



Shared Yet Contested: Energy Democracy Counter-Narratives

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Conventional ways of communicating about the transition to renewable energy in North America presuppose that energy systems can be changed while sustaining existing social, political, and economic relations. Energy democracy counters such ostensibly apolitical narratives by emphasizing the socially transformative potential of this transition. Yet energy democracy, as both organizing principle and social movement, is itself increasingly recognized as flexible and contested. This research seeks to better discern and understand the practices and implications of energy democracy and its variants through synthesis and qualitative analysis of transition counter-narratives drawn from public communications of energy democracy initiatives actively working in northeastern North America. Transition narratives are examined through four constituent elements: collective-action frames that define problems, solutions, and motivations for sociotechnical change; discourses that describe values and norms of members of the communities of interest; sociotechnical imaginaries that describe and prescribe futures to be attained; and stories that connect past, present, and future and identify specific agents and adversaries to change. The research finds a set of diverse organizations across the region taking up and giving shape to the concept and goals of energy democracy, revealing a convergence among these initiatives around commitments to a socially transformational shift to collectively-controlled renewable energy systems. A comparison of transition narratives suggests distinct and potentially competing approaches to energy democracy, or multiple energy democracies, described as local and regional communities, public partnerships, and social movements. These energy democracies express differences in terms of social groups to be connected and empowered, theories of change and stability, form and specificity of institutional change, resistance to negative as well as promotion of positive agendas, and ability to work across scales. These differences can and perhaps must activate a productive tension among multiple energy democracies working for and within a democratized renewable energy future for this region. The paper broadly contributes to research on sustainability transitions by examining and comparing transition narratives at trans-national and sub-national levels, proposing a descriptive and analytical typology of transition counter-narratives, and initiating a data set for future research on regional social-ecological-technical systems to strengthen initiative-based practice and learning.

Keywords: energy democracy, renewable energy, transition narratives, social transformation, social movements, sociotechnical imaginaries

INTRODUCTION: ENERGY DEMOCRACY AND TRANSITION NARRATIVES

The project of shifting from fossil fuels to renewable energy sources is now widely recognized for its political rather than strictly technological or economic dimensions (Cherp et al., 2018). A broad political movement organized around renewable energy transition has not yet been clearly articulated, however. Energy democracy, as an organizing principle and social movement, offers the opportunity for groups promoting renewable energy to mobilize around an overtly re-politicized project for energy transition (Angel, 2016; Becker and Naumann, 2017). Advocates of energy democracy see in the renewable energy transition the possibility and even the necessity for achieving multiple social and ecological goals and outcomes through the process of ending fossil fuels and developing their renewable replacement (Burke and Stephens, 2017; Szulecki, 2018). In this way, energy democracy provides a socio-political counter-narrative (Davis, 2002, p. 25; Lieberman and Kline, 2017, p. 3; Nye, 2003, p. 14) to mainstream post-political transition narratives that position renewable energy transitions within a broadly dominant neoliberal hegemony (Mouffe, 2014a, p. 66). These dominant narratives, increasingly criticized for their inability to compel the desired level of action (Bushell et al., 2017; Sweeney and Treat, 2017), tend to approach the transition to renewables primarily as a matter of changing technologies and fuel sources, while taking as given a need to renew and sustain processes of accumulation (McCarthy, 2015) under a banner of the green economy (Gibbs and O'Neill, 2017, p. 162; Luederitz et al., 2017, p. 396).

As with the democratic paradigm more broadly, energy democracy would therefore appear to hold as a central concern not only technological change but also a creative transformation of social relations (Montgomery, 2016, p. 1992). Indeed, energy democracy has been described in terms of a political demand for just, democratic, and sustainable energy systems as well as a corresponding effort to institutionalize democratic energy governance through diverse and socially transformative forms of organization (Becker and Naumann, 2017). Yet energy democracy is also politically flexible and contested, involving divergent approaches, some of which may serve to justify and advance established notions of green capitalism and extend market relations (Angel, 2016; Tarhan, 2017). Energy democracy appears to move beyond reformist approaches to sustainability that emphasize technological or behavioral change but may be flexible in whether it takes a reconfiguration position, working to reconfigure modern energy systems, or a revolutionary position, working toward deeply structural societal shifts through processes of energy transitions (Geels et al., 2015, p. 9).

This current moment of transitions in the making (Turnheim et al., 2015, p. 240) opens an opportunity for energy democracy activists to disrupt and expand political imaginations and develop and implement tangible and targeted initiatives. This opportunity can be enabled through simultaneous processes of disarticulating the existing hegemony and re-articulating old and new elements

into more democratic configurations (Mouffe, 2014a, p. 67–68) as pre-figurations of alternative socio-ecological-technical systems (Turnheim et al., 2015, p. 249). Realizing this transformative energy vision will largely depend upon the capacity for groups working toward energy democracy to influence the direction of transition through both practice and persuasion (Davis, 2002; Bushell et al., 2017). To better understand and recognize energy democracy as part of a contemporary socio-political struggle, research can seek to uncover and analyze the central characters of this struggle, the contending mobilized counter-publics (Hess, 2017), their core political claims and arguments (Montgomery, 2016), and their motives and strategies on the ground (Turnheim et al., 2015, p. 244) as embedded within and publicly performed through particular locations and diverse social institutions and modes of organization (Jasanoff, 2015; Becker and Naumann, 2017; Gibbs and O'Neill, 2017; Hess, 2017).

This original research examines energy democracy initiatives and their transition narratives in northeastern North America to understand (1) how energy democracy works as a counter-narrative to mainstream energy transition narratives, and (2) whether and how a diversity of counter-narratives for energy democracy are presently communicated publicly and how they compare across this region. Transition narratives include and extend beyond stories about political life to serve as collective justification for actions to create sustainability transition pathways (Luederitz et al., 2017, p. 394; Wesley, 2014, p. 138). Such narratives of change, describing context, actors and plots of transformation (Wittmayer et al., 2015), may interact with social and systems-wide innovations and macro-level phenomena to produce transformative social innovations that challenge, alter or replace dominant institutions (Avelino et al., 2017). Narratives can support the efforts of communities of energy and climate change researchers and activists by collectively imagining, integrating and expressing broad yet detailed possibilities, rather than limiting the focus of transition to narrowly-prescribed institutional or political reforms (Moezzi et al., 2017, p. 6). As communicative strategies and practices for energy transition, narratives offer to communities of people an accessible, meaningful, and culturally- and historically-grounded approach to expand participation, diversify and anchor challenging deliberation, articulate and legitimate community values, and increase capacity for rethinking energy futures (Miller et al., 2015, p. 67). Like their constituent elements, transition narratives are stabilized through diverse social institutions including governments, businesses, sciences, the media and civil society, and in turn seek to influence and give rise to institutionalized change (Jasanoff, 2015; Becker and Naumann, 2017; Hess, 2017). The paper broadly contributes to research on sustainability transitions by examining and comparing cross-regional transition narratives at trans-national and sub-national levels (Jasanoff, 2015, p. 18), clarifying emergent ideal-type transition counter-narratives, and initiating a data set for future research on regional social-ecological-technical systems to strengthen initiative-based learning and support diverse and participatory analytical approaches (Turnheim et al., 2015, p. 244).

The following section on materials and methods summarizes the procedures used for defining and selecting cases of energy democracy, collecting data, and analyzing and synthesizing transition narratives. The paper goes on to present the results of this research, describing attributes of cases, a general energy democracy narrative, and diverse types of energy democracy and transition narratives for the region, and offers a preliminary set of factors related to this diversity. In the discussion section, the paper considers energy democracy counter-narratives in terms of their convergence and divergence, and their performative and transformative potential. These differences, it is argued, can and perhaps must activate a productive tension among multiple energy democracies available for guiding democratized renewable energy futures. A final section concludes by reviewing the contributions and limitations of this research and proposing ways to improve upon and extend this work.

