Noisy monsters or beacons of transition: The framing and social (un)acceptance of Dutch community renewable energy initiatives

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ABSTRACT

Energy Community Initiatives (ECIs) present important beacons in moving to a more sustainable energy provision at household level. The success of ECIs, however, depends on how they are framed as socially acceptable in and around the locations where they are active. Using framing analysis, this paper examines the framing of three urban and seven rural Dutch ECI cases in the period 1989–2017. Key questions are: how have Dutch ECIs been framed in the regional and national press through time, concerning their (positive) contribution to the energy transition and their support, versus (negative) perceptions of ineffectiveness and resistance? Second, to what extent does framing manifest spatial (urban versus rural) and scalar (regional versus national) divides? The data consists of 527 newspaper expressions focusing on six themes (economic, environmental, social, political, local-development, innovation). Results show that ECIs generally meet a positive framing, emphasizing economic, environmental and community benefits. However, this positivity is primarily related to the instrumental need for ECIs to prove community acceptance rather than exposing ECIs’ strategic roles in promoting the energy transition. Only in urban centres we find relatively more attention for ECIs’ transformational role. We suggest that the energy transition still stands to benefit from a stronger advocacy of ECIs’ contribution notably through a better strategic and spatial framing. This may serve to overcome continuing resistance in more rural locations.

1. Introduction

In the face of climate change, the transition from a fossil-fuel based system to an energy system based upon Renewable Energy (RE) has become more important and urgent. After the Paris Agreement, countries developed national plans to address climate change. According to Rogelj et al. (2016, p. 636), “increasing ambition over time is a key component of the Paris Agreement framework”. Compared to other EU countries, the Dutch energy transition makes rather slow progress and needs acceleration to meet the ‘Paris’ targets (IEA, 2020; SER, 2016). In 2019, about 90% of the Dutch energy supply comes from fossil fuels and the share of renewable energy was just 8.6% (OECD, 2019). To improve this, the Dutch national energy policy aims at large-scale offshore wind energy production, complemented by a substantive contribution from onshore investment in wind and solar energy (MinEZ, 2016, p. 42). However, targets prove difficult to meet, notably for wind (RVO, 2019). Offshore energy production faces multiple barriers due to the dense urbanization of the Netherlands, compounded by conflicting land use interests such as nature and airports, limited power grid capacity, lengthy procedures, and lack of social acceptance and community support (RVO, 2019). A major, persistent challenge is to gain support and social acceptance for RE.

An important role in this challenge is played by Energy Community Initiatives (ECIs). ECIs are considered to raise actual RE production and to garner support not only for local investments but for the energy transition as a whole. Through citizens’ support and stakeholder participation, ECIs can contribute to scaling of RE production and consumption, and hence boost the energy transition, as argued and evidenced across Europe and beyond (Batel, 2020; Lytymäki, Nygren, Pulkka and Rantala, 2018; Otman, Wiering and Helderman, 2014; Jennie C Stephens, Wilson and Peterson, 2008). Also, social acceptance by citizens breeds support amongst key political stakeholders (Devine-Wright et al., 2017). Such a prominent role of ECIs chimes with insights from both researchers and policy makers on ‘grassroots’ contribution to sustainability transitions, in the energy sector (Hewitt et al., 2019, Berka and Creamer, 2018), agriculture (Hermans, Roep and Klerkx, 2016) and cohousing (Boyer and Leland, 2018), amongst others.

In the Netherlands, however, the attitude towards ECIs has been...
quite hesitant until recently. At best, the government and other stakeholders tended to see citizens’ participation in RE as mainly symbolic, such as through the visible roof installations of solar panels. Since 1990s, various steps were taken towards support and participation, including the facilitation of a net-metering for domestic PV electricity production (tax deduction or ‘saldering’ for ‘own’ consumption of locally produced RE) (Kamp, 2016; MinEZ, 2016, p. 42). Only recently, this has made way for more substantive support for, dialogue on, and planning of RE with the help of ECIs, notably with the help of ‘Regional Energy Strategies’ (ECIs) (Hoppe and Miedema, 2020; MinEZK, 2020). The issue of social acceptance has thus become more pressing. Hence, a key issue is how social acceptance has evolved, and can be supported, in a complex forcefield of political, economic, environmental and social factors and trends.

The challenge of social acceptance is compounded, moreover, by its spatial scope, notably from an urban-rural perspective. More rural areas offer the most space for production facilities, but also face the direct impact of windmills and solar parks. More urbanised areas, in contrast, with manifestly growing RE demand, only host limited RE capacity with little negative impact (e.g., solar panels) (Elliot, 2019). As argued and demonstrated by Van Aalderen and Horlings (2020), there is a need for shared regional visions which differentiate and connect contributions from rural and urban areas. However, as yet, regional authorities find this difficult to articulate. More insights into the spatial dimension of social acceptance may thus help to assist the development of regional visions, solidary and joint strategy-making.

Taking a broad, historical and spatial perspective, this paper presents an empirical study of the social acceptance of ECIs through media framing. The analysis focuses on two questions. First, what does three decades of media framing of ECIs tell us about the level and dimensions of social acceptance? Second, in light of demands for a regional scope, to what extent does this framing show spatial (urban versus rural) and scalar (regional versus national) patterns and divides? To be more precise, we use two of the three dimensions of social acceptance as defined by Wüstenhagen et al. (2007), namely community acceptance and socio-political acceptance. The third dimension, market acceptance, is not addressed. We focus on the first two dimensions, through the lens of spatial framing. Our data consists of the ‘daily’ coverage of concrete ECI development in the local and national press (Mutz and Soss, 1997) between 1989 and 2017. We perceive the press as a platform for expressing and articulating local views and sentiments (Cuppen et al., 2020; Heras-Saizarbitoria, Cilleruelo and Zamanillo, 2011). While we agree that public attitudes towards technologies, innovations and activities are also affected by press coverage (Gamson and Modigliani, 1989; Krohn and Damborg, 1999), it is not this impact we are after here. Our method is designed to gather as many ‘grassroots’ expressions as possible, using the press primarily as a source of expressions concerning ECIs’ community and socio-political acceptance. Consequently, we are interested in how these expressions voice ECIs’ contributions to the RE transition at different spatial scales, through what kind of framing.

The paper is structured as follows. The next two sections further discuss the role of ECIs and their framing. Section 4 and 5 present the methodology and findings. Section 6 concludes by assessing the findings in view of the Dutch aspirations towards the energy transition.

