C H A P T E R

34

Contested scales of democratic decision-making and procedural justice in energy transitions

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1 Introduction

In parallel with recent community-led action, published research within energy democracy [1,2] and energy justice [3,4] has proliferated over the past decade. Though nascent, advancements are being made rapidly in both sets of literature, which include critical reviews offering extensive discussions on these emergent bodies of literature [5–7]. In this chapter, we respond to some of the noted shortcomings in the literature by (a) linking energy democracy to a wider theory of democracy, and (b) providing empirical evidence to ground energy democracy-related analyses. We use contrasting case studies from Canada and the United States to contribute to the conceptual debate on different understandings of energy democracy and how these manifest in diverse democratic contexts. Moreover, we showcase the importance of thinking pragmatically about the challenges of employing the concept of energy democracy in relation to regional (or non-local) energy policy.

Our aim with these case studies is to demonstrate how emergent social movements' actions to resist, reclaim, and restructure facets of a wider energy system [2]can politicize the deployment of energy infrastructure. Unlike the majority of the literature, our case studies also draw attention to other dimensions of democracy beyond direct citizen involvement to demonstrate democracy in practice across multiple governance scales and in different energy infrastructure and national contexts. In some instances, these processes involve the use of established democratic institutions (e.g., provincial elections in Ontario, Canada) to further

group interests across multiple governance scales. Further, our case studies illustrate how different types of infrastructure [onshore wind energy and unconventional oil and gas (UOG)] can shape democratic politics and how these facets may interact in different ways over space and time.

2 Energy democracy, liberal democracy, and justice

Given that our case studies are drawn from Canada and the United States, we nest our understanding of energy democracy within the wider democratic theory of agonistics [8] to offer a more general explanation for how energy becomes politicized within liberal-democracies. Modern liberal-democracy is characterized through the dynamic relationship between contradictory commitments to liberalism and democracy:

> On the one side we have the liberal tradition constituted by the rule of law, and the defence of human rights and the respect of individual liberty; on the other the democratic tradition whose main ideas are those of equality, identity between governing and governed and popular sovereignty. There is no necessary relation between those two distinct traditions but only a contingent historical articulation. *Mouffe [9, pp. 2–3]*

Neither tradition's values can be fully realized without risking the collapse of liberal-democracy because the exercise of democratic rights always entails exclusionary identity formation and the exercise of power in contexts of pluralism of values. In a liberal-democracy, limits are always placed on the exercise of sovereignty by the people, but these limits depend on contingent interpretations of what human rights mean at a given moment in a given context, and are thereby only the expression of a prevailing hegemony constituted by the exercise of power. These limits are therefore always contestable and set through pragmatic, contingent negotiations which may offer temporary stabilizations between contesting forces through the establishment of the hegemony of one over the other.

We conceive energy democracy as a bundle of processes through which individuals, groups, and incumbents attempt to exercise power over how and where energy infrastructure is deployed within a liberal-democracy. This suggests a related interest in procedural justice. Yet, accepting an agonistic characterization of the wider democratic context seems to preclude the possibility of a value-neutral conception of procedural justice or a theoretical solution to the paradox of liberal-democracy [8]. This conflict may be even more evident in cases where the idea of democracy is applied in one area (e.g., an entire country) and procedural justice across another (e.g., a city, town, or village). This scalar mismatch can reveal a tension, reorienting our understanding of what is fair, just, or even democratic—and to whom. Empirically, there are widely established metrics or terms through which both researchers and affected publics/communities evaluate whether a decision-making process was fair [10–15]. These metrics have also been widely operationalized in environmental decision-making best practice guidance [16]. Yet case studies also produce ample evidence of the fundamentally contested nature of what counts as the fulfillment of these procedural metrics for a particular decision-making process in a complex context [13,14,17,18].

We, therefore, do not evaluate our case studies against established generic metrics and from a limited set of perspectives. This would essentially amount to showing how certain processes fall short of a procedural ideal from the perspective of some actors. Instead, in this chapter, we compare how claims of injustice emerge from directly affected communities (i.e., communities proximate to wind farms and UOG), and the actions taken to contest the experienced injustice. We argue that relevant actors (e.g., politicians) need to think pragmatically about energy issues that span multiple scales (e.g., global, sub-national, local) and discuss how alternative (hypothetical) actions by provincial/state governments may have better served procedural justice and liberal democratic ideals.