MATERIALS AND METHODS

This section briefly summarizes the materials and methods used for this research. To investigate transitions in their particular spatial contexts (Gibbs and O'Neill, 2017, p. 169), the units of analysis include energy democracy initiatives and their transition narratives presently operating in eastern Canada and the northeastern United States. An *energy democracy initiative* (EDI) is defined as an organization or program that actively makes use of the term “energy democracy” to guide actions (Hess, 2018) or works to advance energy democracy goals and outcomes or policy instruments to achieve a renewable energy transition (Burke and Stephens, 2017). For this research, a *transition narrative* is defined by a set of elements used for ongoing public communications of an initiative, whether originating in an official source or used less formally by non-experts (Tidwell and Tidwell, 2018). Informed by Miller et al. (2015) and Wittmayer et al. (2015), these elements of transition narratives include (1) *collective-action frames* that define problems, solutions, and motivations for sociotechnical change (Eaton et al., 2014, p. 232–233), (2) *discourses* that describe values and norms of members of the communities of interest (Wesley, 2014, p. 137), (3) *sociotechnical imaginaries* that describe and prescribe collective visions of desirable futures to be attained in a given context (Eaton et al., 2014, p. 230; Jasanoff, 2015, p. 4; Jasanoff and Kim, 2009, p. 123), and (4) *stories* that connect past, present and future and identify specific human agents and adversaries of change (Moezzi et al., 2017, p. 2; Wesley, 2014, p. 138). This definition avoids presuming any specific social group as agent or adversary (Tidwell and Tidwell, 2018). Similarly, the “institutionalist dimension of energy democracy,” involving the issue of who should own and control energy infrastructure (Becker and Naumann, 2017, p. 4–5), is addressed within transition narratives in terms of new or existing organizational forms proposed as solutions for democratization.

An iterative process of online searches and evaluation of evidence yielded text source data and attribute values for a set of nine EDIs working within northeastern North America, as well as a broader data base of initiatives within this region available for further scholarly research through a publicly accessible repository (Burke, 2018). Analysis and synthesis of transition narratives for

the EDIs were performed through qualitative document analysis (Wesley, 2014), coding text data by categories of elements of transition narratives (Table 1), clustering similar organizational narratives, and constructing a transition narrative for each cluster of organizations. This process uncovered a set of attribute values useful for characterizing energy democracy initiatives, a generalized energy democracy transition narrative, three distinct types of energy democracy and their associated variants of transition narratives, and an exploration of possible relationships between attributes and types of energy democracy. Further details on case selection, data collection, and analysis and synthesis of transition narratives are described within the Supplementary Material to this manuscript.

RESULTS

Attribute Values for Energy Democracy Initiatives

The search and selection process identified a set of nine energy democracy initiatives as defined here, including: Canadian Union of Public Employees (CUPE); Confédération des syndicats nationaux, Québec (CSN); Co-op Power; Coule Pas Chez Nous; New England Grassroots Environment Fund (NEGEF); New York Energy Democracy Alliance (EDA); The Leap; 350.org; and Trade Unions for Energy Democracy (TUED). The researcher-completed surveys of primary sources yielded values for attributes relevant to sustainability initiatives within social-ecological-technical systems at the regional scale. Energy democracy as an organizing principle has been taken up by this set of organizations and programs operating within the region at local, regional, national, global, or some combination of scales. Both long-standing and recent initiatives, representing a range of organizational types, have taken to using the term. The initiatives examined here demonstrate a leadership approach described as either bottom-up or a combination of top-down and bottom-up, emphasizing social or a combination of social and ecological dimensions, often taking a holistic perspective to their analysis of problems and their proposed solutions, and organizing around available renewable energy technologies generally. Examples of evidence of these values as identified in the primary sources are presented here for the attributes “organization type,” “initiation or leadership approach,” “social-ecological emphasis,” “breadth of focus,” “geographic range/spatial scale,” and “available technologies.” The number of EDIs for each key attribute value is presented in Table 2.

McGinnis and Ostrom (2014) identify a broad set of organizational types used to characterize social groups including public, private, non-profit, community-based and hybrid organizations (p. 9). These general categories were used here to characterize the selected EDIs based on differences found within the text documents. For example, for an organizational type of cooperative, Co-op Power self-described as “a consumer-owned sustainable energy cooperative,”¹ for EDA, a community-based organization, “a statewide alliance of community-based organizations, grassroots groups, and policy experts working together to advance a just and participatory transition to a

¹<http://www.cooppower.coop/about-us> (Accessed 24 September, 2017)

TABLE 1 | Coding topics and descriptions of elements of a transition narrative.

Coding topic	Description
Collective-action frames	Problems, solutions, and motivations for collective action toward sociotechnical change.
Motivations for collective action	Specific events or phenomena that have occurred or are occurring at an identified point in time, which have inspired or sustain a sense of need for collective action.
Problems	Issues of collective concern (e.g., global warming, income inequality) that the group identifies as requiring action to address and improve.
Solutions	General types of responses (e.g., organizational forms, policies, strikes, demonstrations) promoted to address problems through collective action.
Discourses	Values and norms of members of the communities of interest, including the initiative, partners, and communities served.
Values and norms of members	Ideological commitments or normative positions that guide the collective behavior of members of an initiative.
Sociotechnical imaginaries	Desirable futures collectively described or prescribed in a given context.
Futures described or prescribed	Collective visions of a future that the initiative works to create and attain.
Stories	Periods of time and events connecting past, present, and future, and specific agents of and adversaries to the desired change.
Adversaries for change	Groups identified as preventing the attainment of a desired future.
Agents for change	Groups identified as holding the capacity for controlling the direction of change or occupying a central role for making change toward a desirable future.
Connecting past, present, and future	Selective descriptions of events and timelines that temporally position the work of the initiative and its members.

resilient, localized, and democratically controlled clean energy economy;² and for TUED, a hybrid organization, “a multi-partner initiative”³ coordinated by non-profits as part of a partnership between a public university and labor unions. These examples demonstrate differences in the language used for self-description of the EDIs, useful for understanding whether and how different forms of organizations publicly present transition narratives. Aside from cooperatives, no private sector initiatives or their hybrids were identified among this set.

Orenstein and Shach-Pinsley (2017) propose a set of characteristics of sustainability initiatives that may allow achievement of successful outcomes, including approach to initiation and leadership of initiatives (bottom-up and top-down) (p. 250). Interpreting the diversity of approaches across these categories and their hybrid can provide insight as to the potential for success both individually and as a group. Evidence suggested bottom-up and hybrid organizations within this set. For example, for a bottom-up leadership approach, NEGEF made the following statement: “Focused on all things local, the Grassroots Fund is the only organization of its kind dedicated to inspire, connect, and support community-based environmental projects throughout New England. Grassroot Fund’s niche is to help those on-the-ground, everyday people for whom grassroots work is a passion and whose volunteer time is a priceless contribution to the common good.”⁴ In contrast, a hybrid approach values both bottom-up and top-down, for example: “Trade unionism at CSN is based on the organization of autonomous trade unions. They

choose the rules that drive their union life. Our unions are masters of their decisions.”⁵ “In our democracy, it is imperative that the State assume its responsibilities in implementing the measures guaranteeing social solidarity and the best possible sharing of wealth produced. The State must act through laws, agreements and treaties, through taxation, supporting by all necessary means the public networks of health, education and social services and taking measures capable of ensuring income security to all citizens.”⁶ No exclusively top-down leadership approaches were identified.