2. Energy Community Initiatives in the RE transition

Like elsewhere, the first IPCC report in 1990 forged a connection between Dutch energy policy and climate change. Typically, Dutch policy turned to innovation towards ‘clean’ energy provision, as expressed in the Economy, Ecology and Technology programme of 1996 (Loo, 2013). The subsequent liberalization of the energy market raised ‘the market economy’ as a dominant frame, prompting privatization, mergers and the upscaling of energy companies. The national energy market thus opened to (international) market actors, through means of privatization, deregulation and restructuring of energy markets. A major step was the unbundling of the grids from production and trade. Importantly, this transformation paved the way for self-generation, collectives, and green energy traders. Such initiatives found inspiration notably in Denmark and Germany, with a strong support for regional, municipal, even neighbourhood energy production and governance. In the Netherlands, however, the dominant discourse became market-oriented, with a major role played by large, technology-intensive companies, and citizens as customers. Collective enterprise remained largely confined to a hobby of local, idealistic communities investing in small-scale initiatives such as a windmill or two, mainly in rural areas. Hence, the social acceptance of RE was primarily framed in terms of technological change driven by dominant market players (Correlje and Groenewegen, 2009; Kooij, Oteman, et al., 2018).

In the early 2000s, rising concerns about climate change shifted the perspective from efficiency-driven innovation towards sustainability with emphasis on the reduction of CO₂ emissions. This resulted in a stronger focus on transition and the role of entrepreneurs and citizens. The latter turned from consumers to co-investors and ‘prosumers’. In parallel, citizens’ groups, predominantly in rural communities, started to search for a more ‘human measure’ in the energy market. Following these developments, the national policy discourse embraced community initiatives. Hence, community initiatives became actively supported and perceived as legitimate, widening the scope for social acceptance. During the first two cabinets of Prime Minister Balkenende (2002-2006), citizens were encouraged by national policymakers to take up the renewable energy transition challenge. In tandem with falling renewable power costs (particularly for PV), the number of ECIs expanded rapidly, from around 10 in the 1990s towards over 360 in 2016 (Oteman, Kooij and Wiering, 2017).

Interrupting this trend, the Rutte administration turned to high-impact RE projects with large installed capacity, such as offshore wind projects, and subsequently, collaborations with large market parties over a decentralized and dispersed production of renewable energy (Oteman et al., 2017; Rutte and Verhagen, 2010). In words of the Ministry (MinEZ, 2016, p. 42): “locally produced renewable energy is still more expensive than other production techniques for renewable energy, and less cost effective than larger scale energy production”. Market-driven innovation gained priority for a while once more.

More recently, the tide has turned again, with a reorientation towards the local and regional level and an interest in broadening social acceptance. There is a growing consensus that national ambitions require planning, initiatives and the mustering of public support at the local level, with an important role for grassroots and cooperative initiatives (de Bakker, Lagendijk and Wiering, 2020). Practically, a major boost to featuring ECIs was given through the signing of in Dutch Climate Agreement (‘Klimaatakkoord’) pursuing a swift implementation of the Paris Agreement. After fierce negotiations, the Agreement called upon the state to pursue a “balanced ownership division in a region that strives to achieve 50% ownership of the production in the local community (citizens and businesses)” (Dutch Cabinet, 2019, p. 228). Within the negotiations, ECIs have been acknowledged as a group of actors and gained representation (Kooij, Oteman, et al., 2018). Moreover, the local level has gained significance by the initiation of Regional Energy Strategies (Hoppe and Miedema, 2020), provision of subsidies, and favourable state regulations, such as the virtual net metering in a bounded geographical area (Kooij, Lagendijk and Oteman, 2018).

Regardless, the reliance on local innovations continues to pose major challenges. ECIs require a high rate of community acceptance and active involvement from the local community in which they develop (Walker, Devine-Wright, Hunter, High and Evans, 2010). More specifically, ECIs highly depend on the approval of the local community, but also on socio-political acceptance from various layers of government and the public at large. This is particularly relevant in the Dutch context, where local municipal councils politically decide upon local planning matters, including RE planning. This is in contrast to the UK for instance, where
planning permits are less political, and more dependent on environmental and planning assessments for energy developments.

Various studies indicate that the growing attention and support for ECIs will help to increase community acceptance and political support at municipal and regional levels. Magnusson et al. (2021) and Horsbol (2013), focussed explicitly on ECIs and local initiatives in media framing. Their results reveal a positive portrayal of business and job creation, municipal or household finance, and communication with citizens, amongst others. Several studies show that the framing of energy ECIs is mainly positive, supporting local communities and democratizing the energy system (Cowell, Bristow, Munday and Management, 2011; Magnusson et al., 2021; Warren and McFadyen, 2010). Moreover, it is also through the media that issues are brought to the public, local governments and local municipal councils (Oben and Osmundsen, 2017). As explained above, this will generally require a regional (intermunicipal) scope, in which rural space is connected to urban demand. Public and stakeholder support, with a regional or even national scope, should be seen as contributors to the dynamic process of social acceptance (Wüstenhagen et al., 2007). In turn, such acceptance may fuel political commitment at different levels of government (Wolsink, 2018), nurturing spatial (urban-rural) solidarities (Elliot, 2019) and planning capacities (Van Aalderen and Horlings, 2020). We will now turn to the issue of how social acceptance takes shape through framing.

3. Framing

In modern, liberal societies, change depends on cooperation and solidarities between manifold actors and processes (Sennett, 2012). This is based, to a considerable extent, on how actors perceive and represent each other (Goffman, 1974). For transitions, a positive framing of pioneers and niche developments, as discussed above, is indispensable. One core process to achieve this is ‘framing’: constituting the beliefs, values and joined stories supporting social interaction and change (Van den Brink, 2009; Van den Brink and Metze, 2006; Veenman, Sperling and Hvětlplund, 2019). Frames ‘enable individuals to locate, perceive, identify, and label’ (Goffman, 1974, p. 56) occurrences around them. As such, frames present sets of meanings that are shared throughout a number of people or groups within society. According to Benford and Snow (2000, p. 614), frames are “schemata of interpretation” that “organize experiences and guide action” by bringing to presence a coherent set of interpretations, ideas and beliefs. In a transition setting, frames may help to portray actors as vital beacons of change warranting support and attention, or as the opposite (Van Der Schoor and Scholten, 2015). Our study adopts two framing concepts: ‘collective action frames’ and ‘scale framing’.

