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"Sacrifice Zones" in the Green Energy Economy: Toward an Environmental Justice Framework

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Article abstract

The environmental justice movement validates the grassroots struggles of residents of places which Steve Lerner refers to as "sacrifice zones": low-income and racialized communities shouldering more than their fair share of environmental harms related to pollution, contamination, toxic waste, and heavy industry. On this account, disparities in wealth and power, often inscribed and re-inscribed through social processes of racialization, are understood to produce disparities in environmental burdens. Here, we attempt to understand how these dynamics are shifting in the green energy economy under settler colonial capitalism. We consider the possibility that the political economy of green energy contains its own sacrifice zones. Drawing on preliminary empirical research undertaken in southwestern Ontario in 2015, we document local resistance to renewable energy projects. Residents mounted campaigns against wind turbines based on suspected health effects and against solar farms based on arable land and food justice concerns, and in both cases, grounded their resistance in a generalized claim, which might be termed a "right to landscape". We conclude that this resistance, contrary to typical framings which dismiss it as NIMBYism, has resonances with broader claims about environmental justice and may signal larger structural shifts worth devoting scholarly attention to. In the end, however, we do not wholly accept the sacrifice zone characterization of this resistance either, as our analysis reveals it to be far more complex and ambiguous than such a framing allows. But we maintain that taking this resistance seriously, rather than treating it as merely obstructionist to a transition away from fossil capitalism, reveals a counter-hegemonic potential at its core. There are seeds in this resistance with the power to push back on the deepening of capitalist relations that would otherwise be ushered in by an uncritical embrace of "green energy" enthusiasm.

"Sacrifice Zones" in the Green Energy Economy: Toward an Environmental Justice Framework

*Dayna Nadine Scott and Adrian A. Smith**

The environmental justice movement validates the grassroots struggles of residents of places which Steve Lerner refers to as "sacrifice zones": low-income and racialized communities shouldering more than their fair share of environmental harms related to pollution, contamination, toxic waste, and heavy industry. On this account, disparities in wealth and power, often inscribed and re-inscribed through social processes of racialization, are understood to produce disparities in environmental burdens. Here, we attempt to understand how these dynamics are shifting in the green energy economy under settler colonial capitalism. We consider the possibility that the political economy of green energy contains its own sacrifice zones. Drawing on preliminary empirical research undertaken in southwestern Ontario in 2015, we document local resistance to renewable energy projects. Residents mounted campaigns against wind turbines based on suspected health effects and against solar farms based on arable land and food justice concerns, and in both cases, grounded their resistance in a generalized claim, which might be termed a "right to landscape". We conclude that this resistance, contrary to typical framings which dismiss it as NIMBYism, has resonances with broader claims about environmental justice and may signal larger structural shifts worth devoting scholarly attention to. In the end, however, we do not wholly accept the sacrifice zone characterization of this resistance either, as our analysis reveals it to be far more complex and ambiguous than such a framing allows. But we maintain that taking this resistance seriously, rather than treating it as merely obstructionist to a transition away from fossil capitalism, reveals a counter-hegemonic potential at its core. There are seeds in this resistance with the power to push back on the deepening of capitalist relations that would otherwise be ushered in by an uncritical embrace of "green energy" enthusiasm.

Le mouvement de justice environnementale confirme les luttes populaires des résidents des lieux que Steve Lerner qualifie de « zones sacrifiées » : communautés racisées à faibles revenus qui assument plus de leur juste part de préjudices environnementaux associés à la pollution, la contamination, les déchets toxiques et l'industrie lourde. À ce propos, les écarts de richesse et de pouvoir, souvent inscrits et réinscrits à travers les processus sociaux de racialisation, sont compris comme produisant des disparités au niveau des charges environnementales. Cet article tente de comprendre la façon dont ces dynamiques changent au sein de l'économie de l'énergie verte sous le capitalisme colonial. Nous considérons la possibilité que l'économie politique de l'énergie verte contienne ses propres zones sacrifiées. En nous basant sur une recherche empirique préliminaire menée dans le Sud-Ouest de l'Ontario en 2015, nous documentons l'opposition locale aux projets d'énergie renouvelable. Des résidents ont mené des campagnes contre des éoliennes, suspectant des effets néfastes sur la santé, et contre des panneaux solaires installés sur des terres arables, sur la base de préoccupations de justice alimentaire, fondant leur opposition dans les deux cas sur une revendication générale, qu'on pourrait définir comme un « droit au paysage ». Nous concluons que cette opposition, contrairement aux représentations typiques l'associant au phénomène de « pas dans ma cour », fait écho aux revendications plus larges de justice environnementale et peut signifier un changement structurel plus global valant la peine d'être étudié par les chercheurs. Toutefois, au final, nous n'acceptons non plus entièrement la caractérisation de « zone sacrifiée » employée par ce mouvement de résistance, puisque notre analyse révèle qu'elle est bien plus complexe et ambigüe que ne le permet une telle représentation. Mais nous maintenons que le fait de prendre ce mouvement de résistance au sérieux, plutôt que de le traiter comme s'opposant simplement à une transition vers des alternatives au capitalisme fossile, révèle en soi un potentiel antihégémonique. Cette opposition sème des graines ayant le pouvoir de repousser l'intensification des relations capitalistes qui seraient autrement établies par l'adhésion sans réserve de l'enthousiasme de « l'énergie verte ».

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Introduction

In this article, we examine the tensions and conflicts between movements for climate justice, energy justice, and food justice, as they are emerging on the ground in the global North by taking seriously resistance struggles against renewable energy projects. We begin from the premise that climate justice requires consideration not only of *whether* to tackle climate change by transitioning from a fossil fuel economy, but more profoundly of *how* to undertake that transition. In other words, there are, and will continue to be, distributional effects related to renewable energy generation. Critical environmental justice scholars need to attend to those effects as they emerge, with a focus on social dynamics, including race, class, gender, and settler colonialism.[1]

The environmental justice movement validates the grassroots struggles of residents of places which Steve Lerner refers to as "sacrifice zones": low-income and racialized communities shouldering more than their fair share of environmental harms related to pollution, contamination, toxic waste and heavy industry.[2] On this account, disparities in wealth and power, often inscribed and re-inscribed through social processes of racialization, are understood to produce disparities in environmental burdens. Here, we attempt to understand how these dynamics are shifting in the green energy economy. In doing so, we join scholars in political ecology who are asking provocative questions "that confound the general understanding of environmental justice" as following a standard formula based on grassroots, "bottom-up" community reactions by people of colour in low-income neighbourhoods.[3] We seek to better understand how critical environmental justice scholars should receive and theorize resistance that breaks this mold. Specifically, how should we react to movements of white, middle-class property owners articulating claims that resonate

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1 "Critical Environmental Justice Studies" is a term adopted by David Pellow and Robert Brulle to refer to emerging scholarship, which attempts to incorporate attention to "how multiple social categories of difference are entangled in the production of environmental injustice," among other critical interventions (see respectively David Naguib Pellow & Robert J Brulle, "Power, Justice, and the Environment: Toward Critical Environmental Justice Studies" in David Naguib Pellow & Robert J Brulle, eds, *Power, Justice, and the Environment: A Critical Appraisal of the Environmental Justice Movement* (Cambridge, Mass: MIT Press, 2005) 1; David N Pellow, "Toward a Critical Environmental Justice Studies: Black Lives Matter as an Environmental Justice Challenge" (2016) 13:2 Du Bois Rev 221 at 223).

2 See Steve Lerner, *Sacrifice Zones: The Front Lines of Toxic Chemical Exposure in the United States* (Cambridge, Mass: MIT Press, 2010) at 3.

3 Peter C Little, "Environmental Justice Discomfort and Disconnect in IBM's Tainted Birthplace: A Micropolitical Ecology Perspective" (2012) 23:3 Capital Nature Socialism 92 at 97. See also Julian Agyeman, *Sustainable Communities and the Challenge of Environmental Justice* (New York: New York University Press, 2005) at 1–2.

with the values and aims that have motivated the environmental justice movement? What do we mean by "Environmental Justice for All"?[4] Our study is based on preliminary empirical research employing qualitative methods undertaken in southwestern Ontario from April to August 2015. We conducted comprehensive key-informant interviews and participant observation with local residents and advocates to learn more about their concerns and resistance efforts in relation to renewable energy projects.[5] The data gathered through these methods were supplemented by a thorough review of the publicly available documentary record. We organized our examination of the contours of local resistance to green energy according to the way in which local residents and activists articulated those claims. For wind turbines, the concerns centered primarily on suspected adverse health effects; for solar farms, the concerns were expressed primarily in relation to the loss of arable land and food justice. In both cases, resistance was grounded in a generalized claim which might be termed a "right to landscape".

The question of NIMBYism[6] and environmental justice was very much a part of the energy landscape in southwestern Ontario in the years preceding our study. In an example that culminated in a high profile political controversy, the provincial government reversed a siting decision, which would have placed two new gas plants in the "backyards" of the largely

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4 See e.g. Environmental Justice Health Alliance for Chemical Policy Reform, *Environmental Justice for All*, online: <ej4all.org>.

5 We conducted six in-depth interviews with key informants identified first by local news media sources as local residents or activists with concerns about renewable energy projects, and subsequently through a snowball method. Two interviews were conducted with multiple informants present. In one case, we were invited to observe a meeting of several residents and activists. The interviews were approximately ninety minutes in length and were taped and transcribed. To preserve confidentiality, we anonymized the identities of the interview subjects, but specified the date and location of each interview. We also reviewed local media sources, as well as court and tribunal proceedings where available. We analyzed data through a process of analytic induction, identified three "themes" or types of claims, and selected quotes where illustrative of the points in discussion.