Differences in relative emphasis on ecological and/or social systems may also influence effectiveness (Orenstein and Shach-Pinsley, 2017, p. 250). Evidence from the text data suggests social and combined social-ecological emphasis among these organizations. For a social emphasis, EDA stated that “We envision a renewable energy system that is led by and prioritizes solutions for low- and moderate-income communities and communities of color who are most impacted by our current energy and economic system. We transform our communities’ relationship to power through advocacy, organizing, job creation, coalition-building, policy research, and public education for an equitable, sustainable energy future.”⁷ Rather than a general statement on the value of sustainability, a social-ecological emphasis gives explicit attention to combined social and ecological concerns: according to 350.org, “Climate change is not just an environmental issue, or a social justice issue, or

²<https://edatestsite2.wordpress.com/> (Accessed 23 September, 2017)

³<http://unionsforenergydemocracy.org/about/about-the-initiative/> (Accessed 23 September, 2017)

⁴<https://grassrootsfund.org/about-us> (Accessed 24 September, 2017)

⁵<https://www.csn.qc.ca/mouvement/patrimoine/nos-valeurs/> (Accessed 21 September, 2017) (Translated from French)

⁶<https://www.csn.qc.ca/mouvement/patrimoine/notre-declaration-de-principe/> (Accessed 21 September, 2017) (Translated from French)

⁷<https://edatestsite2.wordpress.com/mission/> (Accessed 23 September, 2017)

TABLE 2 | Number of Energy Democracy Initiatives (EDIs) by attribute value ($n = 9$).

Attribute and attribute value	Number of EDIs
Province or state	
Massachusetts	1
New Hampshire	1
New York	3
Ontario	2
Québec	2
Year of initiation	
Pre-1970	2
1970–2007	2
2008–2017	5
Organization type	
Non-governmental/nonprofit	4
Private	0
Public	0
Community-based	2
Cooperative	1
Hybrid (mix of types)	2
Initiation/management or leadership	
Bottom-up	5
Hybrid (bottom-up and top-down)	4
Top-down	0
Social-ecological emphasis	
Ecological	0
Social	3
Social-ecological	6
Breadth of focus	
Holistic	7
Specific issues	2
Geographic range or spatial scale	
Local	0
Regional	4
National	0
Global	1
Cross-scalar	4
Available technologies	
All renewables	5
All renewables with specifics indicated	2
Specific renewables	1
Unspecified	1

an economic issue—it's all of those at once."⁸ No organization appeared to emphasize only ecological dimensions.

Outcomes are also understood to be affected by an organization's breadth of focus, seeking to address a more narrowly-defined issue or taking a more holistic approach (Orenstein and Shach-Pinsley, 2017, p. 250–251), where both approaches offer advantages. As evidence of a breadth of focus on specific issues, 350.org stated that "All of our work leverages

people power to dismantle the influence and infrastructure of the fossil fuel industry,"⁹ and "Keeping fossil fuels in the ground is the most important step we can take to prevent further climate change."¹⁰ Conversely, NEGEF, an organization demonstrating a holistic breadth of focus, stated that "Just Transition means shifting from dirty energy to energy democracy, from funding highways to expanding public transit, from incinerators and landfills to zero waste, from industrial food systems to regional food sovereignty, from gentrification to community land rights, and from rampant development to ecosystem restoration."¹¹

Geographic range or spatial scale provide both a means for characterizing organizations by location and spatial extent of activity (McGinnis and Ostrom, 2014, p. 8–9) as well as an additional factor proposed to influence their success when working in a specific context (Orenstein and Shach-Pinsley, 2017, p. 251). Here categories include local, regional, national, global, and cross-scalar. As evidence for a regional geographic range or spatial scale, Co-op Power described its scope of work as a "regional structure, organizing our cooperative as a decentralized network of [cooperatives],"¹² while for a global range, TUED includes "58 trade union bodies, including 4 Global Union Federations, 3 regional organizations, and 7 national centers... 10 allied organizations from the policy and academic communities... Unions presently participating in TUED come from 20 countries."¹³ As an example of a cross-scalar range, 350.org states, "With the growth in local groups, we've been busy organizing around the world and training the climate movement."¹⁴ None of these nine EDIs were found to orient their work strictly at the local or national levels.

Organizations are also characterized by the types of renewable technologies they articulate and emphasize within their efforts to transition, described here as available technologies (McGinnis and Ostrom, 2014, p. 5), suggesting both the form and the level of engagement with technology as key components of social transformation. This category includes either specific renewable energy technologies or renewables in general. For example, Coule Pas Chez Nous, an initiative focusing on specific available technologies, listed the technologies as "biomethane... biogas... geothermal... wind turbines... solar photovoltaic... passive solar... active thermal solar... hydroelectricity,"¹⁵ whereas the more frequently stated category of "all renewables" was indicated by CUPE as "We will support renewable energy that has a less harmful impact on the climate and the environment" (CUPE, 2013, p. 14), and by TUED in terms of "the need to restructure the global energy system in order to massively scale up renewable energy and other safe low-carbon options" (Sweeney, 2013, p. ii).

⁹<https://350.org/about/#history> (Accessed 23 September, 2017)

¹⁰<https://350.org/science/#causes> (Accessed 23 September, 2017)

¹¹<https://grassrootsfund.org/dollars/guiding-values> (Accessed 24 September, 2017)

¹²<https://www.cooppower.coop/what-is-a-community-energy-co-op/> (Accessed 24 September, 2017)

¹³<http://unionsforenergydemocracy.org/about/partners/> (Accessed 23 September, 2017)

¹⁴<https://350.org/2016-annual-report/> (Accessed 23 September, 2017)

¹⁵<https://www.coulepascheznous.com/alternatives#tabbed-content> (Accessed 22 September, 2017) (Translated from French)

⁸<https://350.org/about/#principles> (Accessed 23 September, 2017)

Additionally, organizations can be characterized and distinguished by the outcomes used to measure and communicate success for transition. McGinnis and Ostrom (2014) describe such indicators as social and ecological performance measures (p. 5), which can vary depending on the context. Accordingly, the specific outcomes varied across these initiatives, yet taken together they reveal a set of general priorities or performance measures for energy democracy in this region. Social outcomes include accountability, community resilience/adaptation, community sustainability, efficiency, employment, energy conservation, equity/justice, health/wellbeing/quality of life, participation/democracy/inclusivity, public/community ownership, public safety, reduced energy poverty, and sense of place. Ecological outcomes identified include clean air/clean soils/clean water, ecological resilience, environmental/ecosystem sustainability, reduced greenhouse gas emissions, and regeneration. Overall, the work of these EDIs is oriented toward achieving a broad set of both ecological and especially social outcomes, including mainstream outcomes such as community and environmental sustainability and energy efficiency and conservation, with additional emphasis on issues of equity and social justice, participation and democracy, and public and community ownership of energy technologies and infrastructures.

A Shared Energy Democracy Transition Narrative for the Region

The analysis revealed a set of topics or themes that indicate a convergence among the selected EDIs around a shared transition narrative. Events that have motivated collective action of these EDIs include: ongoing trends of social and environmental deterioration including especially global warming; a corresponding increase in awareness, activism, and sense of urgency; actual and potential risks of impacts to local environments and communities; and specific changes in energy policies and politics at all levels. The EDIs seek to address systemic problems of climate change and greenhouse gas emissions, fossil fuels, privatization and the primacy of the market; risks associated with fossil fuel projects and environmental degradation; and institutionalized economic, social, and environmental injustices. Members of these EDIs bring the values and norms of equity and justice, broadened public and community participation, concern for the well-being and resilience of social and ecological communities, and a perspective that connects deep social transformation with efforts to advance renewable energy and conservation. Overarching solutions center on increasing and innovating forms of public and community ownership and control over renewable energy systems, community development and public investments, low-carbon jobs, renewal of democracy and reorientation of government policy, sanctioning of the fossil fuel industry, and various other local and public solutions.