‘Collective action frames’ refer to the focus, variety and coherence in the expressions addressing a specific ambition or way of action (Benford and Snow, 2000). Collective action frames aim to align aspirations and incentives (Eaton, Gasteyer and Busch, 2014). In our case, collective action frames primarily serve as an analytical concept, prompting us to discover what common threads and patterns media expressions on ECIs yield, along thematic and spatial lines. According to Benford and Snow, collective action frames entail four dimensions (1) problem identification and direction of attribution, (2) (theme) inclusivity and flexibility, (3) interpretative scope and influence, and (4) resonance (for a detailed explanation, see Benford and Snow, 2000, pp. 618-622). For our study, we cover these dimensions as follows. Concerning identification and direction, the analysis focuses on how RE investments are thematically framed, in terms of environment, economy, society, technology etc., and how this provides meaning. Besides thematic coverage, inclusivity is limited to references about stakeholder involvement. Interpretative scope describes the basic orientation of the framing of social acceptance. This orientation ranges from more substantive and strategic aspects covering ‘advocacy’ and ‘impact’ to more instrumental aspects covering ‘stakeholders’ and ‘activity’.

Resonance, finally, is examined through the tone and ‘keying’ of expressions. Tone entails the positive versus negative stance towards the initiatives. Keying, as used here, refers to the extent expressions are more descriptive versus more activist. The descriptive variant corresponds to what Mooney and Hunt (2009), following Goffman (1974), characterizes as ‘flat keying’, corroborating and endorsing existing ideas, practices and aspirations. Flat keying includes the reporting of an intention, upcoming activity or impact matching institutional expectations and prevailing discourses. Examples are complaints about bureaucracy in developing ECIs. The more activist variant corresponds to Goffman’s ‘sharp keying’, entailing explicit advocacy for more radical moves in the way we think about, invest in, and review energy provision, for example by promoting a different lifestyle or aiming at a different future or radical independence. In the words of Dewulf et al. (2004, p. 185) the significance of keying helps in analytically interpreting and distinguishing different ways of framing ECIs in the public arena as beacons of change in the energy transition. With respect to thematic orientation, tone and keying are cross-cutting, amounting to a multidimensional characterisation of collective action frames.

The second concept is scale framing, referring to the way framing engages with specific spatial domains. In the words of Manfield and Haas (2006, p. 80): “scale frames work holistically to shape how people define the scope of problems and their solutions, which also allows them to interpret what is known and what is important”. Sites of practice absorb and employ different frames to support their (lack of) interests and actions, pitched at different spatial domains. Scale may even be decisive when it comes to identifying and defining the problem and solutions, both “simultaneous horizontal bounding and vertical or hierarchical ordering” (Moore, 2008, p. 214). Referring to the former, in the words of Lieshout (2011, p. 8), “framing the issue at a particular level makes it possible to include or exclude arguments, and even other actors without literally saying so.” Here, we are particularly interested in how the significance of ECIs, both in development and generating impact, becomes framed at the national level, and how distinctions emerge across urban and rural divides. The national level may serve, in particular, to connect with prevailing policy ambitions and discourses (Kooij, Lagendijk, et al., 2018), and as an active setting for articulating solidarity (Devine-Wright, 2011). For these reasons, we will make an analytical distinction between frames that primarily imply the local or regional scale, and those that embrace a national to global scale.

4. Methodology and data collection

4.1. Method

Our study examines framing through a media analysis. The attention for media coverage is warranted because of its known contribution to transitions. The media is an important player in co-producing images or story-lines (Loeb, Hager and Levidow, 2011), because it is an arena where framing and sense-making take place (Magnusson et al., 2021). Besides contributing to local and more general discourses (Holstead, Galán-Díaz and Sutherland, 2017; Lyytimäki et al., 2018), the media appears particularly important for demonstrating actor positions and stakeholder engagement, and through that, shaping policy collation and influencing policy decision-making (Ganowski, Gaede and Rowlands, 2018; Hager, 2009; Horsbol, 2013). It is important to note that, in doing so, we consider media more as a source than an agent of framing. Obviously, the way in which the media selects particular expressions shapes the public perception of innovation, constructs meaning (Culley, Ogley-Oliver, Carton and Street, 2010; Wright and Reid, 2011), and may draw attention from policy-makers (Ganowski et al., 2018; Holstead et al., 2017; Lyytimäki et al., 2018; Oteeman et al., 2014). How that works is part of this study.

Our empirical corpus consists of expressions drawn from national and local (provincial) newspapers (Annex 6), featuring ten selected ECIs (Fig. 1). Using media analysis is an efficient and effective way to collect a broad set of relevant frames: “mass media coverage of political issues
may serve as a surrogate for more direct expressions or solicitations of public opinion” (Mutz and Soss, 1997, p. 452). Nevertheless, one should acknowledge that a media analysis does not reflect all voices in society equally: certain opinions and perspectives are not, or only partially, included, because of various reasons (news-worthiness, sensation of the news, copy-pasting mainstream thoughts, etc.). A few individuals, for example, can create a lot of negative media attention, although their opposition may not be widely shared. Nevertheless, we see media analysis is a suitable method because it gives easy and standardised access to a broad set of frames through time (Veenman, Kusters and Beckers, 2021). Next to conveying public opinion, issues are brought to the public, through media framing (Olsen and Osmundsen, 2017). As Heidenreich (2016, p. 453) argues: “News media are important arenas where such communication and sense-making takes place”. A major benefit from media analysis is that expressions come with a clear indication of context and spokespersons, while scope and scale can be inferred relatively easily (Olsen and Osmundsen, 2017). As such, the media presents an important vehicle to get access to expressions bearing on ‘collective action frames’ as media reporting covers and shapes how we look at and deal with issues (Wright and Reid, 2011). More than subjects themselves, media brings to bear certain interpretations of events by selecting certain facts, meanings and beliefs (Linstrom and

Fig. 1. Geographical distribution of cases.
To cover a broad spectrum of ECIs across the urban-rural divide and across time, ten ECIs have been selected based on three criteria: location (different provinces in the Netherlands; rural and urban areas), date of establishment (older vs. newer initiatives), and technology (wind, solar, heat, and broader sustainability projects). The case selection shows a slight overrepresentation of wind energy. This is partly because of the historical focus of the paper, as wind energy is one of the oldest forms of renewable energy in the Netherlands. Next to this, wind energy is still one of the biggest sources of renewable energy, and hence it plays an important role in ECIs’ framing in the Netherlands as a whole. Another criterion was that at least 20 newspaper articles had to be found in the initial search (before screening). This stepwise selection resulted in the cases listed below.

Expressions were obtained from media database LexisNexis, through a selection of all newspaper articles between 1989 and May 2017 covering any of the above projects (using main and alternative spellings such as ‘Doarpsmûne Tzum’ and ‘Lochem Energie’). Expressions consist of 1–3 sentences characterising and explaining (opinions about) project status and development, plus context details. From a first set of 2079 hits, 671 articles were selected with initiatives reoccurring at least 15 times. Further removal of literal duplicates and out-of-scope articles produced the final dataset. The final corpus consists of 521 articles yielding 527 usable expressions.