6 The term "NIMBYism" refers to "not-in-my-backyard" syndrome. Definitions vary, but in general "NIMBYism" is used to refer to refusals to accept local impacts from the kind of development that would otherwise be supported if it were located elsewhere (see e.g. Maarten Wolsink, "Invalid Theory Impedes Our Understanding: A Critique on the Persistence of the Language of NIMBY" (2006) 31:1 Transactions Institute British Geographers 85 at 86 [Wolsink, "NIMBY"]; Karena Shaw et al, "Conflicted or Constructive? Exploring Community Responses to New Energy Developments in Canada" (2015) 8 Energy Research & Social Science 41 at 42).

privileged people of Oakville, Ontario.[7] Katie Daubs, a journalist covering the well-organized resistance of the community quipped:

> They may have more flat screen televisions than the average person, but the citizens of Oakville are human beings. If you prick them, they will bleed. If you wrong them, they will seek revenge. If you try to build a power plant next to a residential zone, they will fly in Erin Brockovich.[8]

Most environmental justice struggles are narratives of solidarity, but occasionally, as in Peter Little's example of IBM's legacy of a toxic "vapor intrusion" in primarily white Endicott, New York, there are stories of "contestation, discomfort, [and] disconnect": contexts in which traditional environmental justice framings chafe.[9] In this study, we confront not only the relative privilege of the affected communities, but the fact that the industry they oppose—renewable energy—is itself promoted and state-sanctioned in "climate justice" terms. In other words, this is not merely a situation of relatively privileged residents fighting a proposed energy project that could easily be framed as an environmental burden in the classic "sacrifice zone" sense, but rather one in which the kind of projects being proposed (and opposed) are those meant to assist in the transition away from fossil fuels, momentum towards a destination in which gas plants are "not in anyone's backyard" (NIABY).[10]

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7 To further complicate the matter from an environmental justice perspective, in an effort to compensate the companies affected by the decision to cancel the plants, "the government gave each of them a new contract to build a plant somewhere else" (Adrian Morrow, "Ontario Liberals' Gas-Plants Scandal: Everything You Need to Know", *The Globe and Mail* (1 April 2015), online: <www.theglobeandmail.com>). One gas plant ended up in the small town of Napanee, Ontario and the other in Lambton County, near Sarnia, which—according to the World Health Organization—already bears the burden of the worst air quality in the country, due to the presence of Canada's "Chemical Valley" (see Tara Jeffrey, "Sarnia's Air Canada's Worst" *Sarnia Observer* (27 September 2011), online: <www.theobserver.ca>). In fact, the neighboring Aamjiwnaang First Nation recently withdrew a *Charter* challenge against the Ministry of Environment in Ontario, in which they claimed that the high air pollution burden affected them disproportionately as First Nations people (see *Lockridge v Ontario (Director, Ministry of the Environment)*, 2012 ONSC 2316, 350 DLR (4th) 720 (Div Ct)); Margot Venton et al, "Changing Course in Chemical Valley" (26 April 2016), *Ecojustice*, online: <www.ecojustice.ca>).

8 Katie Daubs, "Oakville Brings in Erin Brockovich to Fight Power Plant", *Toronto Star* (1 October 2010), online: <www.thestar.com>. Brockovich, of course, is the legendary environmental justice crusader depicted in the film *Erin Brockovich* directed by Steven Soderbergh (2003).

9 Little, *supra* note 3 at 95, 105.

10 The notion of "just sustainabilities" popularized by Julian Agyeman and his colleagues is an attempt to have scholars focus on not only the distribution of risk, but also the *prevention* of risks. This notion is sometimes captured by the "NIABY" acronym. This framework is a little more difficult to apply in the context of green energy projects, in-

I. Sacrifice Zones

In the sacrifice zones of the industrialized global North, we find the "downwinders": residents of pollution hot spots who live downwind and downstream of large industrial complexes of extraction, refining, and petrochemical production, and who suffer the environmental health effects that go with it. These downwinders are the people whose experiences and resistance has occupied the focus of much of environmental justice research to date.[11] In classic conceptions, residents of sacrifice zones are members of low-income and racialized communities shouldering more than their fair share of environmental burdens.[12] In one sense, then, the term "sacrifice zone" is "a trope used to describe disadvantaged communities and landscapes disproportionately contaminated and neglected in the name of capital accumulation."[13] More recently, scholars have started to more directly attribute the injustice of the lives of those residing in sacrifice zones to "fossil extractivism", and to brand their resistance as a fight for "climate justice".[14] Participants in the resistance movement include

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tended as an *alternative to* the damaging conventional fossil fuel sources of generating energy (see generally Julian Agyeman, Robert D Bullard & Bob Evans, eds, *Just Sustainabilities: Development in an Unequal World* (London: Earthscan, 2003)).

11 See e.g. Luke W Cole & Sheila R Foster, *From the Ground Up: Environmental Racism and the Rise of the Environmental Justice Movement* (New York: New York University Press, 2001) at 19–33; Phil Brown, "Popular Epidemiology and Toxic Waste Contamination: Lay and Professional Ways of Knowing" (1992) 33:3 J Health & Social Behavior 267 [Brown, "Ways of Knowing"]; Phil Brown, "Popular Epidemiology Revisited" (1997) 45:3 Current Sociology 137; Giovanna Di Chiro, "Environmental Justice from the Grassroots: Reflections on History, Gender and Expertise" in Daniel Faber, ed, *The Struggle for Ecological Democracy: Environmental Justice Movements in the United States* (New York: Guildford Press, 1998) at 104; Richard Hofrichter, ed, *Toxic Struggles: The Theory and Practice of Environmental Justice* (Philadelphia: New Society, 1993); Dara O'Rourke & Gregg P Macey, "Community Environmental Policing: Assessing New Strategies of Public Participation in Environmental Regulation" (2003) 22:3 J Policy Analysis & Management 383; Dayna Nadine Scott, "Confronting Chronic Pollution: A Socio-Legal Analysis of Risk and Precaution" (2008) 46:2 Osgoode Hall LJ 293; Peggy M Shepard et al, "Preface: Advancing Environmental Justice through Community-Based Participatory Research" (2002) 110 (supp 2) Environmental Health Perspectives 139.

12 For a seminal work on environmentalism and social justice, see generally Robert D Bullard, *Dumping in Dixie: Race, Class, and Environmental Quality* (Boulder, Colo: Westview Press, 1990).

13 Peter C Little, "On the Micropolitics and Edges of Survival in a Technocapital Sacrifice Zone", online: (2016) Capitalism Nature Socialism 1 at 2 <http://www.tandfonline.com/loi/rcns>.

14 See generally David Schlosberg & Lisette B Collins, "From Environmental to Climate Justice: Climate Change and the Discourse of Environmental Justice" (2014) 5:3 WIREs Climate Change 359; Agyeman, Bullard & Evans, *supra* note 10; Paul Mohai, David Pellow & J Timmons Roberts, "Environmental Justice" (2009) 34 Annual Rev

people like Vanessa, a young Anishinaabe woman who lives on the Aamjiwnaang First Nation reserve, downwind of Canada's Chemical Valley in southwestern Ontario, and has been photographed with a placard that reads, "This is what environmental racism looks like."[15] The movement also includes people like Carmen, a former "oilman" who took up ranching just north of Peace River, Alberta when the emissions from bitumen extraction pushed his father into illness and off the land.[16] In describing how the tar sands operators were drawing volatile hydrocarbons to the surface with a new process, and heating these hydrocarbons in open tanks so that they would waft down the valley, knocking people and cattle to their knees, Carmen stated, "we're being gassed out here and nobody cares."[17]

In this article, we turn our minds to the sacrifice zones created in the wake of green energy enthusiasm. In our conception, green energy enthusiasm constitutes not only the policy imperative to demonstrate progress in reducing greenhouse gas emissions, and thus a mandate to move away from fossil extractivism, but also the deliberate decisions taken by governmental authorities to remove the kinds of procedural protections and democratic controls that have become standard in relation to more conventional energy projects.[18] These decisions, we argue here, contribute to a striking resonance between the narratives of residents affected by green energy projects, most notably by wind turbines, and those in the sacrifice zones of fossil capitalism. Residents in the two types of sacrifice zone articulate a shared sense that they are bearing all of the risks and reaping few of the rewards.

Environment & Resources 405; David Schlosberg, "Reconceiving Environmental Justice: Global Movements and Political Theories" (2004) 13:3 Environmental Politics 517.

15 This narrative draws on fieldwork conducted for Dayna Nadine Scott's previous research (see Dayna Nadine Scott, "'We Are the Monitors Now': Experiential Knowledge, Transcorporeality and Environmental Justice" (2016) 25:3 Soc & Leg Stud 261 [Scott, "Monitors Now"]). See also Michael Toledano, "A Toxic Tour of Canada's Chemical Valley", *VICE* (23 March 2013), online: <www.vice.com>; Aamjiwnaang and Sarnia Against Pipeline (ASAP), *Aamjiwnaang Solidarity Against Chemical Valley*, online: <aamjiwnaangsolidarity.com>.

16 See also Scott, "Monitors Now", *supra* note 15; Micheal Toledano, "Albertans Are Abandoning Their Homes Due to Toxic Air", *VICE* (20 February 2014), online: <www.vice.com>.

17 Interview of Carmen (24 July 2014, Peace River, Alta). See also Scott, "Monitors Now", *supra* note 15 at 267.

18 Our point here is not to valorize conventional procedural protections and controls. Indeed, there are important criticisms directed at these (see e.g. Robert B Gibson, "In Full Retreat: The Canadian Government's New Environmental Assessment Law Undoes Decades of Progress" (2012) 30:3 Impact Assessment & Project Appraisal 179).

