

At macro level, politicians and experts in the field draft policies for society to adopt, creating better living standards. At micro level, the representation of the politicians and experts is more and more contested, as citizens demand (more or other) influence in the implementation process of policies, sometimes questioning the policy or implementation itself. The increasing unrest in society and resulting polarisation and protests can be described as a consequence of globalisation. Some argue that these developments go hand in hand with the increased popularity of populist parties.¹¹ Authorities stepping aside of the initial policy line, drawn at macro level, due to the highly debated policy (line), create two elements:

1. Provide room for other protests to achieve the same results.
2. Devaluate the position of politicians and policy makers, creating distrust in their policies, inconsistent policies, uncertainties in the market and for market players and lack of leadership.

These elements cause dilemmas in the implementation of set policies and projects, versus representation of the people in society and their role in a democracy.

This has led to the following questions of the council:

- How to design participation and representation and take into account the increasing requirement for participation and avoid disruptive processes?

¹¹ Paul Frissen “De fatale staat”



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4.3.6 The urgency dilemma

In society and in its broadest sense of the word, (both Dutch and European) the urgency for an energy transition is not equally present. Despite the fact that the interpretation of the energy transition can be fairly different among stakeholders, the urgency for change is (largely) present and tools are developed in order to make the transition possible. At different levels in society (governments, industries, CSOs, RDOs, public / citizens etc.) the awareness of the urgency for change in the energy sector towards a low-carbon society is felt. However, the impact and implementation is perceived different, meaning that not all (necessary) steps to create the energy transition are equally recognised (irrespective of the technology, policy or project and level of knowledge, capacity and know-how). Subsequently, the different forms of interpretation of the energy transition are not equally understood and considered. Some steps in the energy transition, (e.g. the closing of all coal power plants), are on short term fairly irrational and unrealistic, others are not accepted (e.g. increasing energy prices, windmill park close to home).

- An example: Dutch consumers want to pay the lowest price for energy, and also want 'green' energy. This stimulates the market to buy 'green' certificates from other countries with a bigger renewable energy production. Subsequently, some consumers want the 'green' energy to be produced in the Netherlands, but do not want to be confronted with renewable energy, e.g. windmills, nearby their houses (the so-called Not In My BackYard-effect). The complexity of the interaction between the possibilities available, level of knowledge and wishes of consumers to receive 'green' energy and the price and space they are willing to pay, is just an example of the discrepancy between the felt urgency for transition and actual actions, which actually applies to all players in the field (also governments and industries).

Also the priority for importance versus urgency is an old management dilemma. It takes roughly 10 years to realise a major infrastructural energy project (for example a high voltage North – South corridor in Germany by TenneT). The development of a novel energy technology from lab scale to industrial scale might also take roughly 10 years. As a consequence major changes in energy transition in society will require at least some 15 years assuming parallel developments to speed up the process. By most people this time horizon is not perceived as urgent hence other priorities prevail and politicians follow the priorities of the citizens.

There are also stakeholders wanting to accelerate the energy transition in a much shorter timescale and therefore advocate a much higher urgency for energy and climate policy. In society different views on urgency can be identified.

- An example: the upcoming bottom-up movement of citizens wanting to be active in the energy debate – for a variety of reasons – and stimulate themselves and their direct surrounding. Some bottom-up movements initiate activities because they want to speed up the energy transition and take action as established stakeholders fail to do so. Local energy cooperatives are an example of this.

Many factors are of influence on the urgency dilemma. Factors as level of trust in policy and politics, behaviour and behavioural change, leadership and consistent policies, level of urgency and communication cause scepticism, leading to a disbelief in climate change and reasoning behind energy and climate policy. Furthermore, it is unclear who the owner is of the urgency dilemma and who should take the lead in activating measures to tackle the energy transition.



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4.3.7 The public management dilemma

The management of the public and private domain by government is called public management. Different layers of government often have different roles with respect to major energy projects and energy policies. National government can have the roles of policy maker, shareholder, the organisation that issues the permit and the organisation that controls the outcomes of the project. For other stakeholders it is not always clear what the government's role is at specific projects. This accounts for all levels of authority – coordination is lacking. The sometimes unclear role of government representatives in specific projects can lead to confusion or lack of trust with certain stakeholders.

What can be identified as changing forces and alternatives in terms of the changing responsibilities and position of national government from a passive position to an active position?