4.2. Data treatment and analysis

Data analysis is based on the manual coding of expressions with the help of a coding scheme consisting of frames, divided into subframes (Djerf-Pierre, Cokley and Kuchel, 2016; Kauffmann, Lewadowski, Chorynski and Wiering, 2016; Semetko and Valkenburg, 2000). This involves a deductive and inductive part. First, frames were deducted from the literature and adapted to our case. Second, subframes were defined in an open (inductive) way making a basic distinction between expressions with a positive (supporting ECIs) and negative (opposing) tone. Open coding means that expressions are clustered around an emerging common (positive or negative) message, rather than classified through a given list.

As detailed under Results, this process yielded 17 subframes subsumed under six frames. In our process of identifying subframes, various further divisions and in-between categorisations have been considered and tried out. For instance, we tried a neutral tone between positive and negative expressions (Veeman et al., 2021). While certain expressions certainly tend to a more neutral position, it proved hard to make a sharp distinction with positively toned expressions. So, we decided to see all non-negative expressions as positive, and to keep the explicitly negative expressions as separate subframes. We also explored more specific subframes addressing economic benefits, conflicts and protest. In the end, these categories yielded very few results providing little extra meaning, so we decided to drop these. We acknowledge though that subframe classifications involve an often difficult trade-off between succinctness and comprehensiveness.

Next to thematic frames and tone, expressions have been coded along three other aspects to address concerns introduced before. The first aspect is ‘scope’, which has two basic orientations. More strategically, expressions can make references to social acceptance by articulating ‘advocacy’ or ‘impact’. More instrumentally, on the other hand, they can indicate the (non)support of specific ‘stakeholders’ and the (lack of) progress made in terms of ‘activity’. Second, regarding ‘keying’, expressions have been coded ‘sharp’ if they explicitly referred to the need for change (positive, like the need for a sustainable future) or to resistance and protest. Otherwise, expressions are coded as ‘flattened’. As explained above, the sharp-flattening distinction provides further detail to the extent ECI framing draws on ECIs’ transitional role (advocacy, impact) versus more instrumental exposure (stakeholders, activity). Examples of codes can be found in the Annexes. Third, so to deal with scale and scope, expressions have been coded as manifesting a local (including regional) versus national (including international) reach (see Annex 6). Finally, ECIs have been distinguished on the basis of their technology (wind versus solar) and age (until and after 2007).

Data collection yielded the following results. On average, after their establishment, the initiatives appeared in the media 5.1 times per year (starting in 1991, no items were found beforehand). There are large differences in media coverage between initiatives. Three ECIs (Lochem, Grunneger, Nijmegen) manifest a very high media coverage; the other projects show lower numbers (Table 1). The three high-scoring projects are each relatively young. Low scores stem from Tzum, a small project of a single village wind turbine (9 cites, after screening) and Breda (14 results). These scores are so low that Tzum and Breda will only be taken into account in aggregate findings. Together, the 10 initiatives are cited 527 times, 470 times in local newspapers and 57 times in national newspapers. Media coverage is even larger because many articles appear in more than one local newspaper, although they were only counted once here (limiting over-representation of frames). The data show some difference in the variations per frame, with more economic and innovation expressions coming from the national level. These patterns were in line with our expectations and have not been used further in the analysis. Finally, although our data search takes into account all items reported after the initiatives’ establishment, the distribution is highly lopsided. Items collected until 2010 only comprise 19% of the corpus. Unfortunately, this makes it difficult to undertake a systemic analysis through time. Hence, regarding the role of time, we will only use the initiatives’ establishment dates for our interpretations.

The remainder of the paper will discuss results and conclusions. Although, for the sake of clarity, we detail many findings through numbers, our observations chime with our qualitative, intersubjective readings of all expressions, in which all authors fully partook.

5. Discussing the results

Which light does the analysis of 527 expressions shed on ECIs’ historical framing in relation to RE investments and ambitions, and their spatial and scalar patterns? This section will respond to this question in three steps, covering (1) thematic orientation, (2) tone, scope and keying and (3) the urban-rural nexus.

5.1. Thematic orientation

As explained above, our framing analysis starts with the deduction of major thematic frames, drawing from previous work in the field (Djerf-Pierre et al., 2016; Hindmarsh, 2014; Wright and Reid, 2011). This literature yields a broad variety of RE media frames, including economic frames, environmental frames, science and technology frames, national security frames, political frames and civil society frames (Djerf-Pierre et al., 2016). In general, the economic,
Raven and Van Venrooij (2010) on bioenergy, and Heras-Saizarbitoria and ‘benefits versus costs’, or the efforts of technology and environmental frames appear to be dominant (Del-shad and Raymond, 2013; Skjølsvold, 2012; Wright and Reid, 2011). Economic frames refer to the business case for RE production, with references to ‘competitiveness’ and ‘benefits versus costs’ for individuals and companies. Environmental frames show (dis)advantages for climate mitigation, improving air quality, bioenergy, landscapes and impacts on flora and fauna (e.g. on birds by wind power) (Nichofer, 2016). Examples are the work of Stephens, Rand and Melnick (2009) on wind energy; of Wright and Reid (2011) on biofuel, of Skjølsvold (2012) and Sengers, Raven and Van Veenossi (2010) on bioenergy, and Hera-Saizarrbitoria et al. (2011) on solar energy. Prompted by our focus on ECIs and our coding experience, we decided to hold on to a conventional fivefold typology of economic, environmental, social, political and innovation frames (e.g. Djerf-Pierre et al., 2016), and add one category, namely ‘local development’. Although this ‘local development’ frame intersects with other frames, the local focus proved to be a distinguishable and helpful category, notably to shed light on ‘community’ acceptance.

Balancing between succinctness and comprehensiveness, we coded 17 subframes (11 positive and 6 negative). Annex 1 shows some examples of the media-expressions for each frame. Our analysis showed the following distribution, in decreasing order of frames’ shares in the total corpus (see also Table 2 and Annex 1):

The social frame (27% of expressions) is in line with the ‘civil society’ category of Djerf-Pierre et al. (2016). The frame relates to the social setting of the initiative, positive when it strengthens the community (‘community’) or builds bridges with other organizations and community partners (‘network’), and negative when the initiative is considered to harm the community by producing noise, flicker, and landscape pollution. While some of the latter may be based on ‘narrow-minded’ NIMBY attitudes, such protest should be seen in the light of shared concerns about the environment and feelings of place-attachment and autonomy (Devine-Wright, 2009, 2011; Wolsink, 2006; Batel, 2020).

The economic frame (24%) includes a subframe denoting economic benefits at the supra-individual level (village, city, region) separate from the general ‘benefit’ category based on yields at individual level (personal, business or organisational level). Negative economic frames range from specific references to excessive costs to broad indications of negative economic effects and adverse distributive issues.