A. The Policy Imperatives Driving the Shift to Renewables

In this "post-Paris" world,[19] climate change is regarded as a top policy priority. Governments all the world over are striving to be seen as making measurable progress toward the goal of reducing greenhouse gas emissions. Accordingly, Canadian provinces have adopted a range of policy measures with the stated aim of combatting climate change. The most notable examples are British Columbia's well-established carbon tax,[20] Alberta's more recent carbon levy,[21] Ontario's *Green Energy Act, 2009*, establishing a feed-in tariff,[22] as well as the cap-and-trade regime for greenhouse gas emissions implemented in Quebec.[23] A federal mandate also exists for imposing a pan-Canadian carbon price.[24] All of these policy measures incorporate an accounting for greenhouse gas emissions intended to facilitate the transition away from fossil fuels. Massive new investments are occurring in renewables, such as solar and wind generation, as well as in hydro dam and nuclear refurbishment projects. In this latter respect, highly contested projects with serious adverse environmental effects, like British Columbia's Site C Dam, Newfoundland's Muskrat Falls, and the Deep Geological Repository for spent nuclear fuels near the Bruce Peninsula in Ontario, are now billed as "green energy" initiatives.[25]

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19 See *Paris Agreement*, 22 April 2016 (entered into force 4 November 2016), COP 21 Report, Addendum at 21–36, online: <http://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf>. The agreement provides that each signatory nation will designate their greenhouse gas reduction goals as nationally determined commitments. The signatory states are then expected to adopt corresponding domestic climate change policies. As an example, Canada's first nationally determined commitment pledges to reduce greenhouse gas emissions by thirty percent below 2005 levels by 2030 (see "Canada's INDC Submission to the UNFCCC", online: *United Nations Framework on Climate Change* <www4.unfccc.int/ndcregistry/PublishedDocuments/Canada%20First/INDC%20-%20Canada%20-%20English.pdf>).

20 See *Carbon Tax Act*, SBC 2008, c 40.

21 See *Climate Leadership Act*, SA 2016, c C-16.9.

22 See *Green Energy Act, 2009*, SO 2009, c 12, Schedule A (formerly the *Green Energy and Green Economy Act, 2009*). For background on the Feed-in Tariff Program which Ontario launched in conjunction with the *Green Energy Act, 2009*, see e.g. Independent Electricity System Operator, "Ontario's Feed-in Tariff Program Backgrounder" (16 December 2009), online: IESO <www.ieso.ca> [IESO, "Feed-in Tariff Program"].

23 See Ministère du développement durable, Environnement et Lutte contre les changements climatiques, "The Québec Cap and Trade System for Greenhouse Gas Emissions Allowances", online: MDDELCC <www.mddelcc.gouv.qc.ca/changements/carbone/Systeme-plafonnement-droits-GES-en.htm>.

24 See Shawn McCarthy, "Tory MPs Take Aim at Liberals' Carbon Price Plan", *The Globe and Mail* (19 September 2016), online: <www.theglobeandmail.com>.

25 See respectively Adrian Dix, "Christy Clark's Big Sales Job on Site C", *The Tyee* (12 October 2016), online: <www.thetyee.ca>; Garret Barry, "Ball Pitches Green N.L. Power to American Governors", *CBC News* (29 August 2016), online <www.cbc.ca>; On-

In the context of growing green energy enthusiasm, we consider the possibility that, as political economist Simon Dalby puts it, "those that manage to connect to this new political economy are distinguished from those dispossessed and displaced by its voracious appetite for resources and land."[26] In fact, as we argue elsewhere in the context of the Site C dam project, it is possible to conceive of the residents of these new sacrifice zones as climate refugees of a different kind.[27] In contrast to the images conjured by the alarmist mainstream discourse of rising sea levels causing brown and black bodies to wash up on "our" shores, these climate refugees are dispossessed and displaced not by climate change itself, nor by its devastating impacts, but rather by government actions to mitigate it. The category of "climate refugee" thus might include both those literally displaced and, in Rob Nixon's terms, those displaced "without moving"—those struck by "a loss that leaves communities stranded in a place stripped of the very characteristics that made it inhabitable" for them in the past.[28] In the case of the massive Site C dam, aiming to harness the power of the Peace River, the project receives green energy billing even though it will likely flood traplines and historic fishing spots on the traditional territory of the Treaty 8 First Nations.[29] The "new" climate refugees, then, would include marginalized peoples displaced within the global North by a rising tide of renewable energy enthusiasm inattentive to environmental justice.

In the next part, we detail the resistance to renewable energy projects which we observed on the ground in southwestern Ontario in 2015. The kinds of effects that are associated with the green energy projects we describe do not produce widespread dispossession or displacement, as the projects are largely small- and medium-scale wind and solar installations located in rural areas. Nor are the people mobilizing against the projects, in most cases, members of racialized or marginalized communities. In fact, they are mostly white, propertied citizens of rural areas. But it is

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tario Power Generation, "What Is the Deep Geologic Repository (DGR)?" (2016), online: OPG <opgdgr.com/>.

26 Simon Dalby, "Environmental Geopolitics in the Twenty-first Century" (2014) 39:1 Alternatives: Global, Local, Political 3 at 13.

27 See generally Dayna Nadine Scott & Adrian A Smith, "The Abstract Subject of the Climate Migrant: Displaced by the Rising Tides of the Green Energy Economy" (2017) 8:1 J Human Rights & Environment 30 at 31.

28 Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge, Mass: Harvard University Press, 2011) at 19.

29 See BC Hydro, "FAQ", *Site C Clean Energy Project*, online: <www.sitecproject.com/faq>; Sierra Club BC, Yellowstone to Yukon Conservation Initiative & Peace Valley Environment Association, "Site C Report" (2013), online: <sierraclub.bc.ca/wp-content/uploads/2015/08/Site-C-Report_low-res.pdf>.

possible to conceive of the people resisting these projects as residents of sacrifice zones in the conceptual sense, as they confront a state-imposed policy imperative that is justified in terms of the common good, but for which they believe their interests are being sacrificed. As mentioned, a critical aspect of green energy enthusiasm is the policy imperative to transition from fossil extractivism, paired with deliberate decisions by governmental authorities to forgo standard procedural protections, avenues for democratic deliberation, and local control.

A key aim of this exercise is to sharpen our analytical tools as environmental justice scholars within transitional terrain. The green energy economy ushers in an era which, in many cases, we have been agitating for. And yet, troubling signs suggest that not much has changed at a fundamental level, in terms of the underlying set of relations driving environmental injustice.[30] In this article, we consider whether those who resist green energy projects can be conceived as residents of sacrifice zones, taking their claims seriously and asking the hard questions raised by their objections to renewable energy projects, so as to sharpen our analytic tools for the coming shift.[31] We hope the exercise can advance understanding of how scholars should approach this resistance in a way that is attentive to the core commitments of environmental justice scholarship.

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30 This is not an entirely new phenomenon. In fact, sacrifice zones have been created across the global South. More recently, the "flexibility mechanisms" of the Kyoto Protocol treated carbon as a commodity (see *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, 11 December 1997, 2303 UNTS 162 arts 6, 12 (entered into force 16 February 2005)). "Joint implementation" tools established under the Kyoto Protocol, including the clean development mechanism, provided incentives for nations of the global North to "offset" their greenhouse gas emissions by investing in carbon sequestration and renewable energy projects in developing countries (with palm oil plantations being a key site of resistance) (see *ibid*, art 12). See also Emily Boyd, "Governing the Clean Development Mechanism: Global Rhetoric Versus Local Realities in Carbon Sequestration Projects" (2009) 41:10 Environment & Planning A 2380. For examples focusing on wind power specifically, see Shalanda H Baker, "Project Finance and Sustainable Development in the Global South" in Shawkat Alam et al, eds, *International Environmental Law and the Global South* (New York: Cambridge University Press, 2015) 338. As Baker makes clear, "going green" has been a neoliberal project all along. She describes how Mexico's 2008 *Renewable Energy Law* eased the way for private investment, which erased communal ownership over lands according to the *ejido* system. Large wind farm developers pressured local farmers to sign long-term leases and all of the power generated was sold exclusively to multinational cement producers, beverage companies, or Walmart (see *ibid* at 343).

31 In a similar vein, Beatriz Bustos, Mauricio Folchi and Maria Fragkou ask, "If the essence of injustice is disenfranchisement, if what generates environmental injustice is the decision-making system, we question whether a group that is not marginal, from a racial or economic point of view, can be the object of environmental injustice" (Beatriz Bustos, Mauricio Folchi & Maria Fragkou, "Coal Mining on Pastureland in Southern Chile: Challenging Recognition and Participation as Guarantees for Environmental Justice" (2016) 84 Geoforum 292 at 296).