These efforts are temporally positioned in response to a continuation of historic harms, injustices and global inequities; the current moment of crisis, change, growing inequality, public scarcity and urgency for economic transformation; and a future of lasting struggle for true sustainability while

stewarding enduring energy sources. Key agents of change include citizens and communities, governments, elected officials and the public sector, activists and social movements, Indigenous groups, trade unions and workers, cooperatives, and businesses. The key adversaries to change include the fossil fuel industry, governments, public agencies, political leadership and political parties, private companies and corporations, financial institutions, and corporate and centralized state utilities. Sociotechnical imaginaries are generally described in terms of renewable and sustainable futures, and public communities and economies, envisioning a just and participatory transition to a diverse, resilient, democratically-controlled renewable energy economy in balance with the earth's limits, and allowing citizens, workers and communities access to real decision-making power, ownership, and control of the means of sustainable energy production.

Types of Energy Democracy Within the Region

Based on the coded content identified through the coding queries, the process of identifying patterns and themes for each element of transition narratives per EDI pointed to three plausible generalized types or models of energy democracy. These types are described as (1) Local and regional communities, (2) Public partnerships, and (3) Social movements. Two additional subtypes appeared important to articulate. Within "Local and regional communities," there was an emphasis on cooperatives, and within "Public partnerships," an emphasis on labor and trade unions. The relationships among these types of energy democracy are graphically demonstrated in **Figure 1**. Of the nine EDIs assessed, two (Co-op Power and NEGEF) were grouped under "Local and regional communities," three (CUPE, CSN and TUED) under "Public partnerships," and two (Coule Pas Chez Nous and 350.org) under the "Social movements" group. The remaining two (EDA and the Leap) were not easily characterized according to these recognizable societal divisions, did not demonstrate the same degree of particularity as the other groupings, and their patterns and themes of transition narratives indicated an intermediate tendency relative to the three types described. Rather than force a tenuous relationship or overemphasize similarities, the choice was made to address these initiatives within the overall energy democracy transition narrative presented in the previous subsection, while recognizing that the synergies of these models may inspire over time not only a blend of types but rather an emergence of unique and differentiated approaches to energy democracy.

As a descriptive tool resulting from the analysis of elements of narratives, the Venn diagram was used in combination with pairwise comparison diagrams to confirm the relationships based on the relative positioning of each EDI within the graphic. The comparisons largely confirmed the Venn diagram with only minor adjustments, with one exception being that the grouping of Coule Pas Chez Nous under "Social movements" demonstrated uncertainty in relation to the three "Public partnerships" initiatives, meaning that the coding comparisons between these EDIs could not be reliably represented. Thus, there is a degree of uncertainty regarding the positioning of this EDI with respect to the "Public partnerships" group.

Revisiting the coding for this EDI revealed a consistent focus on local government, municipalities, and related solutions. Because the relationships were more readily confirmed with the remaining five EDIs, the choice was made to retain this EDI within the group for “Social movements” for the purpose of developing distinct transition narratives. The three variants of transition narratives are presented in the following section and summarized in **Table 3** with emphasis on their divergence where relevant. Although these narratives include some of the same dimensions as identified by Becker and Naumann (2017, p. 6) (e.g., political objectives, modes of organization, technologies and resources involved, and spatial dimensions), the resulting typology of energy democracy differs here because the narratives were constructed based on elements expressed by initiatives themselves.

Variants of Transition Narratives

Local and Regional Communities

Local and regional communities are motivated toward collective action for energy transition in response to a general awareness of political and social trends that compromise the local and global environment and economy and the inability for local communities to consistently meet the social and ecological needs of their members. Communities presently face multiple and overlapping problems that weaken their resilience including climate change and environmental degradation, dependence on polluting energy sources that undermine public health, a fossil-fuel-driven economy, consumerism, militarism, and a legacy of exploitation of land, labor, and resources. The transition to community-scale, local renewable energy resources is one element of building healthy and resilient communities, yet the complexity and expense of these systems create barriers for communities. Overcoming these barriers while creating secure jobs and livelihoods requires new energy policies, support of innovative community and place-based projects and initiatives, grassroots work, local activism, civic engagement and direct democratic decision-making, and participatory energy planning within the context of a multiclass, multi-racial movement.

Community-based and regionally-produced renewable energy requires the development and advancement of new organizational and democratically-owned group-based business models including community-owned sustainable energy businesses and networks of community energy cooperatives that design and implement projects for and permanently anchor capital within local communities and the region. This networked and community-based approach is the work of everyday people operating within and across communities of the region, finding creative ways toward a sustainable future. Workers, community members, grassroots organizations and community activists, cooperatives, legislators, and cities and towns are to lead the way to clean energy economies, while corporations, large financial interests and energy industries pose the greatest obstacles. Energy cooperatives, guided by principles of democracy, autonomy, open membership, and mutual support, serve as key drivers of community and regional energy transitions.

Change begins at the local level, allowing those people closest to and most affected by current economic and environmental trends to determine their own solutions. This approach is legitimated and sustained by the deeply-rooted sense of place among neighbors, and their interests in their homes and communities defined both socially and ecologically. Social movements and grassroots organizations serve to educate, organize, inspire, and provide the resources for community-led change. Solutions imposed outside of communities and the region will surely fail. Community members themselves are empowered to access, own, and control locally- and regionally-generated energy and become effective practitioners of grassroots democracy, stepping up to co-create the long-term resilience of neighborhoods and towns through the development of all components of resilience, including energy, food, water, and livelihoods.

The organizing vision of the future includes a safer and healthier economy powered by 100% clean, renewable sources for all end uses based on maximized efficiencies, reduced demand, expanded storage, responsible siting of facilities, and a democratized power grid. This approach ensures a just transition for workers and communities and opens up the benefits of the green economy to low-income people and people of color. The transition must stay on track to drastically reduce global warming pollution by mid-century. This is a local, living economy of abundance rather than scarcity, grounded in ecological and social well-being, cooperation and regeneration, and inherently supportive of healthy, just, safe, and environmentally sustainable communities.

Public Partnerships

The motivation for a comprehensive, public partnership approach to energy transition stems from: a recognition of substantial gaps between actions needed to confront global warming and other social and ecological crises and targets as established by the scientific community; current impacts and the likely trajectory toward planetary catastrophe of current models of energy and economic development under a “green growth” pathway; failure to establish firm sustainability commitments at global conferences including Rio+20 in 2012; and possibilities opened by recent events, including the Paris agreement and the rise of global movements for climate justice and a just transition. Because economic unsustainability, global inequality, and environmental calamity share the same systemic roots, these crises must be addressed together. This work requires directly confronting the power of corporate control over energy resources, infrastructures, markets, and our collective political imagination, leading to a change not only of energy sources but also to the full spectrum of unsustainable and unjust features of the dominant political economy. Mainstream narratives of green growth and ecological modernization are grounded in destructive neoliberal ideologies that prioritize profit, commodification, extractivism, deregulation, corporatization, privatization and marketization, support ongoing use of fossil fuels and increasing use of energy, and sustain patterns of economic precarity, financial insecurity, global austerity, and systematic dismantling of the social welfare state. Future renewable-based energy systems