- An example: when a project developer wants to invest in a pilot project on shale gas in Boxtel, national government is its direct contact person. With the available knowledge national governments decides on continuation of the project. Decentralised authorities (municipality of Boxtel and Province of Noord-Brabant) are informed but not directly a part of the decision making process. Projects are reviewed and considered different at different levels of public management. National government agreed with the pilot project on shale gas and, though later in the process, the municipality of Boxtel disagreed with the project and policy.
- An example: national policy that conflicts with European policy. Member States are responsible for implementation of energy policy and achieving the goals set, since energy policy is a national matter. As an implication, this means that Member States choose their path in achieving the goals set and do not necessarily accommodate the developments in other countries, influencing each other's markets. The sovereignty Member States want to attain for energy policies has led to the three European energy targets not being complementary to each other. The energy markets have a partly international and partly north-western European character, which is discussed at national level, with national interests and priorities. The discrepancy between the international market and national policy implementations cause differences in priorities and decisions towards the European set goals. The perception arise that Europe, a frontrunner in creating a low-carbon society, is not able to live up to its goals, stirring the discussion whether Member States are able to reach the targets on time¹²¹³¹⁴¹⁵.

The role of national government has changed due to the *Rijkscoördinatieregeling*. This means that national government coordinates decision making processes of spatial planning and infrastructural projects when national interests are involved.¹⁶ Specifically, the national government takes more responsibility – that was first in the hands of lower authorities. In order to showcase this responsibility it is necessary to house the needed level of knowledge and expertise on the policy line – usually expressed in a Structural Concept (*structuurvisie*).

¹² http://ec.europa.eu/clima/policies/roadmap/index_en.htm

¹³ http://ec.europa.eu/clima/policies/package/index_en.htm

¹⁴ <http://www.energieakkoordser.nl/energieakkoord.aspx>

¹⁵ http://ec.europa.eu/clima/policies/2030/index_en.htm

¹⁶ <http://www.rvo.nl/subsidies-regelingen/de-rijksco%C3%B6rdinatieregeling>



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Another factor that plays a role is the highly politically sensitive arena politicians – ministers, Provincial Executives and aldermen – are in. It is observed that politicians operate in a short term political arena that is often not compatible with a long term vision.

Public management (all levels of authority) is often blamed for not facilitating the energy transition and holding back developments. Companies and project developers often pinpoint to national government in their role in energy projects.

- An example: wind power companies want to invest in wind power projects. National government and national policy provides wind power companies the opportunity to create an acceptable business case. Decentralised authorities are not always in favour of this 'national' policy e.g. with the implementation of wind power in Drenthe at the N33 project. A dilemma occurs between national policy and local implementation and responsibility.

This leads to the topic of the balance between means (policy instruments and budgets) and goals (energy and climate targets). It is questioned which authority is responsible for the implementation, public support, investments etc.

- To what extent should policy implementation of national interest be delegated to local government?
- What can be identified as changing forces and alternatives in terms of the changing responsibilities and position of national government from a passive position to an active position?
- Who is in addition to (national) government is responsible and can take a role?
- How to deal with collective responsibility / interests?
- How to jointly look for solutions?
- How to deal with collective needs and vice versa with individual interests?
- What should be the role of NGOs and local initiatives?
- How do we take decisions in a multi-stakeholder environment?

4.3.8 The costs and benefits dilemma

Citizens and local government officials are confronted with the consequences of energy projects in their direct environment. This may bring actual and perceived negative consequences in terms of safety issues, local unrest, devaluation of housing, noise, environmental risks, change in landscape, changing employment etc. However, these energy projects are a part of the European and national energy policy set up as building blocks towards the energy transition. This energy policy is supposed to bring benefits in terms of energy security, energy affordability and lower CO₂-emissions. These benefits could occur much later in time and are spread over a very large area (nationally or even globally in the case of the climate change problem) and may not be felt and dealt with at local level. How do we create incentives that align the local and national interests better?

- An example: The gas storage project in Bergermeer is part of the energy strategy to implement the gas roundabout. This project, together with other storage projects, supports future earnings on gas transport and trading while making the Netherlands less vulnerable to interruptions in gas supply. The local communities in amongst others, Bergen and Alkmaar experience the effects of the construction activities and are confronted with possible safety and environmental risks while not having the ability to have influence on the changes in their environment.



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5. Towards the vision paper

This discussion paper may not be conclusive, but is a first step in identifying the dilemmas on the role of dialogue in the energy transition in the Netherlands. The discussion paper raises additional comments and questions. The council members seek to find insights and answers to them in the coming period.

These are the additional comments and questions:

- There are often conflicting messages, policies and interests that can disrupt the dialogue.
- Political priorities can be very volatile as illustrated by the suddenly raised priority for energy security and independence due to the potential geopolitical instability of e.g. gas or oil.
- Opposition (local and national) can influence national energy policies (e.g. the construction of onshore and offshore wind parks impacts national wind power policy) while local projects might also be influenced by national and European discussions (e.g. gas (exploration) in shale formations). A dialogue process leaves room for different stakeholders like local and national NGOs to have often different positions.
- Balancing societal interests takes place at different levels. How can we deal with different roles and responsibilities in terms of goal versus resources?
- What could and should be expected from local stakeholders?
- What is the mandate of the different stakeholders and how should they be dealt with?

For these comments and questions insights and answers will be sought in the vision paper. The national council and Triarii currently develop the vision paper which will be published in March 2015.