II. Resistance to Green Energy Projects in Ontario

The emergence of Ontario's green energy economy began around 2005, and was cemented with the enactment of the *Green Energy Act, 2009*[32]. The purposes of the act include "fostering the growth of renewable energy projects, which use cleaner sources of energy," "removing barriers to and promoting opportunities for renewable energy projects," and "promoting a green economy."[33] The legislation streamlined the planning and environmental approval processes for renewable energy projects, establishing a separate environmental assessment category, and transferring decision-making authority from municipalities to the provincial government.[34] Renewable energy projects in Ontario, beginning with wind turbines and eventually including solar farms, though broadly supported in principle across the province, were met with fierce resistance by local communities. This resistance was immediately branded as NIMBYism in policy circles, and seen as stemming from parochial concerns about the location of a proposed development within a given neighbourhood or community. From the perspective of policymakers, given that political support for investments in renewable energy was widespread in the province, localized opposition was not principled, but rather narrow and selfish. Similarly, renewable energy advocates responded to the resistance with dismissal, treating it as irrational and self-interested, and seemed to steel themselves against it. They essentially approached such local resistance as a hurdle to surmount in the transition away from fossil fuels.[35]

In an important recent intervention, Karena Shaw and her collaborators offer a more robust account of the resistance struggles.[36] Relying upon a multi-investigator study of community responses to new energy developments in four Canadian provinces, they conclude that "resistance is heightened when communities are asked to relinquish certain landscape

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32 *Supra* note 22.

33 *Ibid*, Preamble.

34 See *ibid*, s 5. See also O Reg 15/10 (designations re Section 5 of the Act). The *Green Energy and Green Economy Act*, which resulted in the enactment of the *Green Energy Act, 2009*, was essentially omnibus legislation: its appendices modified sixteen other laws, including the *Planning Act* and the *Environmental Protection Act*, by creating exemptions to various requirements for projects designated as renewable energy projects (see David McRobert, Julian Tennent-Riddell & Chad Walker, "Ontario's Green Economy and Green Energy Act: Why a Well-Intentioned Law is Mired in Controversy and Opposed by Rural Communities" (2016) 7:2 Renewable Energy L & Policy Rev 91 at 91, n 1).

35 For a description of this general dynamic, see e.g. Derek Bell et al, "Re-visiting the 'Social Gap': Public Opinion and Relations of Power in the Local Politics of Wind Energy" (2013) 22:1 Environmental Politics 115.

36 See Shaw et al, *supra* note 6.

values or uses—to make sacrifices—in the absence of an institutional infrastructure that they are confident will protect their interests and values over the long term."[37] The study identifies distributive justice as a key concern of local communities: "communities were concerned that they would bear often intensive social and ecological impacts of energy projects, while the benefits—the financial gains and new energy produced—accrued elsewhere."[38] This focus on the "social patterning of costs and benefits", according to the authors, is tied primarily to the ownership structure of the proposed project.[39] As they state, "[t]he economic, governance, and regulatory arrangements underlying a project are important factors that create or undermine distributional justice, shaping who benefits financially, who bears the risks, and how risks are managed."[40]

In line with Shaw and her colleagues, we take the view that resistance to green energy projects should not be dismissed so easily. In fact, the anti-wind and anti-solar movements that developed in southwestern Ontario present some challenging questions for environmental justice praxis. We organize these questions according to the different ways in which the people we encountered on the ground articulated their concerns with new wind and solar projects. Accordingly, the presentation of claims by wind and solar farm resisters occurs in three ways: environmental health concerns are advanced to contest the implementation of wind turbines (Part II-A); concerns articulated in language consistent with food justice critiques are levelled against solar farms based on the loss of arable land and their interference with Indigenous food sovereignty (Part II-B); and resistance to both wind and solar farms is articulated in the language of a loss of landscape values (Part II-C). We consider each of these claims in turn with a view to considering how critical environmental justice scholars should *receive*, *conceive of*, and *theorize* this resistance.

A. How Should We Receive Environmental Health Concerns?

Much of the resistance to wind turbines in southwestern Ontario is organized around a claim of adverse health effects, controversially termed "wind turbine syndrome".[41] We agree with Mark Winfield that any consid-

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37 *Ibid* at 42.

38 *Ibid* at 46.

39 *Ibid* at 43.

40 *Ibid*.

41 For a collection of materials regarding the health effects of wind turbines, see Wind Concerns Ontario, "Wind Energy and your Health" (2017), online: <www.windconcernsontario.ca/health/>. See also Nina Pierpont, *Wind Turbine Syndrome: A Report on a Natural Experiment* (Santa Fe: K-Selected Books, 2009).

eration of the potential adverse health effects associated with wind turbines and other renewable energy projects should be undertaken in the context of the devastating and proven health effects associated with conventional energy production, especially in relation to coal-fired utilities; we also believe, however, that an environmental justice analysis requires consideration of further distributional justice considerations.[42]

There are at least two ways of conceiving of the distribution of benefits and burdens. There is a question of the distribution of the environmental burdens associated with energy production, chiefly air pollution, and its associated health costs,[43] as between communities affected by conventional energy generation, such as the coal-fired utilities phased out from 2002 to 2014,[44] and the communities affected by renewable energy projects intended to replace the electricity they generated. On a very general level, it is possible to characterize the communities impacted by emissions from coal-fired utilities as relatively marginalized: they include communities such as Sarnia-Lambton and the Aamjiwnaang First Nation, the working-class communities along Lake Erie, near the former Nanticoke generating station and U.S. Steel, Rainy River, and Thunder Bay.

Again, in very general terms, then, we are able to say that it was primarily lower-income marginalized communities who disproportionately bore the environmental health effects of coal-fired utilities, whereas it is largely white middle-class property-owners who face the burdens associated with renewable energy projects. Taking the underlying environmental justice impulse to work toward a more equitable distribution of environmental burdens across society, we may judge this to be a welcome shift

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42 Mark Winfield states:

> Recent analyses attribute over 300 premature deaths per year in Ontario to air pollution from coal-fired electricity (down from 660 per year when coal use was at its height a few years ago). The upstream impacts and risks of coal mining, ranging from the occupational risks of underground mining to the destruction and consumption of entire landscapes via open-pit or mountaintop removal mining, must be considered as well.
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> ... [T]he biophysical impacts of wind turbines, for which the evidence in the formal literature is decidedly thin despite two decades of large-scale deployments in the densely populated landscapes of Western Europe, look rather less serious (Mark Winfield, "Ontario's Green Energy Debate: Three Points to Consider" (10 March 2011), online: <marksw.blog.yorku.ca/blog/>).

43 See generally Ontario Medial Association, *The Illness Costs of Air Pollution in Ontario: A Summary of Finding* (Toronto: Ontario Medical Association, 2000).

44 For a discussion of lessons learned from Ontario's experience phasing out coal, see International Institute for Sustainable Development, "The End of Coal: Ontario's Coal Phase-Out" by Melissa Harris, Marisa Beck & Ivetta Gerasimchuk (Winnipeg: IISD, 2015), online: <www.iisd.org/>.

on a broad policy level.[45] Environmental justice scholars, however, are also concerned with a second way of conceiving the distributional question. Here, we consider the benefits and burdens associated with *individual projects*.[46] We ask: Who benefits and who pays? And here, the difficulties associated with the wind and solar projects resurface, raising compelling questions about the ownership structures of the renewable energy projects, their impacts on local communities, and the degree of control local people maintain in relation to their environments.

In this part, we focus on the narratives that emerged in our interviews on the topic of adverse health effects associated with wind turbines. We share the narratives of affected residents neither to validate nor to adjudicate these claims, but rather to interrogate the way in which critical scholars receive them. We aim to develop a robust analytical approach to the burdens associated with individual renewable energy projects, in line with environmental justice frameworks. In particular, we strive to confront the striking similarities between the accounts of residents living near wind turbines and the standard narrative that emerges from the type of sacrifice zones more familiar to environmental justice communities, namely the downwinders: those fighting petrochemical or other fossil fuel developments or extraction.

In the case of wind turbine syndrome, the residents' stories begin as most environmental justice stories do: with an exercise in popular epidemiology.[47] Affected residents whom we interviewed in Norfolk County stated that they experienced symptoms such as chronic headaches, sleeplessness, dizziness and loss of balance, tinnitus, vertigo, and migraines.[48] The residents uniformly described initially dealing with these symptoms themselves, then sharing their symptoms with family members, and finally deciding to reveal their symptoms to neighbours and the broader community. The process of sharing these experiences began with informal

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45 This is admittedly an oversimplification. As Iris Marion Young famously notes, "[I]t is a mistake to reduce social justice to distribution" (Iris Marion Young, *Justice and the Politics of Difference* (Princeton, NJ: Princeton University Press, 1990 at 15). See also David Schlosberg, *Defining Environmental Justice: Theories, Movements, and Nature* (Oxford: Oxford University Press, 2007) at 103–28.

46 For this reason, we often hear about "community benefits" being offered to increase public acceptance in facility-siting disputes. The trouble with renewable energy projects, of course, is that the benefits—in the form of climate change mitigation—accrue globally, while the impacts are concentrated locally (see Richard Cowell, Gill Bristow & Max Munday, "Acceptance, Acceptability and Environmental Justice: The Role of Community Benefits in Wind Energy Development" (2011) 54:4 J Environmental Planning & Management 539 at 539–40).