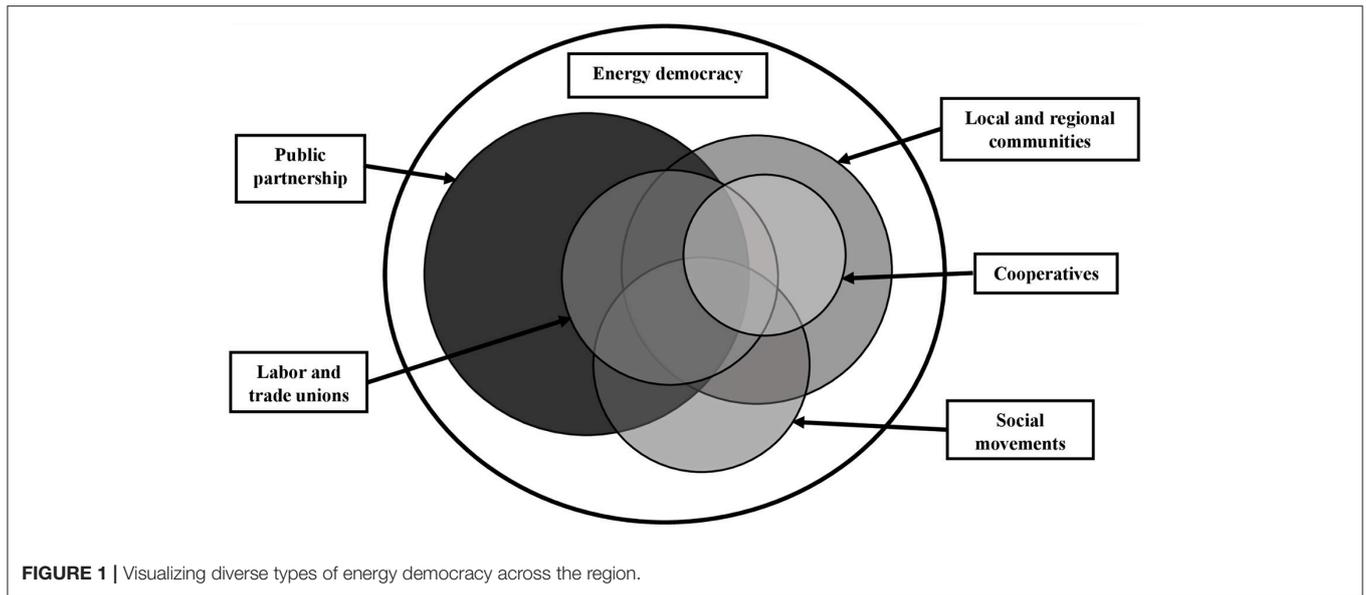


TABLE 3 | Comparative summary of variants of energy democracy transition narratives.

Elements of transition narratives	Local and regional communities	Public partnerships	Social movements
Collective-action frames	Ongoing trends at the local and global levels and an inability to meet community needs have inspired groups to work together on problems of insufficient community resilience, fossil fuel dependence, and complexity and expense of energy systems by advancing community-based initiatives, including cooperatives and community-owned energy businesses, grassroots and local activism, and citizen engagement and decision-making.	Failures of mainstream efforts and global agreements to achieve the change required have motivated action targeting the systemic roots of social, environmental, and economic problems, by shifting energy and other economic sectors to public and social control, democratically restructuring and reprioritizing governments, and increasing community planning and development, public investments, and public works programs.	Experienced local impacts, risks of energy extraction and transport, growing social movements, and policy changes at all levels have stirred direct action to confront the global climate crisis, fossil fuel expansion, and global inequities, by mobilizing to keep fossil fuels in the ground, stop industry expansion, and experiment with local sustainable livelihoods and new modes of living.
Discourses	Community health and resilience; secure jobs; participation and ownership; citizen and community control.	Rejection of green growth agenda and other neoliberal ideologies; just transition and empowerment of workers and communities; global solidarity; genuine sustainability.	Urgency of climate change; shared responsibility and shared benefits of transition; grassroots action; strategic alliances; energy and environmental justice.
Sociotechnical imaginaries	Localized, efficient, decentralized and democratically-controlled renewable energy powering local living economies and healthy, resilient, just, and environmentally sustainable communities.	Just, equitable and democratic societies and new political economies providing meaningful work, renewable energy, and other services as public goods and human rights while respecting planetary limits.	Strengthened local and global communities built by ordinary people using renewable energy to support viable livelihoods and a just, prosperous, and equitable world for all.
Stories	Everyday people working within and across local communities, grounded in a strong sense of place and empowered to overcome large financial interests and energy utilities, work toward long-term community resilience and economic and civic renewal.	Alliances of progressive labor movements, energy sector workers, citizens, and governments at all levels, building on a history of collective struggle and past accomplishments, confront established centers of economic and political power and restructure political economies.	Networks of community groups, social movements, and frontline communities, resolved to resist the fossil fuel industry and their allies and expose their misinformation campaigns, reverse historic global inequities and end the fossil fuel era.

are not achieved by making capitalism green and sustainable, or by shifting economic and political power of fossil fuel corporations to large, for-profit renewable energy multinationals. This approach is an extension of existing unsustainability. A focus on maximizing short-term profit, making market conditions work for renewables, and creating incentives for private ownership of renewable generation fails to protect workers and vulnerable communities and effectively places the fate of humanity and the planet in the hands of private corporations and bankers. The logic of the market is not compatible with the basic survival of the human species and other life forms, and must be replaced by logics of non-market, needs-based approaches that bring economic life into alignment with social and ecological necessity.

Solutions are to be found primarily through a reassertion of public and social ownership of energy and other key economic sectors, central to a deep, democratic restructuring of the global political economy. This approach is the most and possibly the only effective path toward decisively ending fossil fuels and deploying diverse (decentralized and centralized) renewable-based energy systems rapidly, equitably, and efficiently, while simultaneously protecting workers and communities, providing quality, stable employment, respecting ecosystems, and ensuring universal energy access. A public partnership approach requires democratization of public renewable power systems and services in cooperation with communities and social movements, strategic regional and national energy planning and community development, revival of the manufacturing and transport sectors, and complete transformations of production and consumption patterns. This project is not radically new, rather it builds on and revitalizes core principles of sustainable development and its combined economic, social, and environmental agenda, emphasizing access to decent work, economic development as social development, and respect for human rights and planetary limits. These efforts form part of long-term struggle for the common good led by working people, building on historical experience over the last century with responding to societal crises and advancing public works. This model now regains importance following decades of neoliberal policies and logics, including privatization of public assets and services, that have weakened the capacity of the public sector to address existing and future crises worldwide. The fight for working people is deeply interconnected to the fight to protect the planet. Ensuring the survival of life on our planet is a moral and ethical responsibility.

Working in a spirit of solidarity, key agents include progressive trade unions and labor movements, energy sector workers, citizens, local community groups and civil society, governments at all levels, public agencies and municipal utilities, environmental, Indigenous, and racial justice movements, as well as left and progressive political parties. New technologies are the impetus for change, the public sector remains the central driver of change, and work remains a key defining activity of the human experience. Households and cooperatives may play an important role over time, but presently there are not enough localized initiatives in practice to significantly alter present trends, nor does a narrow focus on distributed generation address the pace and scale of change required

to transform energy and economic systems, particularly the manufacturing sectors. Adversaries include groups advocating or aligning with mainstream green growth agendas, including wealthy federal, provincial and state governments, current political leadership, corporatized and conservative political parties, traditional unions, private and marketized state-owned fossil fuel corporations and investor-owned utilities, business interest groups, chambers of commerce and for-profit firms, well-established environmental groups, and mainstream global economic and political entities including the United Nations, the World Bank, the International Monetary Fund and the World Trade Organization. Energy, water, transportation, and other critical public services, are basic human rights and public goods to be supported largely through unionized public systems. Such systems are best controlled by ordinary people through partnerships with well-run and accountable public agencies and governmental leadership, using public works programs and diverse ownership models that provide decent, meaningful work and public-sector jobs, devolving power and decentralizing technologies as much as possible to workers, communities, and municipalities. Generation and transmission of renewable-based energy is returned to public control and ownership for meeting essential social and environmental priorities. This energy system will form the core of a new political economy grounded in social justice, equity, democracy, universality, and genuine sustainability.