The political frame (17%) encompasses the entire spectrum from the ‘high politics’ of democratic decision-making to ‘everyday politics’ of organizational work (Meadowcroft, 2009). The negative subframe here encompasses conflicts with the stakeholders. In nearly all cases, this entails external stakeholders (state, civil organisations, business, etc.). Positive political subframes come in two flavours. The majority announce the support of an external stakeholder for an initiative; a smaller group consists of the identification and promotion of (new) solutions, which are hoped to gain support.

The environmental frame (16%) splits into one positive and negative subframe. The positive subframe covers the contribution of initiatives to (broader) sustainability goals. The negative subframe expresses worries whether the initiatives make a sensible and timely contribution to sustainability transitions.

The innovation frame (8%) is predominantly filled by two positive subframes, emphasizing technological and social change respectively; there is also a negative category, covering the few cases doubt was expressed about the feasibility of an innovation.

The frame of local development (8%) consists of two positive and one negative subframes. The positive categories address social - liveability - and environmental - sustainability - aspects explicitly pitched at the local level. The negative category covers a few comments referring to land use regulations as obstacles.

At first glance, the overall distribution of (sub)frames does not raise concerns. One should take into account that subframes have been coded inductively, and that the ‘local development’ frame was added to single out expressions explicitly referring to the local level, generally with social and environmental connotations. Deeper insights stem from examining this distribution along the other framing dimensions, as we will discuss now.

### 5.2. Boosting the energy transition versus project development: tone, scope and keying

Regarding tone, the media reveals predominantly positive framing. As Tables 2 and 4 show, just under a quarter of expressions is negative, stemming primarily from the political conflict and social protest subframes. Political conflict has a strong instrumental nature. Most expressions of political conflict refer to lack of progress (‘activity’, 31 cites, Table 4). Here, expressions indicate that governmental bodies block

![Table 1](https://image.pollinationassistant.com/energy_policy_159_2021_112580-6.png)

| Name (abbreviation) | Location | Est. | Activities and technologies | # news items |
|---------------------|----------|------|-----------------------------|-------------|
| 1 De Windvogel (WO) | Ouderkerk a/d Amstel, Noord-Holland (rural) | 1991 | Exploits 5 wind turbines and 3 solar parks, sells electricity to consumer market, seeking expansion (co)exploiter of 16 wind turbines and one solar park, plans for new wind park. | 117 |
| 2 Deltawind (DO) | Oude-Tonge, Zuid-Holland (rural) | 1989 | Exploits a single village wind turbine, revenues go to village liveability projects | 74 |
| 3 Doarpemûne Reduzum (DR) | Reduzum, Friesland (rural) | 1992 | Exploits a single village wind turbine, revenues go to village liveability projects | 42 |
| 4 Dorpsmolen Tzum (DT) | Tzum, Friesland (rural) | 1994 | Exploits a single village wind turbine, revenues go to village liveability projects | 9 |
| 5 Grunmeger Power (GP) | Groningen, Groningen (urban) | 2011 | Supports private solar solutions, solar roofs on housing corporation buildings | 84 |
| 6 LochemEnergie (LE) | Lochem, Gelderse (urban) | 2011 | Exploits solar roofs, rents out electric cars, plans for wind park | 76 |
| 7 DuurSaam Breda (DB) | Breda, Noord-Brabant (urban) | 2011 | Plans for solar park, other sustainable (non-energy) projects such as water tap points and urban communal food gardening | 14 |
| 8 Lomboxnet (LU) | Utrecht, Utrecht (urban) | 2008* | Exploits charging network for electric cars | 29 |
| 9 Windpark Nijmegen-Betuwe (WN) | Nijmegen, Gelderland (rural) | 2013 | Exploits wind park (4 turbines), plans for solar park | 60 |
| 10 Thermobello (TC) | Culemborg, Gelderland (urban) | 2008* | Exploits a local district heating network | 22 |

† underlined cases older (vs newer) and using wind-energy (vs solar or other).
* formal start date 2003, real launch 2008 # counts, after screening.
Table 2
(Sub)frame scores in total and by technology, location and age.

| Frame     | Subframes (tone) | count | share | wind     | solar | urban | rural |
|-----------|------------------|-------|-------|----------|-------|-------|-------|
| EICs      | all              | 43    | 8%    | 4%       | 11%   | 4%    | 9%    |
|           |                   | 53    | 10%   | 5%       | 4%    | 12%   | 14%   |
|           |                   | 34    | 6%    | 0%       | 0%    | 1%    | 2%    |
|           |                   | 92    | 17%   | 12%      | 13%   | 19%   | 20%   |
|           |                   | 75    | 14%   | 16%      | 14%   | 14%   | 10%   |
|           |                   | 27    | 5%    | 7%       | 6%    | 5%    | 4%    |
|           |                   | 38    | 7%    | 1%       | 0%    | 10%   | 12%   |
|           |                   | 140   | 27%   | 24%      | 29%   | 20%   | 26%   |
| Grand total |                 | 527   | 100%  | 100%     | 100%  | 100%  | 100%  |
| No of EICs |                  | 10    | 5     | 5        | 3     | 7     | 4     |

*) De Windvogel also exploits various solar parks; the main activity is wind power.

Table 3
Shares of key aspects of framing in corpus and by case groups.

| Attribute       | All frames       | WO,DO,DR,DT,WN | GP,LE,DB,LU,TC | GP,LE,DB,LU | WO,DO,DR,DT,LE,WN,TC | WO,DO,DR,DT   | GP,LE,DB,LU,WN,TC |
|-----------------|------------------|----------------|----------------|-------------|----------------------|----------------|-------------------|
|                  | count | share | wind     | solar | urban | rural | <-’07 | ’07 > |
| Negativity       | 121   | 23%   | 32%      | 11%   | 9%     | 28%   | 33%   | 14%   |
| National reach   | 84    | 16%   | 19%      | 12%   | 13%    | 17%   | 23%   | 10%   |
| Advocacy         | 141   | 27%   | 23%      | 32%   | 34%    | 25%   | 25%   | 28%   |
| Sharp            | 105   | 20%   | 22%      | 21%   | 20%    | 20%   | 20%   | 20%   |
| Sharp-advocacy   | 72    | 14%   | 11%      | 18%   | 19%    | 12%   | 11%   | 16%   |

progress, notably municipalities and provinces, but also the tax office and other national bodies. A core example is the provincial opposition to the ECIs of Reduzum (9 cites). Political conflict also stems from opposition from political stakeholders (16 cites), such as political parties or associations. A key example is the enduring political opposition to the wind turbines in Nijmegen (6 cites). This contrasts with social protest opposition, where opposition primarily comes as negative advocacy hardly translates into ‘advocacy’ (25 cites), propagating the local annulment of transition in favour of landscape and liveability. Social protest opposition is directly related to citizens’ groups (12 cites under ‘stakeholders’). Not surprisingly, nearly all these negative expressions stem from wind projects in rural areas (Table 2). Economic framing also manifests a notable number of negative concerns reporting on financial loss (10 cites under ‘impact’) and lack of economic sense (6 cites under ‘advocacy’). This stems largely from two locations, De Windvogel, expressing major concerns about costs and risks of project expansion, and Grunneger Power, expressing more operational concerns.