47 See generally Scott, "Monitors Now", *supra* note 15.

48 See Interviewees no 4 (28 July 2015), no 2 (27 July 2015), no 1 (27 July 2015).

conversations with neighbours, and progressed to a comparing of symptoms and an attempt to construct a causal narrative based on considerations such as distance from a turbine, wind direction, geography, and materials used in house construction.[49]

For example, when asked how she came to believe that the turbines were affecting her health, one resident stated:

> It was when all eighteen turbines ... started turning at the same time. I remember because it happened to be my son's birthday ... and over the next week or so ... my head felt like a block of concrete, my ears were stuffed, and right now, I [can]not hear everything you're saying because my ears are stuffed. And I know that the wind has been from the southeast and those are days when I'm grateful because when the winds [come] from the southeast or the south or even the southwest, the turbulence all goes to the community on the north side of the turbines. So for a little moment, or half a day or so, I feel just a little bit better. When the winds are from the west and you get all the turbines [going], it's really very, very debilitating.[50]

When the resident was asked how long it took her to decide that the health effects were related to the turbines, she replied,

> No more than a couple of weeks. I went to my neighbour ... and ... when the wind was from the northwest, he used to get pain in the back of his neck, and we started comparing notes, and then we realized that when the wind turbines weren't turning, all of these symptoms disappeared.[51]

When asked if she was recording her symptoms, the resident replied, "I did do a little bit of a diary that I started in March 2010."[52] Relating how she was forced to rent an apartment away from her home to escape the turbines, she continued:

> So that was an experiment that [X]'s mom and one of our other neighbour's, [Y], who lived down the road a little further [did]. We rented an apartment in [Z], which is forty-five kilometres from here ... so I was doing a crossover-type of experiment—I knew what I was doing, but I wasn't going to sort of cave in and be a recorder of my own demise.[53]

Another resident explained:

> Eventually, you start to gain some familiarity with the sound and maybe your ears are tuning in to a lower frequency sound and you're

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49 See *ibid.*

50 Interviewee no 1, *supra* note 48.

51 *Ibid.*

52 *Ibid.*

53 *Ibid.*

> saying, "[are] my bones vibrating, what's going on here?" And then at some point, it's like ... it's very obvious that the wind turbines are the cause. And when I started to feel resonance in my body ... some nights are much worse than others ... I have to get up to go to work in the morning and it's [one in the morning] and I can't sleep and my body's vibrating and I can hear them. It's an emergency, a crisis ... [and] we don't have six years to argue this out as we figure [it] out.[54]

Yet another resident reported:

> My husband's tinnitus has gotten much worse; he has it a lot more often and a lot more severe, too. So he wakes up in the middle of the night and can't get back to sleep, and he's up and down and then it rings throughout the day lots of times too. It always seems to be when the wind is up and the wind turbines are going faster.[55]

When asked why they think the turbines are not affecting everyone in the community, one resident replied: "Number one, I feel like there may be a lot of denial."[56] Other community members indicated that they thought families who had signed contracts with the wind companies were not in a position to admit that they were sick, due to confidentiality clauses.

As residents struggled to make sense of these symptoms, they described multiple neighbours along the same road experiencing vertigo for the first time.[57] They collected stories of others across the county experiencing heart palpitations, nausea, migraines, trouble sleeping, and "feeling vibrations". Multiple residents told us that the ringing in their ears disappeared when they left their homes and communities, and returned when they came back. One resident recounted:

> My youngest daughter ... we had to keep her out of school, something was wrong with her, she felt dizzy and faint; her legs and arms were numb, she said she had a bad headache, was nauseated. Later that night, and right through the next day, I heard and felt the noise and vibrations from the wind turbines more prominently than usual.[58]

When compared with the serious environmental health effects which often arise from living in the vicinity of a petrochemical complex or downstream of a major oil or gas development—such as cancers, reproductive and developmental disorders, and chronic respiratory illness—the health complaints of residents in southwestern Ontario may seem relatively minor. It is clear that adverse health effects associated with wind turbines

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54 Interviewee no 4, *supra* note 48.

55 Interviewee no 2, *supra* note 48.

56 Interviewee no 1, *supra* note 48.

57 See Interviewee no 2, *supra* note 48.

58 Interviewee no 4, *supra* note 48.

are not uniformly experienced. For the residents who experience them, however, they are described as completely "life-changing" and "debilitating", disrupting work, family life, and relationships.[59] Further, while they may differ slightly in kind, the pattern by which they emerge follows a formula that environmental justice scholars will find familiar.[60]

Consider the early grassroots struggles that are largely credited for giving rise to the environmental justice movement in the United States: the clusters of illness which were finally tied to the underground plumes of toxic contamination in Love Canal, New York, in the early 1970s, were first brought to light by Lois Gibbs and the other now-celebrated "housewives" who walked up and down streets to gather data like this.[61] The largely Black community of Warren County, North Carolina took up these methods in their bid to demonstrate the link between their children's illnesses and the toxic waste dumped along their roadways in the early 1980s.[62] The pattern repeats in Canada: along Fredrick Street in the Sydney Tar Ponds on Cape Breton Island, Nova Scotia,[63] on the Aamjiwnaang First Nation reserve adjacent to Canada's Chemical Valley,[64] and on Township Road 842, downwind of the Peace River oil sands.[65] As Jason Corburn demonstrates in *Street Science*, a common element to these stories is that evidence collected through exercises in popular epidemiology is initially discounted and rejected by formal scientific and legal authorities.

In many of these struggles, however, the popular account is subsequently validated. The point is that environmental justice activists are quite familiar with legal and regulatory decision-making processes discounting "evidence that is more informal, experiential, tacit, and explicitly value laden."[66] In fact, the thrust of much environmental justice scholar-

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59 *Ibid*; Interviewee no 1, *supra* note 48.

60 Steve Lerner describes the process through which residents become activists in his book, *Sacrifice Zones: The Front Lines of Toxic Chemical Exposure in the United States* (see Lerner, *supra* note 2 at 2–6).

61 See Jason Corburn, *Street Science: Community Knowledge and Environmental Health Justice* (Cambridge, Mass: MIT Press, 2005) at 34–35; Amy M Hay, "Recipe for Disaster: Motherhood and Citizenship at Love Canal" (2009) 21:1 J Women's History 111 at 114–26.

62 See Phil Brown & Edwin J Mikkelsen, *No Safe Place : Toxic Waste, Leukemia, and Community Action* (Berkeley: University of California Press, 1990) at 71.

63 See Maude Barlow & Elizabeth May, *Frederick Street: Life and Death on Canada's Love Canal* (Toronto: HarperCollins, 2000) at 114–46.

64 See Scott, "Monitors Now", *supra* note 15 at 265–67; Sarah Marie Wiebe, *Everyday Exposure: Indigenous Mobilization and Environmental Justice in Canada's Chemical Valley* (Vancouver: UBC Press, 2016) at 97–124.

65 See Scott, "Monitors Now", *supra* note 15 at 267–69, 277–78.

66 Corburn, *supra* note 61 at 27.

ship has been to explicitly counter this dynamic, recognizing that it is fuelled by the tactics of "manufactured uncertainty" employed by "big tobacco", "big chem", and "big oil" over the years, largely undertaken with the aim of delaying regulatory restrictions on their products.[67]

In contrast, Luke Cole and Sheila Foster's ground-breaking work on the environmental justice movement, *From the Ground Up*, forcefully argues that affected residents must "speak for themselves", their expertise must be valued, and they must be believed.[68] The notion of "popular epidemiology" is based on the idea of these residents talking to their neighbours, comparing symptoms, and compiling notes.[69] When individuals come together to challenge a development in their community, typically put forward by outsiders—in this case, by renewable energy multinationals perceived to be trying to buy off landowners one by one with secretive contracts preventing them from speaking out[70]—a key question for critical environmental justice scholars must be: How should we receive these claims?

Should our attitude towards the claims be based primarily on the characteristics of the residents complaining (i.e., asking whether they are marginalized, racialized, or oppressed). Or does the critique, which we have developed through our analyses of how data, power, and authority are mutually constituted in environmental justice struggles, instead command us to approach *all* "truth claims" differently, regardless of whether the mobilizing residents are (as they are in this case) largely white, middle-class property-owners? Does this critique require us to see those claims as "situated and contingent",[71] coming from a community of knowers with shared beliefs and experiences, and as having a basic validity, even though they are not grounded in conventional scientific knowledge?

As is perhaps not surprising, tribunals in Ontario and state institutions across Canada have not received the claims in this way. Instead,

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67 See generally David Michaels, "Manufactured Uncertainty: Protecting Public Health in the Age of Contested Science and Product Defense" (2006) 1076 Annals NY Academy Sciences 149.

68 Luke W Cole & Sheila R Foster, *From the Ground Up: Environmental Racism and the Rise of the Environmental Justice Movement* (New York: New York University Press, 2001) at 106.

69 See Brown, "Ways of Knowing", *supra* note 11 at 267–68. See also Scott, "Monitors Now", *supra* note 15 at 262–63, 265–66.

70 See Interviewee no 1, *supra* note 48. See also Dave Seglins, "Ont. Couple Seeks Injunction to Stop Wind-Farm Expansion", *CBC News* (11 September 2012), online: <www.cbc.ca>.

71 See Scott, "Monitors Now", *supra* note 15 at 262–63, 278.

they have dismissed the adverse health claims framed in terms of wind turbine syndrome on the basis of a lack of credible evidence.[72] In a recent report, Ontario's Chief Medical Officer of Health concluded, "[T]he scientific evidence available to date does not demonstrate a direct causal link between wind turbine noise and adverse health effects."[73] Ontario's Environmental Review Tribunal heard a series of cases related to health concerns associated with wind turbines between about 2011 and 2015, and uniformly rejected claims of adverse health effects.[74] In *Drennan v. Ontario (Ministry of the Environment)* (the "K2 wind decision"), the tribunal stated:

> [T]he Appellants did not provide *professional medical opinions* to diagnose the health complaints from the post-turbine witnesses and to *establish a causal link* between those complaints and wind turbines noise or noise from transformers. As importantly, the Tribunal has the benefit of the testimony of Drs. Mundt, McCunney and Moore that reinforce previous Tribunal findings that the post-turbine witnesses need to be properly diagnosed by a medical professional and that there is no reliable evidence to demonstrate that the Project will cause serious physical or any other serious harm.[75]

Many of those cases closely followed an authoritative study on the health effects of wind turbine exposure from Health Canada released in 2014.[76] This study found no evidence to support a link between exposure to wind turbine noise and any of the self-reported illnesses (e.g., dizziness, tinnitus, and migraines) and chronic conditions (e.g., heart disease, high blood pressure, and diabetes) and no association between multiple measures of stress (e.g., hair cortisol, blood pressure, heart rate, and disrupted sleep) and exposure to wind turbine noise.[77] On the topic of "an-

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[72] The appeal of the renewable energy approvals issued for three wind turbine projects in Ontario—the St. Columban wind project, the K2 wind project, and the Armow wind project—were heard together at the Environmental Review Tribunal, and all three appeals were dismissed (see *Dixon v Director, Ministry of the Environment* (2014), 85 CELR (3d) 153) (Ont ERT)). The Environmental Review Tribunal's decision was affirmed in *Dixon v Director, Ministry of the Environment*, 2014 ONSC 7404 (Div Ct), 92 CELR (3d) 290, with additional reasons reported at *Dixon v Ontario (Director, Ministry of the Environment)*, 2015 ONSC 1358 (Div Ct), 92 CELR (3d) 355.