Social Movements

With the Paris Agreement and related international accords as impetus, local and global networks of social movements advance energy democracy, following systematic targeting of communities and regions for extreme or risky energy extraction and transport projects, and due to a growing recognition of global warming trends and associated impacts across the planet. This lived experience, of large-scale fossil fuel projects, new coal and gas developments, fracking, pipelines, spills, contamination of water sources and arable land, and general expansions of the fossil fuel industry on one hand, and on the other, extreme weather events, deadly heat waves, severe droughts, loss of biodiversity, ocean acidification, melting glaciers, displacement of populations, and human misery stemming from a global climate crisis, compels widespread action to end fossil fuels and advance renewable energy. Climate change is real and impacting the global community now. Justice demands courageous action to avoid further climate and environmental catastrophe. All can and must contribute to this collective effort, as the issues are pressing and immense, requiring new ways of thinking, new modes of living, and diverse ways of learning among allies.

The most critical and urgent strategy is to ensure that fossil fuels stay in the ground. Fossil fuel projects must be delayed and cancelled, bans and moratoria on all new projects and infrastructure must be adopted, and credible and coherent plans for transitioning to 100% renewable energy must be made and implemented rapidly. Within a global grassroots movement, direct actions, mass demonstrations, and civil disobedience are key elements of this agenda. At the local level, this energy transition will require rethinking ways of living, reducing

consumerism, supporting low-carbon jobs, shifting to organic agriculture and permaculture, developing public transport, improving urban and community planning, and so on to reverse patterns of unsustainability, particularly in Western societies. This unsustainability is evidenced in the historical increase of atmospheric carbon dioxide. Civilization developed under specific and stable climatic conditions, yet as the use of fossil fuels increased and spread, the amount of carbon in the world's atmosphere and oceans has skyrocketed, now above 400 parts per million. Knowledge of global warming dates back more than a century. Since at least the 1970s, however, vested interests concerned with their bottom line have sought to create a sense of uncertainty regarding the science, contributing to a false debate that has prevented action and discouraged political leadership for decades.

Organizers, community groups and regular people have therefore stepped up and mobilized to protect homes and livelihoods from the impacts of the fossil fuel industry and climate change. This mobilization of activists and citizens unites diverse peoples and institutions locally and globally working at all levels of society, including citizens, landowners, Indigenous and environmental organizations, local authorities, farmers, artists, students, researchers, religious leaders, labor unions, institutional investors, and especially frontline communities who are suffering the worst impacts. Together these groups directly confront the power of the fossil fuel industry and their allies in government and finance and apply pressure on government agencies and elected officials to take bold action toward a 100% renewable energy future for all. This shift to a renewable economy based around sharing, mutual help and solidarity will help create viable livelihoods across the globe and contribute to a just, prosperous and equitable world built by the power of ordinary people.

Relating Attribute Values by Type of Energy Democracy

Charting EDI cases by selected attributes suggests similarities and differences of attribute values for each type of energy democracy. Within the “Local and regional communities” group, the two EDIs are located within the U.S. in relatively smaller towns. The organizations were initiated in 1996 and 2002. These EDIs include a cooperative and a hybrid community-based/non-governmental organization. Both indicated a bottom-up leadership approach and included a regional focus. These EDIs differed in their social-ecological emphasis and their breadth of focus. Both looked to renewable energy generally with a focus on solar photovoltaics.

The three EDIs within the “Public partnerships” type are located in major metropolitan areas in Canada and the U.S. This group includes the two organizations in operation for the longest period of time. The three EDIs include non-governmental trade unions and hybrid (non-governmental/public) organizations partnering with trade union organizations. All were characterized as a hybrid top-down/bottom-up leadership approach and a holistic breadth of focus. These organizations differed in their social-ecological emphasis and their geographic scope, and

described renewable energy generally or did not specify favored technologies.

For EDIs of “Social movements,” initiated in 2008 and 2014 in Canada and the U.S., both are bottom-up, non-governmental/non-profit organizations emphasizing social and ecological dimensions, and differing in breadth of focus and geographic scope. One EDI indicated specific renewable technologies while the other indicated all renewables. The two remaining organizations relating more broadly across all types are located in metropolitan areas in Canada and the U.S. Both are community-based organizations initiated in 2015 with a holistic breadth of focus. These EDIs differed in their leadership model, social-ecological emphasis, geographic range, and both looked to renewable energy technologies generally.

DISCUSSION

In contrast to conventional narratives of energy transition, this research finds a set of long-standing as well as recently emerging organizations and programs across the region organizing around the term and/or goals of energy democracy, in effort to advance a transformative shift from fossil fuels to renewable energy. The energy democracy initiatives take a variety of organizational forms, embrace bottom-up and in some cases combine top-down leadership models, emphasize ecological and especially social dimensions and outcomes, and often bring a holistic lens to the work. The EDIs work across geographic scales and often organize around renewable energy systems generally rather than specific technologies. Broadly, the evidence suggests that these initiatives can reasonably be characterized as critical (rather than liberal) (Tarhan, 2017, p. 17), democratic (rather than technocratic) (Montgomery, 2016, p. 1982–1983), reconfiguration or revolutionary (rather than reformist) (Geels et al., 2015, p. 9) and potentially transformative (Avelino et al., 2017, p. 4) positions of energy democracy, social innovation and sustainability transition. They thus do represent counter-narratives and the mobilization of counter-publics (Hess, 2017) engaged in efforts to articulate and serve a broad and reimagined public interest. Together these efforts demonstrate a clear example of diverse publics actively engaging in energy transition (Miller et al., 2015) and re-politicizing narratives of energy transition (Meadowcroft, 2009; Stirling, 2014).

The study uncovers a distinct set of archetypical transition narratives for this region (Luederitz et al., 2017, p. 404), finding both a convergence and divergence among them. Similar to the three energy democracy approaches described by Becker and Naumann (2017), these regional narratives converge around a shared commitment to high levels of renewables, a preference for public and local control over energy systems, and a view of energy change as inseparable from broader changes to communities, politics and economies. In this view, social, economic, ecological, and energetic crises are fundamentally intertwined; all will change together and all must be addressed together. Framings for collective actions demonstrate a shared set of motivating events that link impacts to communities with global trends, agreements, and failures. Action is largely directed toward addressing climate

change and fossil fuel dependence. In proposing solutions, these transition narratives shift away from market-based energy systems. Rather, this set of EDIs, “united in championing new modes of organization that break with international regimes of accumulation in the energy sector” (Becker and Naumann, 2017, p. 9), emphasize a broad set of organizational solutions centered on communities and the public sector and based on alliances and intersections among diverse social movements. This integrated stance regarding technological change is further evidenced by the tendency among these narratives to seek solutions in renewable energy technologies in a general rather than specific sense, suggesting that energy democracy as expressed here considers the non-technological dimensions of energy systems change at least as important if not more so than the technological dimensions. Likewise, among these groups, limited attention has been given to critically assessing specific renewable energy technologies and the degree to which different technical systems may support an energy democracy agenda, which may indicate either a gap in knowledge, an unexamined belief or an implicit rejection of technological determinism. The narratives express values of responsibility and capacity to act, participation, cooperation, equity and sustainability, envisioning shared engagement with energy systems that support a prosperous and just future, emphasizing meaningful work and sustainable livelihoods. Perhaps most notably, these narratives identify a shared set of adversaries, while emphasizing the interconnected roles of public partnerships and trade unions, local and regional communities and cooperatives, diverse groups of social movements, and similar to Szulecki (2018), the importance of citizens in steering the energy transition and owning and controlling renewable energy futures.