As explained above, scoping addresses the question to what extent expressions refer to transition (advocacy, impact) versus more instrumental exposure (stakeholders, activity). Overall, the instrumental category predominates (60%), notably because there are almost three times as many expressions on stakeholders than on impact. The majority of messages features the support of stakeholders (200 cites). Identifying supporters presents an important media frame for most ECIs, especially more recent ones like Windpark Nijmegen-Betuwe. Positive stakeholder support is primarily linked to economic and community benefits, and less to environmental concerns. Support is accompanied by ‘activity’ expressions reporting progress through technological innovation, political and community support, and new solutions. While ‘activity’ and ‘stakeholder’ expressions are predominantly flat, it is interesting to note that the few (12) activity expressions that are sharp, tend to connect action to the overcoming of practical transition hurdles (e.g. ‘Like a true Don Quixote, the cooperative association fights a giant’, our translation, cit. 1.41).

Regarding scoping, particularly striking is that economic benefits for stakeholders (48 cites) exceed benefits accruing to projects and areas (32 cites under ‘impact’) and society (12 cites under ‘advocacy’). Also telling is that advocacy contains a large group of negative expressions (25 cites under ‘protest’). Positive advocacy stems from environmental expressions (48 cites under ‘solution’). Regarding keying, these expressions are also predominantly ‘sharp’ (Table 4, numbers in italic). Yet, on close reading, while these expressions invoke positive connotations of a better future and more wealth creation, they remain quite generic. Most sharp-
advocacy expressions (72) refer to achieving a more sustainable ('climate neutral') future in general terms. Only a few expressions are more compelling through the way they promote independence (e.g., ‘full self-sufficiency’, cited twice), ‘energy democracy’ (1), community cohesion (1) or new forms of living (2). Finally, it does not come as a surprise that ‘impact’ messages, like ‘activity’ and ‘stakeholders’, are predominantly flat. Not many expressions make a strategic link between impact and advocacy, which could have highlighted certain economic and local (‘livability’) benefits. Hence, on the topics of tone, scope and keying, we can conclude that both numbers and close reading signal quite a strong instrumental orientation.

5.3. Trends in the data: site and scale patterns

What does a further analysis of spatial and scalar patterns tell us? This section presents five main observations: (1) a somewhat growing orientation towards stressing societal benefits (sharp-advocacy), sometimes overruled by the practical need for manifesting support, (2) a spatiality of tone largely due to technology; (3) a lacking nexus between more material and social aspects of ECI development; (4) a scalar bias, notably in political and environmental expressions, towards national stakeholders and concerns, with no attention for a regional nexus of solidarity, and (5) scale framing as a function of age.

First, sharp-advocacy messages (Table 3, Annex 4) primarily stem from a selection of newer initiatives, namely Lomboxnet, DuurSaam Breda, LochemEnergie, and Grunneger Power. These ECIs manifest a sharp-advocacy share between 24% and 17%, compared with 14% for the whole corpus (Table 3). As a group, the newer initiatives manifest a significantly higher sharp-advocacy rate (16%) than the one established before 2007 (11%) (Table 3). This bias indicates that sharp-advocacy is connected with the actual stage of ECI development, more than with the societal role of established projects. This tendency seems overruled, however, in cases where it is vital to report on stakeholder participation, notably Windpark Nijmegen-Betuwe (where 41 of 60 cites fall under ‘stakeholders’) and Thermobello, Culemborg (15 of 22 cites under ‘stakeholders’). A similar instrumental overtone can be discerned for concentrations of ‘activity’ expressions, which prevail in sites with something at stake. In Utrecht, ten cites highlight the ambition of smart grid innovation. In Reduzum, nine messages detail how expansion is blocked by provincial policy. Finally, Lochem shows 24 cites on how new ambitions and investments meet community resistance. Second, tone shows a clear spatial pattern. Concerning negativity, this is ruled by political and social framing. If we add up the shares of the two negative subframes of ‘conflict’ and ‘protest’ (10% + 7% of the whole corpus, Table 2), five ECIs excel: De Windvogel (23%), DeltaWind (27%), Reduzum (31%), Tzum (22%) and Windpark Nijmegen-Betuwe (23%), all rural, wind-powered ECIs. Accordingly, negativity has a marked spatial pattern, notably along the rural-urban divide (Table 3). Some negativity stems from concerns about expenses, notably De Windvogel (14) and Grunneger Power (Groningen) (5). Because protest and conflicts are prompted primarily by wind-power initiatives, technology presents a strong co-determinant here.

Third, on the positive side, a noteworthy spatial pattern emerges through adding up the most material advantages: ‘economic benefit’, ‘environmental solutions’ and ‘technological innovation’ (see Annex 2). While for the corpus as a whole, 39% of all expressions belong to these subframes, this is considerably higher for LochemEnergie (50%), Lomboxnet Utrecht (59%), and Thermobello Culemborg (59%). Also, De Windvogel, Grunneger Power, and DuurSaam Breda score above average. These initiatives are able to draw more attention to broader societal advantages of the energy transition. De Windvogel and Grunneger Power, for instance, stress how members of cooperatives as co-owners stand to benefit from their investment, including by a lower energy bill, while LochemEnergie and Grunneger Power underline environmental benefits. Yet, our findings and readings show that this material emphasis has little connection with local or community development. The ‘livability’, ‘sustainable development’, ‘community’ and ‘network’ subframes cluster in some older, rural ECIs (notably Doarpsmûne Reduzum, 48%) and Dorpsmolen Tzum, 67%), while Grunneger Power, DuurSaam Breda and Thermobello score above
average. Although we cannot discern a clear urban-rural pattern here, this result signals a lack of correspondence between more material and social aspects of ECI development.