[73] Ontario, Chief Medical Officer of Health, "The Potential Health Impact of Wind Turbines" (Toronto: Queen's Printer for Ontario, 2010) at 3.

[74] See *supra*, note 72.

[75] *Drennan v Ontario (Ministry of the Environment)* (2014), 85 CELR (3d) 57 at para 213, 2014 CarswellOnt 1695 (WL Can) (Ont ERT) [emphasis added].

[76] See Health Canada, Environmental and Workplace Health, "Wind Turbine Noise and Health Study: Summary of Results" (Ottawa: Health Canada, 2014), online: <www.hc-sc.gc.ca/>.

[77] See *ibid*.

noyance levels", perhaps unsurprisingly, statistically significant relationships were found between increasing wind turbine noise and the prevalence of reporting high annoyance.[78] These associations were found with annoyance due to noise, vibrations, blinking lights, shadows, and visual impacts from wind turbines. Interestingly, however, annoyance was said to be significantly lower among the 110 participants who received personal direct or indirect benefits of having wind turbines in the area.[79]

All of this leads some critics to argue that Ontario simply made mistakes in its implementation of the *Green Energy Act, 2009*. As an advocate for Wind Concerns Ontario stated: "Wind power can work ... but plunking [turbines] down, right next to communities and next to homes and schools, is not the right idea."[80] For these people, siting was the crucial thing that went wrong. For others, the failure to reimagine ownership structures and obtain community buy-in was the problem.[81] This is where the "annoyance level" findings are interesting. On this kind of environmental justice framing of distributive justice, it is that the risks and costs are falling on residents and the benefits are all accruing somewhere else that is crucial. Think of the anti-pipeline slogan, "All Risk, No Reward."[82] When residents sense this, they fight it—and the fact that the project will produce energy that is 'renewable' seems to do little to mitigate these sentiments.

B. How Should We Handle the Competing Claims to Land?

A second theme was observed primarily in the resistance to solar farms. How should we adjudicate claims to land as between those who want to preserve it for food production (broadly construed) and those who would use it for solar power generation? From an environmental justice framework, we are familiar with conflicts over land and space as they typically play out between industrial and residential uses, or even sometimes between "green space" and "industrial development". We have less experi-

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78 See *ibid*.

79 See *ibid*.

80 Chip Martin, "This Blows: Growing List of Ontario Municipalities Declare 'Unwilling Hosts' to Wind Turbines", *The London Free Press* (16 August 2013), online: <www.lfpress.com>.

81 See Interviewee no 6 (29 July 2015, Haldimand County). See also Stewart Fast & Warren Mabee, "Place-making and Trust-building: The Influence of Policy on Host Community Responses to Wind Farms" (2015) 81 Energy Policy 27; Chad Walker & Jamie Baxter, "'It's Easy to Throw Rocks at a Corporation': Wind Energy Development and Distributive Justice in Canada", online: (2017) J Environmental Policy & Planning 1 <dx.doi.org/10.1080/1523908X.2016.1267614>.

82 See All Risk No Rewards, *All Risk No Reward*, online: <allrisknoreward.com>.

ence and analysis addressing competing demands framed in "justice" terms.

Communities across Ontario experienced a "solar building boom" in the summer of 2014.[83] Credit has been directed at supportive provincial policies, in particular the Feed-In Tariff Program launched in conjunction with the *Green Energy Act, 2009*, which offered high, fixed prices for electricity generated from large-scale solar projects and other renewable sources.[84] Although aspects of the program have now been discontinued, it produced more than seventy "huge, ground-level projects, sometimes covering vast tracts of land."[85] Proponents rave about the uncontroversial nature of solar generation. According to a small-town mayor, "Solar does [not] present the same kind of issues as wind."[86] And as an industry consultant claims, "It sits there, it's quiet, and it is not very visible because it is flat on the ground."[87] But other commentators concede that there are "legitimate concerns from residents who live near planned solar farms," pointing to "the hum from inverters, the glare from panels, and worries over water, wildlife and the loss of farmland."[88] These concerns are widely regarded as "remedied" through more recent interventions, including larger setbacks of panels from roadways, waterways, property lines, and the like, as well as the provincial government's prohibition of the installation of solar farms on high-quality farm lands.[89]

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83 Richard Blackwell, "Solar Power Surging to Forefront of Canadian Energy", *The Globe and Mail* (26 July 2014), online: <www.theglobeandmail.com> [Blackwell, "Solar Power"]. See also Richard Blackwell, "Going Green: Does Ontario's Energy Shift Have the Power to Sustain Itself?", *The Globe and Mail* (10 July 2015), online: <www.globeandmail.com>.

84 See *Green Energy Act, 2009*, *supra* note 22, Preamble, ss 5, 11. See also IESO, "Feed-in Tariff Program", *supra* note 22.

85 While the cancellation of the Large Renewable Procurement program was announced in September 2016, the FIT and microFIT programs remain in place (see Ontario, Ministry of Energy, News Release, "Ontario Suspends Large Renewable Energy Procurement" (27 September 2016), online: Government of Ontario Newsroom <news.ontario.ca> [Ontario, "Ontario Suspends Procurement"]). See also Independent Electricity Service Operator, "Feed-in Tariff Program" (19 December 2016), online: IESO <www.ieso.ca/sector-participants/feed-in-tariff-program/news-and-updates/fit-5-application-summary>).

86 Blackwell, "Solar Power", *supra* note 83.

87 *Ibid*.

88 *Ibid*.

89 *Ibid*. But see Konrad Yakabuski, "The Darker Side of Solar Power", Editorial, *The Globe and Mail* (27 May 2015), online: <www.theglobeandmail.com> ("[t]he industry doesn't talk much, or at all, about the downsides of manufacturing solar panels or where all these panels will end up when they conk out. Think of how much toxic waste is generated by consumer electronics and you get a small inkling of what a world lit

In exploring the more trenchant criticisms of large-scale solar projects in our qualitative research, we found that resistance to solar farms in southwestern Ontario was often grounded in concerns about the use of arable lands for purposes other than growing food and serving environmental and ecological functions. Certain articulations of these concerns appear consistent with "food justice" activism as it has been mounted by farmers and growers. In an interview, a former farmer articulated "a philosophical objection to using solar generation on crop land."[90] While acknowledging that "wind has been very controversial in the County," he noted that "[t]hrough our Federation of Agriculture, we have consistently objected to using farm land for solar panels." Going on to state that he could not "see any reason why they would need to bulldoze [farm fields] into a sterile expanse of soil," he added:

> [M]arginal land is not useless land. Even if it's marginal land, ... it performs a very useful environmental function. There's no such thing as useless land. ... We must be very concerned about what we do ... in terms of changing the landscape from a natural environment, whether it's for farming purposes or environmental reasons, ya know. Both are legitimate led uses to be sure.[91]

As another resident commented,

> [W]hen you bring a solar installation into a rural area, you basically destroy that soil. You destroy it, because they will dig down, they will dig up all the topsoil, they will put three feet of heavy gauge gravel, and you just can't re-build that. ... They were offering ridiculous prices to take advantage of some of these wide open spaces with southern exposure like we have here, and I think the [Ontario Ministry of Agriculture, Food and Rural Affairs] put the kibosh on that pretty quick. They said, "Oh no no. You can't come down here and destroy class I, II, and III soils. You'll have to make a case that the land is good for nothing, it's totally marginal. Even then, it's discouraged because the [Ministry of Natural Resources and Forestry] and conservation groups, environmental groups, would like to see that kind of land returned to nature, wildlife, pollinator habitat, [and] reforestation.[92]

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with solar power, and the batteries needed to store their energy, might look like"). For a response, see Merran Smith, "Solar Power Isn't Perfect, But It's the Best We've Got", *The Huffington Post Canada* (31 May 2015), online: <www.huffingtonpost.ca> ("[s]omething has to keep the lights on, and there's simply no such thing as a clean, reliable, cost-effective—and 100-percent pollution-free—electricity source. It doesn't exist. This rule applies whether you're considering fossil fuels, nuclear, or renewable energy. Like many things in this world, power generation is a game of finding the best option, warts and all").

90 Interviewee no 6, *supra* note 81.

91 *Ibid*.