3 Wind energy development in Ontario, Canada

This chapter's lead author (Walker) conducted graduate research in Ontario and Nova Scotia, Canada between 2011 and 2017. His focus was on better understanding the factors associated with local support and opposition to wind energy development [19,20]. Through a combination of interview and survey work with people living within 2 km of a wind turbine, his work contributed to the idea that procedural justice, and in particular the ability for local residents to impact a project, was the most powerful force in shaping local support [15].

His entire research program was shaped by rising local opposition to wind turbines in Ontario during the mid-to-late 2000s. In 2009 and just prior to beginning to pursue his master's degree, the provincial government passed the Green Energy and Green Economy Act (i.e., the Green Energy Act or GEA). This law severely limited local planning authority in the development of wind turbines, leaving municipal governments and local residents without the ability to say no [21]. Then-Premier of Ontario Dalton McGuinty was proud of the GEA, stating that the new law would not allow municipalities to object to wind turbines simply "because they don't like them" [22]. In practice, this meant that any renewable energy approval could only be heard by the provincial Environmental Review Tribunal (ERT), and under objections related to either serious harm to human health or the environment. McRobert et al. [21] write that such narrow statutory grounds made successful appeals very unlikely given such "evidentiary burden" (p. 13).

McGuinty and his Liberal government were able to pass the GEA into law because first, in 2007, they were elected to a majority government. With this power, and under the start of a global economic recession, they decided that a move toward more renewable energy generation was needed. The government wanted to build a "green energy" economy, and because of aging infrastructure and promises to eliminate coal-fired electricity, felt it had to invest in new kinds of clean energy projects [21, p. 1]. Indeed, public opinion polls from across Ontario also suggested the move toward building more wind (and solar) energy projects would be popular [23]. Yet, because less than 10% of Ontario's population was (and is) rural, it is not surprising that there was a high level of support for the idea of wind energy. That is because due to the practicalities of large-scale wind energy development, it is only rural communities that can possibly host turbines.

Unlike province-wide survey work, Walker's research looked at public opinion on the ground in host communities. In some of this work [15], he found that for a variety of reasons (notably procedural injustice), 79% of those living close to turbines (within 2 km) opposed them. His other work has shown how much anti-wind turbine sentiment has crept into policy discourse. One person interviewed even said of a local politician who later won his riding (i.e., electoral district), "his main platform is 'stop the turbines'" [24, p. 670]. That anti-wind energy political messaging was effective at the local level while being largely ignored at the provincial level suggests a mismatch between a kind of democracy that is dismissed versus one that matters.

Beginning only 2 years after the GEA was passed, people have written about how the Liberal approach to bulldozing rural autonomy or local decision-making ability in the context of wind energy contributed to recent losses in the two subsequent provincial elections [25]. Research has suggested that this lack of procedural justice [15], alongside the perception of negative health effects from turbines [26,27] and issues like property value loss to a lesser degree [28,29] was driving much of the anti-wind turbine sentiment. The focus of such opposition varied by community, though calls for larger setback distances (i.e., from 550 m) and outright moratoriums were the most common [30,31].

In combination with other factors [32], this opposition toward wind energy contributed to a loss of a Liberal minority government in 2018, when populist Doug Ford [33] led a Progressive Conservative Party to a resounding, majority win. Some of his earliest moves in office included removing both provincial carbon pricing [34] and the Green Energy Act [35]. This is in spite of the fact that such moves have since been unpopular [32,36] and have resulted in a myriad of extra costs and lawsuits [37]. Yet even today, and more than a decade after the GEA was passed, its destructive legacy still lives on. This is highlighted by the fact that 90 townships and counties in Ontario have rejected the environmental and socio-economic benefits of wind energy in passing largely symbolic resolutions stating they are not a willing host for turbines. Despite their lack of legal standing, doing so may have allowed for like-minded communities to come together, signal their discontent, and aggregate some kind of political momentum.

From our Ontario case, the take-home message may be that in attempting to drive renewable energy development via the power that was earned through successful provincial democratic elections, the Liberal government of Ontario failed those rural communities who actually have to live with the daily-life reality of wind turbines. Eventually, this caught up to them at the ballot box. If instead, the government had approached the wind energy file via local energy democracy (i.e., with elements of procedural justice), they could have realized that the strong local opposition was not irrational, but a sign of [energy] injustice. Addressing this problem could have been done in several ways—the most obvious of course is to not go forward with development at all. Though in the context of the climate crisis and a need to lower emissions from electricity generation, a better option may have been to develop policies and programs that promote community ownership and the ability to regain the decision-making power which comes alongside it. It would be difficult to imagine provincial-level support for wind energy would have been negatively impacted by such a move. In fact, evidence from across Europe suggests the opposite—that wider, mostly urban populations are more likely to support renewable energy development when done in ways that give local areas a voice and keep benefits within communities.