Fourth, scale framing sheds further light on how ECIs are framed with respect to local/regional versus national ambitions and concerns. At corpus level, 16% of the messages express a national range, and 84% a local range (Table 4, Annex 5). Yet, this comes with considerable variations between themes. More national expressions stem from environmental (27%) and political (22%) themes, and average results from economic (15%) and innovation themes and (17%). Social (10%) and local development expressions (2%) are manifestly local/regional. While the latter result could be expected, the national emphasis of political and environmental expressions warrants further explanation. The high score for the political themes stems from one negative subframe, namely conflict, in which 16 out of 37 cities address resistance from national actors, policies and regulation. This clearly reveals an explicit manifestation of scale framing, in which the national level is presented as a barrier for ECI development. In a similar vein, 22 out of 58 expressions on environmental ‘solutions’ emphasize (inter)national, rather than local sustainability ambitions and actions, strategically framing benefits at the national to global level.

These differences, finally, are further accentuated by the findings per initiative. Our data shows how older initiatives engage more with national debates, notably on the issues of national barriers. More concretely, higher shares of ‘national’ expressions (>20%) stem from Deltawind (28%) and Windvogel (23%). In contrast, the more recent ECIs Lomboxnet Utrecht, Thermobello Culemborg, and Windpark Nijmegen and Betuwe (Nijmegen) only show a few national expressions (<10%). Scale framing, accordingly, is a clear function of age. We can especially observe how, through time, framing shifts from largely instrumental and locally oriented expressions for young ECIs to more advocacy-oriented, national framing for established ECIs. Our findings here, in conclusion, accentuate the observed instrumentality of ECIs’ framing, although with some variations in time and space. This again speaks to the call for a more prominent, material and symbolic role of ECIs in the energy transition, something we further discuss below.

5.4. Limitations and research outlook

Our findings yield a rich, historical, multidimensional account of the representation of selected ECIs along the rural-urban spectrum. This also comes with some serious shortcomings. The data for this account has been based on a single type of source, namely (local, regional and national) newspapers. This poses three major limitations related to the dimensions of social acceptance. First, there is no account of how other media, notably social media, has represented and shaped public opinion. Next to the written press, a study of ECIs in radio and other audio-visual media might uncover a different way of framing ECIs. Second, the study has only selected cases receiving substantive attention in the public media, with limited longitudinal data across the cases. This also implies that we could not carry out a longitudinal study of social acceptance. While we do not expect very different results from the study of other media or initiatives, this clearly warrants further research. Third, we have only looked at social acceptance along different dimensions, and amongst different players, as covered by media framing. This clearly only presents a partial exploration of social acceptance. In other studies, we have devoted more attention towards the active role of stakeholders, policy-makers and market actors (de Bakker et al., 2020; Kooij, Lagendijk, et al., 2018; Kooij, Oteman, et al., 2018). Moreover, comparable to other media-based framing studies, the analysis could not unravel to what extent expressions primarily represent public concerns and sentiments, and to what extent media seeks to shape public opinion. Further research may zoom in onto the specific perspectives, attitudes and (framing) actions of local citizens, the media and other stakeholders affecting ECI development and acceptance, and other complexities of social acceptance (Wolsink, 2018).

As stated before, there is a slight overrepresentation of wind energy in our corpus (not in the number of cases). This is due to the historical focus of the paper and the dominance of wind energy as the main source of renewable energy in the Netherlands. Recent moves to solar and other sources are likely to yield a somewhat more impact-oriented and less defensive framing, although larger investment in for instance solar farms also manifest growing opposition.

6. Conclusions and recommendations

To meet the ‘Paris’ climate targets, Energy Community Initiatives (ECIs) have been assigned an important role in the Dutch RE transition, by adding production capacity as well as demonstrating change. ECIs thus require support, not only regionally, but also more widely by establishing solidarity between the areas of production (like rural windfarms) and areas of consumption (urban conurbations). Using media framing analysis, this paper explored how Dutch ECIs have been framed between 1989 and 2017, weighing their positive contribution to the energy transition and their support in terms of community and political acceptance, against negative perceptions of ineffectiveness and resistance. In doing so, we have examined the media framing of social acceptance to uncover key aspects of (non)support. Besides the positive/negative ‘tone’ of framing, the analysis revealed thematic foci (social, environmental, economic, etc.), scope (activity, advocacy, impact, stakeholder) and keying (flat, sharp). The analysis also zoomed in onto spatial (urban versus rural) and scalar (local versus national) patterns and divides. Rather than looking at framing and storylines from ECIs and core players themselves, the study focuses on media framing over time as an indication of the evolving ECIs’ social acceptance. Media presents a highly accessible and systematic source of historical framing data. We have sought to overcome certain shortcomings (like biases) of media coverage by making our data collection as extensive as possible.

A key issue in ECIs’ framing is the balance between more instrumental framing of (non)support for their concrete development, versus a more strategic framing emphasizing the (non)crucial role of ECIs for the energy transition. While, in view of the enhanced policy ambitions towards transition, both kinds of framing may obviously go together, we are interested especially in the extent to which framing has turned more strategic. What is the balance between instrumental and strategic framing, notably for more recent initiatives? Here, our results show that coverage of recent ECIs continues to be predominantly instrumental, stressing stakeholder support and progress made. While framing is mostly positive, it continues to testify of protest and struggles about new investments. Whereas recent investments are associated with local, material benefits, older initiatives tend to become more framed as beacons of transition. This conclusion is in line with an overall increasing social acceptance for renewable energy and ECIs regarding community and political aspects. However, on close reading, this contribution is expressed in a somewhat bland, unimaginative manner, confined to common references to sustainability and climate neutrality. Moreover, expressions regarding (expected) economic viability and technological progress appear more forceful than those covering environmental, social and spatial aspects. Within the broad spectrum of social acceptance for RE in general, economic aspects stand out. What is lacking, on the other hand, is a broader, spatially sensitive frame of transition to which ECIs transitional roles can be signified (cf. Ganowski et al., 2018).

To come to a recommendation, ECIs should find ways to portray themselves more actively in the media as beacons of transformation. In doing so, it may be helpful to connect more material and social aspects of the RE transition, something our spatial analysis found missing. To a certain extent, overall framing of ECI development has been taken up by umbrella organisations and intermediaries, e.g. national bodies such as HIER, Energie Samen, and more regional bodies ones such as GrEl and Us Kooperaasje (see also see also Kooij, Lagendijk, et al., 2018; Oteman et al., 2017). However, certainly from a perspective of spatial
embedding and solidarity, there appears a need for better strategic framing at the level of individual ECIs. An example is given here by more professionalised ECIs, which invest in story-telling, lobbying and influencing regional policies (e.g. ‘Burgers Geven Energie’ - Citizens Give Energy - in the Arnhem-Nijmegen region). A way forward is to further the collaboration between umbrella organisations and local ECIs dedicated towards actual implementation of community RE projects, also within the context of formulating and implementing Regional Energy Strategies. Moreover, such collaboration could explore how instrumental and strategic framing should go more hand-in-hand and strengthen one another.