92 Interviewee no 5 (28 July 2015, Norfolk County).

In contrast to wind farms, which "take very little land out of production," the retired farmer decried the use of arable land for solar generation and the stronger protection afforded to "wood lands" over agricultural lands. In his words,

> If we look at the development of solar farms in [the] county, wood lots are protected. Farm land is on a lower scale than wood lands [laughs]. That shows you where our priorities are as a society. We take our food for granted, but we protect our [laughs] environment before we protect our food producing resources.[93]

These arguments have resonances with the *Farmers Feed Cities* campaign, another prominent example of farmer-land food justice. Launched in 2005, and ultimately stewarded by the Grain Farmers of Ontario, the lobbying front and consumer awareness campaign sought to build support for the plight of farmers across the province. In the form of lawn signs, bumper stickers and window decals, and backed by farmers' political protests and convergences, the campaign portrayed farmers in heroic fashion to urban dwellers in a period of heightened interest in the development of "local" and "sustainable" food initiatives. Yet, the campaign reinforced certain misconceptions about the shifting nature of farming practices. Those misconceptions often invoke, as one resident put it, the

> classic Old-MacDonald family farm, where there's a diversity of things done on the farm. There's a lot of people who have this perception that that's the way agriculture is still done in southern Ontario, and it's not. I mean, agriculture now is very much done on an industrial scale, in a sophisticated fashion.[94]

Indeed, the Farmers Feed Cities campaign glossed over many issues of contemporary importance in southwestern Ontario. The campaign said little about agro-food consolidation and integration into corporate supply chains (indeed, in a certain respect, it celebrated this); the injustices of hunger and starvation in cities;[95] the gendered nature of food provisioning

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93 *Ibid*. In questioning Ontario's green energy policy, the farmer argued that "[if] people were serious about solar energy, I think our government would dictate or refuse to issue a building permit unless there was a solar component on the roof. But don't look to farm land and cover it with solar panels." "[S]olar is great provided it is integrated within the existing urban infrastructure" (*ibid*).

94 *Ibid*.

95 On global restructuring of the agro-food industry, see generally Philip McMichael, ed, *The Global Restructuring of Agro-Food Systems* (Ithaca, NY: Cornell University Press, 1994). Food sovereignty and Via Campesina have emerged as an alternative to corporate consolidation (see Annette Aurélie Desmarais, *La Vía Campesina: Globalization and the Power of Peasants* (Halifax: Fernwood, 2007)). See also Nik Heynen, "Justice of Eating in the City: The Political Ecology of Urban Hunger" in Nik Heynen, Marie Kaika & Erik Swyngedouw, eds, *In the Nature of Cities: Urban Political Ecology and the Poli-*

and social reproduction;[96] white privilege and racism in agro-food production, provisioning, and planning;[97] the "battle fields" of migrant agricultural labour and growers;[98] wider ecological injustices, whether caused by fossil fuel dependency in inputs and greenhouse gas outputs, monocultural crop production, soil erosion, aquifer depletion, or a combination of these; or food sovereignty at the intersections of settler colonialism and capitalist imperialism.[99] As these considerations suggest, alternatives to narrowly conceived farmer-centred conceptions of food justice exist.

As an example, in our research we also encountered resistance to renewable energy projects articulated in the language of Indigenous rights and food sovereignty. In particular, members of the Six Nations of the Grand River expressed concerns surrounding the possible violation of their hunting rights caused by the disruption of wildlife habitat and migration routes, which would result from plans to build a vast solar installation on their traditional territory.[100] "No one on this tribunal will be liv-

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tics of Urban Metabolism (London: Routledge, 2006) 129; Nik Heynen, Hilda E Kurtz & Amy Trauger, "Food Justice, Hunger and the City" (2012) 6:5 Geography Compass 304.

96 See Susan Braedley & Meg Luxton, "Competing Philosophies: Neoliberalism and Challenges of Everyday Life" in Susan Braedley & Meg Luxton, eds, *Neoliberalism and Everyday Life* (Montreal: McGill-Queen's University Press, 2010) 3 at 14. On social reproduction more broadly, see generally Kate Bezanson & Meg Luxton, eds, *Social Reproduction: Feminist Political Economy Challenges Neo-Liberalism* (Montreal: McGill-Queen's University Press, 2006).

97 See Alfonso Morales, "Growing Food *and* Justice: Dismantling Racism through Sustainable Food Systems" in Alison Hope Alkon & Julian Agyeman, eds, *Cultivating Food Justice: Race, Class, and Sustainability* (Cambridge, Mass: MIT Press, 2011) 149; Rachel Slocum, "Anti-Racist Practice and the Work of Community Food Organizations" (2006) 38:2 Antipode 327; Julie Guthman, "'If They Only Knew': The Unbearable Whiteness of Alternative Food" in Alkon & Agyeman, *supra* note 97, 263; Rachel Slocum, "Whiteness, Space and Alternative Food Practice" (2007) 38:3 Geoforum 520.

98 See Don Mitchell, "Battle/Fields: Braceros, Agribusiness, and the Violent Reproduction of the California Agricultural Landscape During World War II" (2010) 36:2 J Historical Geography 143. See also "Migrant Farm Workers: Fields of Tears", *The Economist* (16 December 2010), online: <www.economist.com>.

99 See Annette Aurélie Desmarais & Hannah Wittman, "Farmers, Foodies and First Nations: Getting to Food Sovereignty in Canada" (2014) 41:6 J Peasant Studies 1153; Eric Holt-Giménez, "Food Security, Food Justice, or Food Sovereignty? Crises, Food Movements, and Regime Change" in Alkon & Agyeman, *supra* note 97, 309.

100 The Six Nations Elected Council entered into a partnership with Samsung Renewables for the construction of the Grand Renewable Energy Park in Ontario (see John Spears, "Six Nations Reach Energy Deal with Samsung", *Toronto Star* (1 June 2012), online: <www.thestar.com>). For a description of the project, see Stantec Consulting Ltd, *Grand Renewable Energy Park: Project Description Report* (Guelf: Stantec, 2011), online: <www.samsungrenewableenergy.ca>. For other projects planned in the area, see Michael-Allan Marion, "Six Nations Finalizes Wind Energy Projects", *Brantford Expositor* (9 April 2014), online: <www.brantfordexpositor.ca>.

ing on this land. No one will know the effects until 40 years from now," stated a Six Nations band member who gave evidence at an Environmental Review Tribunal hearing on the Samsung Grand Renewable Energy Park.[101] Members of the band engaged in resistance actions such as putting up "no trespassing" signs on the land and uprooting surveying stakes installed by the renewable energy giant, Samsung. Another resident explained: "I have no respect for Samsung. They have no respect for the wildlife. All they care about is the money. ... It's pretty sad that we would give up our children's rights for a dollar."[102]

The concerns expressed to us by the Indigenous community members we interviewed emphasized that Six Nations people live and rely heavily on the land.[103] The presence of the wildlife on the territory is critical to the continuation of their traditional practices, to their ability to transfer those skills and values to the next generations, and to their own food needs.[104] Residents indicated that they were trying to "bring that attention to the connection to the land, the medicines," so that they could fulfill responsibilities to "take care of those animals that we are relatives of."[105] But these community members were frustrated that in the tribunal process, they were unable to meet the demands for certain types of "knowledge" and "expertise" that would be valued by the decision makers. As one resident put it,

> We were supposed to be able to put forward the effects that these windmills and solar panels would have on the environment. ... [T]he thing that we found out is that we don't have the education to back that up; however, we do have a cultural component and heritage and ceremonies. ... So we have a different understanding from what they have. Our understanding has more of a spiritual aspect. The downside is we weren't allowed to use our wampums, we weren't allowed to use our treaties, to use our laws. ... [I]t was all based on what the negative effects would be if those [projects] went up. And they're not up and they're still fairly new, so how can anybody really prove that?[106]

Critical scholars have built on the close affinities between food justice and environmental justice to posit nuanced accounts that can incorporate

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101 Jennifer Vo, "I Have No Respect for Samsung. They Have No Respect for the Wildlife. All They Care About Is the Money" (11 November 2012), *Ontario Wind Resistance*, online: <ontario-wind-resistance.org>.

102 *Ibid*.

103 See Interviewee no 8 (28 July 2015, Six Nations); Interviewee no 9 (9 August 2014, Six Nations).

104 See Interviewee no 8, *supr*a note 103.

105 *Ibid*.

106 *Ibid*.

these tensions.[107] Carmen Gonzalez adopts a "tripartite definition of food justice consisting of ecologically sustainable food production, equitable access to food and food-producing resources, and democratic local and national control over food and agricultural policy."[108] Food justice in this conception aims to secure "the right of communities to grow, sell, and consume healthy, nutritious, affordable, and culturally appropriate food produced through ecologically sustainable methods, and their right to democratically determine their own food and agriculture policies."[109] The reference to Indigenous law made by the Six Nations' resident above highlights its ongoing subordination to the colonial laws applied by courts and tribunals, and thus underscores the complexity in notions of food justice which take the elements of culture and self-determination seriously. The articulation of resistance to solar farms in southwestern Ontario thus mobilizes concerns which expose valid questions and serious tensions between environmental justice, energy justice, and food justice, broadly conceived. To dismiss such concerns as NIMBYism is to dodge the difficult questions which critical scholars will need to confront in analyzing the resistance to the transition from fossil fuels.