4 Unconventional oil and gas development, Colorado, United States

This chapter's second author (Ryder) studied issues of power and procedural justice in multiscale governance processes for regulating unconventional oil and gas (UOG) taking place near communities in Colorado. Taking place between 2016 and 2018, this consisted of 57 interviews with residents, as well as engaging in participant observation and critical policy analysis. In this research, she explored regulatory tensions between the state of Colorado and local communities, wherein historically the latter have had little say over how and where energy production occurs.

As UOG production has grown in Colorado (and the United States more broadly), so too have concerns over impacts to people, communities, and the environment [38–41]. Oil and gas have primarily been governed as a state-level issue, which has led to state pre-emption of local efforts to regulate the practice, particularly efforts at subjecting site proposals to local zoning regulations [42,43]. This is true even in states like Colorado, where Home Rule laws grant increased leeway to cities and counties to self-govern, and all other types of development are subjected to local zoning regulations [44,45]. In this context, justifications for local and state-level regulation are presented as normative. Proponents of local regulation draw on the creation of municipal zoning laws to serve the purpose of determining what type of developments take place where. Those in favor of state-level regulations point to the significant state-wide benefits (i.e., tax revenues).

As Colorado has continually denied local governments the right to regulate where proposed developments can be located, residents along the Northern Colorado Front Range (such as within the communities of Boulder and Fort Collins) formed organizations to push back on proposed fracking projects in their communities. They have asked for more stringent regulation and local autonomy, appealing to their local councils and state legislators. They have also filed lawsuits and successfully created ballot measures both locally—to create moratoriums and at the state level—to push for more strict regulations, particularly in terms of well setback distances. While short-term moratoriums (6 months) established by local councils have gone unchallenged, longer-term moratoriums (2 + years) passed by local ballot measures and councils (i.e., to allow for studies on health impacts) have been challenged by the state and the Colorado Oil and Gas Associations as they argue these amount to de-facto bans. Community activist efforts have been multi-faceted and unrelenting, as one participant indicated:

> We're trying all angles, right? We're trying the courts…we're lobbying at the state house and voting and doing a ballot measure. We're supporting Colorado Rising [an organization against 'neighbourhood fracking']…and we're working on the public, like ad campaign.

While a host of concerns have shaped proposed regulations, of utmost importance has been the push to expand the distance required between well sites and occupied buildings (i.e., homes, schools, and hospitals). Here, we focus on this driver to illustrate issues at the intersection of procedural justice and democracy in the context of energy decision-making.

Perhaps the best proxy for democracy in the United States is the public capability to vote directly on an issue at hand. As such, ballot measures are a crucial component of democracy and have been an avenue for pursuing democratic consensus on energy issues in Colorado. Over the last decade, organizations for and against more regulations of UOG have proposed ballot measures for the people of Colorado to vote on, both at the state and local levels. These

initiatives have been met with varying success, and offer insight into the importance of scalar thinking in the context of procedural justice and energy democracy.

On local levels, community members have created city or county initiatives where residents vote on placing moratoriums on fracking within their boundaries. In nearly all communities where moratoriums were placed on the ballot, residents showed a higher turnout and voted to approve these moratoriums. In several cases, these actions drew lawsuits from industry and were struck down as they operationally conflicted with state law. Yet there is at least a sense that the democratic practice of voting on the local ballot measures coincided with ideals of procedural justice—that is, those who would likely be most impacted by the decision had the capacity to influence the decision-making process.

Yet, if we focus on state-level ballot initiatives, we find that the overall will of Coloradans has not necessarily aligned with the desires of communities who face existing or potential impacts of UOG. Since 2014 in Colorado, at least nine ballot measure initiatives related to fracking have been put forward. Three of these initiatives aimed to increase setback distances, one was directed toward enhancing local control over UOG, and one was to ban fracking in the state. Of these five, only one (Proposition 112, a 2018 vote to increase setback distances to 2500 ft) made it to the ballot. Despite some speculation to the contrary, three of the four that did not make it on the ballot lacked sufficient voter signatures. Participants interviewed explained that various barriers—such as limited access to economic resources—can make it more difficult for organizations to put a measure on the ballot:

> You have a [state] constitution now that is becoming amendable if you've got enough money to pay for the signature gatherers. But if you're a grassroots effort, it's almost impossible…we've concluded that the system isn't broken, the system is fixed.