Our spatial analysis further accentuates this view. Unsurprisingly, ECIs in rural locations score far more negative than urban ones. Expressions of protest and political conflict depict ECIs as harmful to the environment and community. Admittedly, this distinction can be fully attributed to technology, that is, to lasting resistance to investments in wind power. Our non-commercial solar initiatives meet positive responses. Nevertheless, our results indicate a lack of expressions supporting the development of a stronger regional scope and urban-rural solidarity. This will pose a further challenge for the development of Regional Energy Strategies. Rather than dismissing opposition as NIMBY, scale framing should help to support a broader vision on how urban needs and rural opportunities and conditions can come together. A question is thus which scale framings and tactics may help ECIs to support broader spatial visions on energy transition, community support, landscape protection, economic viability and technological progress. In such a challenging context, scale framing could also collect and present local achievements in bridging urban-rural divides (Mininberg, 2019). In doing so, ECIs’ support to the RE transition, materially and symbolically, could become more visible to policy-makers and the wider public. This is especially important in policy processes with involvement of multiple layers of government such as in the case of the Regional Energy Strategies (Hoppe and Miedema, 2020; Kempenaar, Puerari, Pleijte and van Buuren, 2020). Without a scale framing that shapes solidarities along the urban divide, there is a risk of downplaying the role of ECIs among the many stakeholders, from political actors to citizens’ groups, involved in regional policy processes.

Credit author statement

Conceptualization Kooij, Lagendijk, Otteman, Veenman. Methodology Kooij, Lagendijk, Otteman, Veenman. Software Kooij, Lagendijk. Validation Kooij, Lagendijk. Formal analysis Kooij, Lagendijk. Investigation Otteman, Veenman. Resources Otteman, Veenman. Data Curation Kooij, Lagendijk. Writing - Kooij, Lagendijk, Veenman. Writing - Review & Editing Kooij, Lagendijk, Veenman. Visualization Otteman Supervision NA. Project administration Lagendijk, Veenman. Funding acquisition NA.

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.

Annexes

Annex 1. Overview of themes of the frames and subframes, with examples from the empirical data collection

| Frame           | Subframes | Example                                                                 |
|-----------------|-----------|-------------------------------------------------------------------------|
| Economic        | Benefit + | Citizens get a great return on their investment of 5%, that is more than the bank gives (art. 9.78) |
|                 | Village + | I think that as a local business, you should keep your business in the region. And not let your money disappear in the pockets of a German or a Swede (art. 5.75) |
| Environmental   | Expenses -| Climate change is the biggest threat to our time and its consequences will not pass Friesland (art. 3.1) |
|                 | Problem emphasis + | The organisation that takes energy in its own hands. Away from the energy giants! (art. 5.54) |
|                 | Solution + | And it is good for the environment. A lot better than a coal fired power plant (art. 9.14) |
| Social          | Community + | The collaboration between [housing corporation] IJsselal Mensen and Lochem Energie is satisfactory for both (art. 6.72) |
|                 | Network + protest - | Gone is our beautiful horizon, gone is the beautiful setting sun (art. 2.25) |
| Political       | Conflict - | There is a bureaucratic wall at the Province (art. 3.13) |
|                 | Support + | The Mayor and City Council find it all fantastic (art. 7.35) |
|                 | Resolution + | Fifty villages demand village wind turbines (art. 3.34) |
| Innovation      | Technological + | They developed and implemented in the neighbourhood Lombok the first network of smart charging stations in the world (art. 8.7) |
|                 | Doubts - | Power grids are unable to cope with the intermittency of solar and wind energy (art. 8.4) |
| Local development | Social innovation + | Never before was a citizens’ owned wind park built so fast, and this is why we stand out from other initiatives (art. 9.40) |
|                 | Sustainable development + | With the profits, new local projects are being started that further the energy transition (art. 7.2) |
|                 | Livability + | The profits have been used to refurbish the community centre (art. 4.8) |
|                 | Land Use Problem + | The Council of State has ruled that the wind turbine may not be raised to catch more wind (art. 1.26) |

Annex 2. Overview of scope and key, with examples from the empirical data collection

| Key            | Flat | Sharp |
|----------------|------|-------|
|                | There is a bureaucratic wall at the Province (art. 3.13) | We want to be a link to an environmentally friendly way of life, to reduce the use of carbon and to shape a sustainable life (art. 2.87) |
| Scope          | Advocacy | halted by objections of people living near, who fear nuisance and horizon pollution (art. 1.141) |
|                | Activity | It is investigated where the turbines can best be placed (art. 1.111) |
|                | Stakeholder | Support within the municipality was strong (art. 1.113) |
|                | Impact | The placement of the windmill is making progress (art. 1.139) |
Annex 3. Examples of positive and negative codes from the empirical data collection

| positive                                      | negative                                      |
|-----------------------------------------------|-----------------------------------------------|
| income from current, financial compensation for participants and a significant interest (art. 2.95) | We lost 75000 euro by the bankruptcy of Trianel ... we can kiss our money goodbye (art. 5.61) |

Annex 4. Examples of sharp-advocacy expressions

- Is it just about the number of kWh or will it become a social movement that actually democratizes the energy transition? Energy democracy is referring to the idea that communities have the right to shape the energy supply of the future themselves (art 1.8)
- Members are not concerned with making money but with generating as much green energy as possible (art 2.52)
- My children and grandchildren should also be able to live here. The gas bubble in Groningen will run out one day. (art 6.5)

Annex 5. Examples of local and national codes from the empirical data collection

| local                                                      | national                                                     |
|------------------------------------------------------------|--------------------------------------------------------------|
| The gas bubble in Groningen will run out eventually (art. 6.50) | The development of electric driving is unstoppable (art 8.1) |

Annex 6. Overview of newspapers, organised according to scale

| local                                                                 | National                        |
|-----------------------------------------------------------------------|---------------------------------|
| De Stentor, BN de Stem, AD Utrecht, de Gelderlander, de Betuwe, Leeuwarder Courant, dagblad van het Noorden, Rijn en Gouwe, AD Rotterdam Dagblad, Provinciale Zeeuwse Courant, Eilanden Nieuws, de Weekkrant Groene-Overlakke, Eindhovens Dagblad, AD Groene Hart, Tubantia, de Brug Nijmegen, de Nijmegenaar, de weekkrant, Berkelbode, Zuipheus koerier, Rotterdam Dagblad, Alphen CC, Leidisch Dagblad, | Trouw, de Volkskrant, de Telegraaf, ANP, NRC Handelsblad, Reformatrisch Dagblad, Metro, Nedlyers Dagblad, Financieel Dagblad, Algemeen Dagblad, Nedlyers Dagblad, Vrij Nederland, |

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.enpol.2021.112580.

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