This shared energy democracy counter-narrative draws from the voices of groups presently active across this region who utilize and self-define this notion of energy democracy through their public communications, rather than drawing upon theoretically-derived concepts (Hess, 2018). The shared regional narrative suggests an available and potentially effective alternative to dominant narratives, their positioning of the private sector and for-profit corporations as the key agents of change, and their scope of available energy policies and politics that are increasingly viewed as insufficient to the task of transition. The findings suggest transformative potential of this set of initiatives by linking transition narratives with innovation of energy systems and broader macro-level trends and events to produce social transformation (Avelino et al., 2017). The regional energy democracy narrative may prove more effective by providing a shared and inclusive statement of what, why, how, and for whom members of these organizations and their associated communities across political jurisdictions and sectors of society are taking action (Bushell et al., 2017). The practical implication then is that the functions of these initiatives and their narratives are not mutually exclusive and may facilitate joint policy-making and activism (Becker and Naumann, 2017). Employed flexibly and strategically as a co-productive synthesis, a shared narrative may serve to complement, integrate and tie together diverse initiatives, organizations, and campaigns for energy systems change, increasing their collective prominence

and motivating action toward a positive and comprehensive vision of the future (Jasanoff, 2015; Avelino et al., 2017; Becker and Naumann, 2017; Bushell et al., 2017; Moezzi et al., 2017; Hess, 2018).

Differences across all elements of transition narratives also suggest the possibility for a diversity of counter-narratives for the region. For collective-action frames, there is difference in the degree of focus on local lived experiences, with social movements especially motivated by experiences with specific risks and events impacting local communities. The framings of problems overlap, yet as with the associated attributes, a more holistic breadth of focus was found within the narratives of public partnerships and social movements, which place greater emphasis on systemic problems. This problem framing then points to differences in proposed solutions, with the narrative of local and regional communities proposing positive, community-oriented, and often policy-based solutions while saying little about struggle or opposition. The narrative of public partnerships and social movements are fundamentally organized around struggle and conflict, with the former emphasizing more targeted political change and comprehensive planning and the latter emphasizing broad but arguably less defined cultural change. The narratives also diverge in their emphasis regarding which modes of social organization, e.g., local businesses, cooperatives, municipalities, and other governments, should be supported, developed, and reformed. The social movement narrative appears to offer relatively less specificity on organizational reforms as solutions, whereas the local and regional narrative emphasizes local organizations as solutions and public partnerships emphasizes multi-scalar public restructuring.

Beyond general convergence around a core set of values and future visions, the findings suggest that the public partnership and social movement narratives express a stronger critical or oppositional positioning and commitment to global solidarity. The imaginaries of the local and regional, public partnership, and social movement narratives are respectively constructed to work primarily at the local, trans-local, and national/transnational levels. While the narratives converge around the element of stories, important differences are found with respect to the key agents of change within broadly shared alliances, the degree of specificity of adversaries, and the set of historical experiences that the current work is understood to extend. The main agents of change are identified by the names given to each narrative of energy democracy, with public partnerships underscoring the role of state and local governments relative to the positioning of groups of citizens as change agents in the other two narratives. The local and regional narrative refers to adversaries in vague terms and lacks a depth of engagement with the core issue of social power, while public partnership and social movement narratives generally name specific individuals or entities as a way to target key loci of power, albeit emphasizing different levels of governance. Convergence around futures interestingly stem from diverse historical experiences, where once again the public partnership and social movement narratives include a greater emphasis on historical conflict (extended or more recent) while the local and regional narrative seems to connect past and future not through conflict but as recovery, suggesting a yearning for a

lost ideal of self-determined communities. Overall, these findings imply differences regarding the possibility for energy democracy to connect, empower, or disempower specific social groups, to include robust theories of change and obduracy, to focus on specific institutional change, to resist negative as well as promote positive agendas, and to work across scales.

Minding these potential differences among this set of energy democracy narratives allows for speculation regarding their potential value as counter-narratives for social transformation. While collectively an energy democracy narrative serves to bridge differences across social groups (Hess, 2018, p. 180), the narrative of local and regional communities may offer less capacity for bridging groups or influencing policy changes or technological solutions at larger scales (i.e., energy system regime) as compared to the other narratives. Likewise, given their greater emphasis on historical episodes, specific adversaries, imbalances of social power, and negative as well as positive dimensions of the future, public partnership and social movement narratives may prove more useful for helping agents make sense of and respond to past, present, and future events or trends and better appreciate what is at stake. These narratives do not focus narrowly on political targets but rather offer broad and detailed visions that may lead to more integrated approaches and a wider set of solutions for renewable energy transitions (Moezzi et al., 2017). On the other hand, the local and regional narrative, and the social movement narrative to some degree, may serve to inspire concrete actions by emphasizing direct benefits of renewable energy to people's everyday lives and by stressing local community identity, thus appealing to psychological and sociological drivers of behavior change (Bushell et al., 2017). Further, an emphasis on the role of marginalized or vulnerable communities, as articulated in the social movement narrative, may more effectively change who speaks and whose voice is heard in the process of energy transitions. Of course, this assessment can only point toward transformative potential. Ultimately the effectiveness of any narrative requires evaluation with respect to its ability to lead to action toward and achievement of a desirable future (Bushell et al., 2017).

These transition narratives may likewise vary in the degree to which they can be considered as counter-narratives to the neoliberal hegemony (Geels et al., 2015, p. 9). The narratives of public partnerships and social movements appear firmly positioned within the reconfiguration or revolutionary positions, whereas the narrative of local and regional communities appears flexible regarding the reformist position, in line with the analyses of Luederitz et al. (2017, p. 397) and Tarhan (2017, p. 17), and thus potentially more vulnerable to cooptation (Angel, 2016, p. 11). This claim has less to do with the solutions, visions, or futures that this narrative describes, and more to do with a lack of breadth and depth of analysis of historical context, problems and adversaries. In other words, the concern involves not so much what is in but rather what is left out of the narrative, perhaps overemphasizing the opportunities of renewables while neglecting engagement with the realities of current energy systems. There is similarly an important difference in terms of the stance on the future of fossil fuels across narrative types; what role fossil fuels will serve going

forward, and how, if at all, energy democracy will engage, and even democratize, these currently dominant energy systems while concurrently developing systems based on renewables. Does a democratized energy system largely ignore hydrocarbons, fight to keep them in the ground, or use them strategically to support energy transition and protect the most vulnerable? Each narrative appears to take a different position on this question.

Following Geels et al. (2015), the more revolutionary narratives face threats of another sort, possibly limiting their potential for affecting deep social change through energy transition. Rather than broad societal change, a more targeted or subject-specific focus (Orenstein and Shach-Pinsley, 2017, p. 250–251) limited to overhauling and democratizing modern energy systems (Geels et al., 2015; Szulecki, 2018), still far from simple, may yield greater gains. In other words, there may be benefit for these initiatives to further reflect on the necessary balance between a holistic or issue- or sectoral-specific focus to successfully achieve outcomes, in the same way that they appear to have presently found a balance, as a group, between top-down and bottom-up leadership, social and ecological emphasis, and diversity of spatial scales (Orenstein and Shach-Pinsley, 2017). Targeted projects focusing on changing the energy sector offer the additional benefit of learning-by-doing, blending testable approaches, small-scale yet networked experimentation, and use of both top-down and bottom-up leadership (Mason, 2015, p. 265).