Further, efforts to stymie these local efforts represent potential threats to democracy. In 2016, a UOG organization donated over $1 million to Amendment 71, which changed the requirements needed for citizen-initiated ballots. It now requires petitioners to collect 2% of voter signatures from all 35 state senate districts. The Amendment was ultimately passed, and despite challenges to the constitutionality of the measure, it has been ruled constitutional. Even with this change, community organizations eventually succeeded in getting a measure on the ballot, which, one respondent frames as a win in itself:

> I think the ballot measure, I think running a statutory ballot measure is a big deal because that's citizen driven, citizen voice.

Finally, and despite making it to the state-wide ballot, 55% of voters rejected Colorado Proposition 112. Here, we can see a case of a democratically decided energy decision. Yet it also appears to constitute an issue of procedural justice, where those residents likely to be the most impacted by UOG development have been unable to meaningfully influence the decision. That is, more distant and state-wide voters, who might only experience indirect benefits of drilling via state tax revenues, had equal standing in the regulatory decision as people who lived nearby. Essentially, we see that what is democratically decided at a state level creates potential procedural injustices for localities facing drilling in both rural and urban areas of the state. If the decision to make this state-level change to the regulations were left to local communities meaningfully impacted by UOG, would it constitute a democratic process? This

example demonstrates the need to understand what bounds might be placed around the concept of democracy to ensure that democratic processes do not supersede the need for those most impacted by a particular decision to take a lead role in meaningfully influencing the corresponding decision-making process and outcome.

5 Discussion and conclusions

Set toward advancing an understanding within the bourgeoning field of energy democracy, our case studies reveal what we see as a scalar tension between the use of provincial/state democratic structures, and the procedural injustice experienced by local communities playing host to energy development. That is, when we look closely enough, we reveal strong anti-democratic actions toward people living closest to and most impacted by these energy projects. This chapter thus adds empirical evidence to the work of Sovacool [7] who argues that improving procedural justice at the local level in the deployment of renewable energy can produce "co-benefits" including improved democracy.

In this chapter, we employed a definition of energy democracy as a bundle of democratic processes aimed at exercising power over how [energy] infrastructure is deployed. In some instances, these are established processes specific to particular jurisdictions, such as provincial elections (Ontario) or ballot measures (Colorado). When these are seen to create undemocratic outcomes or injustices *at the local level*, we see the rise of more informal social movements, or self-identified reluctant activists (e.g., coalition of "unwilling hosts" in Ontario and local-level organizations in Colorado) that attempt to establish new ways of expressing group interests. In this way, we see the inherent tensions that exist within liberal-democracies [9]. Decisions to develop energy infrastructure must navigate this complex system where individual liberty is valued alongside popular sovereignty across spatial and jurisdictional scales. How each should be weighed and how we balance them in energy futures that are organized and governed across sometimes large (i.e., state/provincial, national, or international) scales [46] is a question that deserves more attention going forward. The Ontario case study in particular also adds further evidence that linking social science and geographic energy research [47,48] with rural studies may be a fruitful way to understand the urban/rural divide in energy transitions [49].

Perhaps our chapter's most significant contribution is that it demonstrates the usefulness of using an agonistic view of liberal democracy when considering multiple dimensions of democratic action in practice; including macro-scale processes (i.e., province or state voting mechanisms) alongside more deliberative, direct, and participatory actions (often at the local scale) [2]. This draws attention to the complex scalar interactions that constitute group identity formation and mobilization of diverse democratic mechanisms to further interests. In doing so we link the concept of energy democracy to a broader theory of democracy by showing how established and diverse democratic processes in two different liberal-democracies can be mobilized by opposing groups of citizens, elected officials, and incumbents to exercise control over energy infrastructure deployment. Furthermore, these same rules of the game can also be used to decrease democratic participation in order to further either renewable energy or fossil fuel interests. Contending groups do not just play within these fixed rules but also seek to use democratic mechanisms to limit the democratic processes available to their opponents.

Ultimately, our case studies identify clear tensions across local and sub-national scales that lead us to recommend a twofold understanding of energy democracy. First as a bundle of processes through which individuals, groups, and incumbents attempt to exercise power over how and where energy infrastructure is deployed within a liberal-democracy. There is great value in researching both conventional democratic processes of participation (voting) as well as more deliberative mechanisms of citizen input to decisions. Secondly, our case studies recommend an understanding of energy democracy as an outcome of new socio-technical configurations affecting communities through the unique spatial distribution of different types of energy infrastructure. We hope that by introducing these concepts into academic and policy discourse, we can stimulate more critical investigations looking at the underlying assumptions of energy democracy, including whose voices actually matter, and whose do not.

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