This analysis therefore tentatively proposes three different approaches or layers of energy democracy across the region, with degrees of difference related to the problem framings, the form and specificity of solutions, the critical stance, the historical positioning, and importantly, the scale, agency and mode of social organization. From another point of view, we could describe these narratives as representing rather multiple *energy democracies* (Hess, 2018, p. 185–186), due to their varied meanings, emphases, implications, and transformative potential (Avelino et al., 2017; Rivera-Ferre, 2018). Theoretically, these multi-layered differences complicate efforts to characterize or position energy democracies along typical binary divisions (e.g., centralized-decentralized, reformative-transformative) although such distinctions may be usefully applied in further analysis. In their performance, these multiple energy democracies and their narratives will likely vary in who they bring together, at what scale they operate, and in how they effectively empower, confront, or constrain social groups, provide sense of meaning and explanation of events, and justify targeted policy, organizational, and behavioral changes.

These perceived differences across narratives are not necessarily a disadvantage for advancing energy democracy. Firstly, the narratives are correctly understood as plausible rather than definitive interpretations or representations of the perspectives of these initiatives and their members. Likewise, as illustrated in **Figure 1**, this research finds considerable overlap among transition narratives, so the distinctions drawn should in themselves be considered flexible both theoretically and practically. This flexibility across counter-narratives may prove an advantage in targeting or bridging specific audiences while

retaining a fundamental distinction and meaning (Bushell et al., 2017). Additionally, the priorities of one narrative can be used to broaden or shift the emphasis of another. For example, the public partnership narrative arguably holds the broadest formulation of the issue of social power, the social movement narrative focuses sharply on the issue of ending fossil fuels, while the local and regional community narrative carries a strong commitment to involving everyday people working in places of meaning.

Lastly, given a democratic agenda, such differences may not only be unavoidable but also desirable (Hansen and Sonnichsen, 2014; Mouffe, 2014b), as diverse groups struggle to develop and implement a new form of hegemony based on values and norms centered on justice and sustainability. This suggests the emergence of what democratic theorist Chantal Mouffe describes as a *conflictual consensus*, a situation in which social agents share a commitment to a set of ethical and political principles yet disagree about their interpretation (Hansen and Sonnichsen, 2014, p. 268). While currently offering a counterhegemonic approach, these diverse counter-narratives of energy democracy within this region may offer the basis for engagement as political contestants, rather than political enemies, through ongoing democratic argument *within* a democratized energy future, in the endless quest to achieve outcomes such as justice and sustainability. This view of energy democracies suggests multiple and competing energy transition pathways and political projects that engage through processes of political conflict as well as continuous dialogue and co-learning (Bushell et al., 2017; Luederitz et al., 2017). In this way, the presence of a variety of positions as and within energy democracy at this moment of pre-figuration is a potential strength, offering both a shared opposing stance as well as multiple interpretations for defining and refining visions and imaginations of new energy politics, new energy cultures, and new energy futures.

CONCLUSION

This analysis of public narratives finds and compares energy democracy counter-narratives that have emerged through use and promotion among organizations active across eastern Canada and the northeast United States. Across this region, energy democracy as a narrative for energy transition converges not only around a shared commitment to shifting to renewable energy systems, but crucially using collective control and in a transformative manner for communities, politics, and economies. A comparison across four elements of transition narratives identifies difference in themes and emphases, suggesting three plausible, distinct, and potentially competing approaches to energy democracy, or multiple energy democracies, described as local and regional communities, public partnerships, and social movements. The intention here is not to propose these narratives as factual representation of energy democracy, rather to offer them and their principle elements as useful means for thinking about differences within an emerging phenomenon, open to further

analysis, verification, and revision. As such, the value of this typology is both descriptive, in identifying and sharpening differences, and analytical, in drawing out implications of these differences.

This research has taken a step toward allowing these diverse groups to hear and learn from one another. Recognizing that actors can project but never fully control transition narratives (Bushell et al., 2017), the practice of energy democracy may take into consideration these dynamics of convergence and divergence when communicating with different groups of people, mapping out alliances, and considering their strategic integration and experimentation. There may be benefit in networking across differences, to leverage the diversity of attributes across complimentary initiatives, adapt to changing circumstances, resist dominant agendas, and increase capacities and resilience across the region. For example, governments and the public sector could prioritize development of capacities at the community level, communities could give more attention to the wide ranging and holistic demands and perspectives of a broadly defined public, while social movements could benefit from strong partnerships with governments and communities.

Further research could build on this work in several ways. Although this research offers an approach to standardizing search methods, online research may miss important instances of energy democracy initiatives, and therefore the procedure for discovering and selecting these cases could be further tested and refined. More broadly, methods can be advanced for reconstructing and analyzing transition narratives in terms of their production and role as well as their content (Wittmayer et al., 2015). Expanding the set of initiatives included for analysis and providing greater empirical substantiation would clearly be an important next step to confirm or modify the groupings and narratives as suggested here. The data set provides a basis for this expansion (Burke, 2018), including at the time of this research an additional 44 organizations or programs across the region for which further inquiry may yield sufficient evidence for analysis (see Supplementary Material). A systematic assessment of differences would benefit from such an engagement with a broader set of initiatives. Connecting more directly with French-language scholarship on sustainability transitions would also be worthwhile for this region (e.g., Audet, 2015).

Conversely, while this work takes a high-level, regional perspective, a targeted approach with individual cases and narratives is also strongly encouraged. Leveraging the strengths of initiative-based learning for sustainability transitions (Turnheim et al., 2015), more direct engagement with members of these initiatives, through surveys based on the attributes, case study analysis, and ethnographic and participatory methods would serve to strengthen and sharpen these findings while changing the voices, shifting the logics, opening new solution space and contributing to coherent yet transformative proposals for political and cultural change. The understanding of transition narratives and supporting organizations could benefit from a deeper exploration of the degree and importance of differences for core analytical concepts including especially social power,

social movements, and processes of sociotechnical change. While this research cannot offer explanatory power for the differences in transition narratives, it does suggest lines of inquiry, for example, exploring the influence of organizational history and type, and physical location. A variety of analytical, comparative, and reflective approaches and uses for narratives are available (Paschen and Ison, 2014; Jasanoff, 2015; Avelino et al., 2017; Becker and Naumann, 2017; Moezzi et al., 2017) as well as complementary approaches such as modeling and historical research on regional transitions, which could help to overcome limitations of initiative-based learning (Turnheim et al., 2015). Likewise, energy futures research based on these narratives may help build capacity among relevant social groups to understand and transform energy systems and inform democratic debate and technological development (Grunwald, 2011; Miller et al., 2015). To get at actual performance of initiatives and further contribute to transition studies involving social-ecological-technical systems, research could further develop the data base of attributes and specifically the set of outcomes expressed here, into workable indicators and measures of both social and ecological performance (McGinnis and Ostrom, 2014; Cherp et al., 2018).

Overall, this research contributes to practice and scholarship of sustainability transitions by clarifying and amplifying an emergent transition narrative and diverse yet complementary counter-narratives, examining and comparing transition narratives at the regional level, and initiating a data set for future research on regional social-ecological-technical systems to strengthen initiative-based practice and learning and support diverse and participatory analytical approaches.

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AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work, is fully responsible for its content, and approved its publication.

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SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fcomm.2018.00022/full#supplementary-material>

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