C. How Should We Think about the "Right to Landscape"?

Finally, and perhaps most profoundly, we encountered green energy resistance framed in terms of a right to the landscape. This third type of claim involves the defence of landscape values as residents articulate a connection to land and an affection for a landscape seen as "theirs by right". Whereas the charge of NIMBYism is commonly (and perhaps most easily) launched when opposition to renewable energy projects is based on

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[107] See Alison Hope Alkon & Julian Agyeman, "Introduction: The Food Movement as Polyculture" in Alkon & Agyeman, *supra* note 97, 1 (noting that contemporary food justice has its origins in the environmental justice movement). See also Teresa M Mares & Devon G Peña, "Environmental and Food Justice: Toward Local, Slow, and Deep Food Systems" in Alkon & Agyeman, *supra* note 99, 197; Patricia Allen, "Mining for Justice in the Food System: Perceptions, Practices, and Possibilities" (2008) 25:2 Agriculture & Human Values 157; Joshua Sbicca, "Growing Food Justice by Planting an Anti-Oppression Foundation: Opportunities and Obstacles for a Budding Social Movement" (2012) 29:4 Agriculture & Human Values 455; Alison Hope Alkon & Kari Marie Norgaard, "Breaking the Food Chains: An Investigation of Food Justice Activism" (2009) 79:3 Sociological Inquiry 289.

[108] Carmen G Gonzalez, "Food Justice: An Environmental Justice Critique of the Global Food System" in Shawkat Alam et al, eds, *International Environmental Law and the Global South* (New York: Cambridge University Press, 2015) 401 at 402.

[109] *Ibid* at 404 [footnote omitted]. For Gonzalez, "the demand for food justice is ultimately a call for the vesting of the right to development and the right to permanent sovereignty over natural resources in *peoples* rather than states" (*ibid* at 433 [emphasis in original]). See also Alkon & Agyeman, *supra* note 97.

aesthetic concerns, it is possible to instead situate these articulations within the emerging idea of a "right to landscape".[110] The European Union's 2000 *European Landscape Convention*[111] and UNESCO's 2012 *Florence Declaration on Landscape*[112] demonstrate heightened concern for landscape degradation and a contemporary push for the safeguard of landscapes. In these accounts, landscape pertains to "the expression of the relationship between people and environment" with a recognition of "landscape [as] a common good" and "the right to the landscape [as] a human necessity."[113] That said, there has been very little work on the right to landscape situated within wider concerns about "just transition"[114] and global environmental or climate justice.[115]

To be sure, a core dimension of the residents' landscape claims turns on the perceived aesthetic impact of renewable energy projects. In the words of one resident,

> [Solar farms are] hideous. [The solar companies] are not doing anything to buffer them visually. And people are asking, 'what are you doing to our beautiful county?' No, we're not going to stand for this. And to a lesser extent there's that same feeling with regard to industrial wind turbines. They're a blight on the landscape – that's how people feel.[116]

As the resident continued,

> It's that people down here—what we see with respect to our landscape—find the solar installations really ugly and intrusive. Like I said, they go in, and they just totally scarify a gigantic piece of land

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[110] See generally Shelley Egoz, Jala Makhzoumi & Gloria Pungetti, eds, *The Right to Landscape: Contesting Landscape and Human Rights* (Farnham, UK: Ashgate, 2011).

[111] Council of Europe, *European Landscape Convention*, 20 October 2000, Eur TS No 176 (entered into force 4 January 2004).

[112] UNESCO, Final Declaration of the UNESCO International meeting on 'The International Protection of Landscapes', *Florence Declaration on Landscape, 2012*, (September 2012), online: UNESCO <whc.unesco.org/document/123336>.

[113] *Ibid*, Preamble. See also *European Landscape Convention*, *supra* note 111, Preamble.

[114] "Just transition" is a phrase that is used in political discourse as shorthand for the idea that the transition to a lower carbon future should be attentive to issues of equity for those whose livelihoods dependent on a fossil fuel economy (see generally Peter Newell & Justin Mulvaney, "The Political Economy of the 'Just Transition'" (2013) 179:2 Geographical J 132).

[115] For a discussion of global environmental justice, see generally Joan Martinez-Alier et al, "Is There a Global Environmental Justice Movement?" (2016) 43:3 J Peasant Studies 731; Dan van der Horst & Saskia Vermeylen, "Local Rights to Landscape in the Global Moral Economy of Carbon" (2011) 36:4 Landscape Research 455; Dan van der Horst & Saskia Vermeylen, "Ownership Claims, Valuation Practices, and the Unpacking of Energy-Landscape Conflicts" (2012) 22:3 Intl Rev Sociology 429.

[116] Interviewee no 5, *supra* note 92.

> and they dig up all the topsoil and they put down all this gravel and then they throw down these black panels and they all have a giant fence around them with razor wire on the top. We have beautiful countryside down here, there's resistance to that.[117]

But the resistance to green energy projects we encountered in southwestern Ontario raises questions more fundamental than mere concerns about aesthetics. How should we receive claims by residents that renewable energy projects are interfering with the landscape, when those people articulate a profound connection to and affection for a particular landscape?

When perceived as a "right to landscape", articulations of a severed connection to a valued landscape may incorporate, to varying degrees, entrenched notions of private property. In this respect, "[q]uestions of property are questions related to who can—and cannot—make legitimate claims to occupy, appropriate, or alienate landscapes."[118] These notions are present in a response from a resident who noted that "land ownership—it's a touchy subject for a lot of farmers. Ya know they identify with the ownership of their land. In many cases [it's] their retirement funds."[119] Yet, the lament for the loss of a landscape can also have the potential of affirming the attachments of "non-owners" to land and for extending rights to a collective that may even challenge contemporary capitalist commitments to what is possible on a landscape.[120] It is in this context that we might receive the same resident's remarks that "the attachment to a land holding is not nearly as pronounced as it was, even a generation ago."[121]

Here, we might also consider the perspectives which address how landscape intersects with everyday social life. Attentive to the naturalization of social relations through landscape, critical geographers have focused on landscape's encoding of meaning, relations, practices, and histories. These accounts view landscape as "driven by real people and their ef-

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117 *Ibid*.

118 Gunhild Setten & Katrina Myrvang Brown, "Landscape and Social Justice" in Peter Howard, Ian Thompson & Emma Waterton, eds, *The Routledge Companion to Landscape Studies* (London: Routledge, 2013) 243 at 250. See also Frode Flemsæter, Gunhild Setten & Katrina M Brown, "Morality, Mobility and Citizenship: Legitimising Mobile Subjectivities in a Contested Outdoors" (2015) 64 Geoforum 342.

119 Interviewee no 6, *supra* note 81.

120 See Estair Van Wagner, "Putting Property in its Place: Relational Theory, Environmental Rights and Land Use Planning" (2013) 43:1 RGD 275 at 279–83.

121 Interviewee no 6, *supra* note 81.

forts."[122] But as Don Mitchell and Carrie Breitbach ask, "*Which* social relations make landscape's forms?"[123] On these terms, as Mitchell states elsewhere, the crucial query is not "whose landscape?", but rather "landscape for whom?"[124] Claims surrounding the loss of landscape value, as Mitchell has demonstrated in the fields of California,[125] often promote exclusionary tendencies. There are racialized, gendered, classed, and laboured implications of "spatially unjust landscape processes."[126] As an example, in southwestern Ontario, despite the central importance of migrant labour to the harvesting of crops—work which is undertaken by migrant farmworkers from Mexico and the Caribbean who enter Canada under the exploitative terms of the seasonal agricultural workers program[127]—the right to landscape most often articulated is one grounded in white, "propertied citizenship".[128] Sometimes, this notion goes as far as seeming to strive for a right to a landscape that does not include racialized bodies at all, notwithstanding their centrality to the functioning of agricultural production in Norfolk County.[129] Further, it is clear that the pressing settler-colonial imperative of erasing and denying Indigenous sovereignty plays a major role in structuring prevailing patterns of agricultural land use, access, and control.[130]

On this understanding of landscape, we can see a complex relationship between people and place. In this relationship, following Don Mitchell and other critical geographers, place is shaped by the strivings of ordinary

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122 Don Mitchell & Carrie Breitbach, "Landscape: Part I" in John A Agnew & James S Duncan, eds, *The Wiley-Blackwell Companion to Human Geography* (Oxford, UK: Wiley-Blackwell, 2011) 209 at 211.

123 *Ibid* [emphasis in original].

124 Don Mitchell, "Right to the City/Right to Landscape: From an Elitist to a More Just Urban Landscape in California's East Bay Area" (talk delivered at Beit Zatoun, Toronto, 9 July 2015), online: YouTube <www.youtube.com/watch?v=jxI8dye_GO0>.

125 See Don Mitchell, *The Lie of the Land: Migrant Workers and the California Landscape* (Minneapolis: University of Minnesota Press, 1996) at 130–55.

126 Setten & Brown, *supra* note 118 at 245.

127 See Adrian A Smith, "Legal Consciousness and Resistance in Carribean Seasonal Agricultural Workers" (2005) 20:2 CJLS 95. See also Vic Satzewich, *Racism and the Incorporation of Foreign Labour: Farm Labour Migration to Canada since 1945* (London: Routledge, 1991).

128 Adrian Smith, "The Bunk House Rules: A Materialist Approach to Legal Consciousness in the Context of Migrant Workers' Housing in Ontario" (2015) 52:3 Osgoode Hall LJ 863 at 898.

129 See generally *ibid* (exploring the role of migrant workers in Norfolk County).

130 See Adrian A Smith, "Toward a Critique of Political Economy of 'Sociolegality' in Settler Capitalist Canada" in Mark Thomas, Leah Vosko & Carlo Fanelli, eds, *Change and Continuity: Rethinking the New Canadian Political Economy* (Montreal & Kingston: McGill-Queen's University Press) [forthcoming].

people and infused within social relationships and processes of racialization, gender, class, and colonization. Rural identities in the global North, in particular, are shaped by "place and property relations" in such a way as to entrench existing privilege.[131] We thus acknowledge that a right to landscape can work in a way which reinforces norms of propertied citizenship and whiteness, and denies Indigenous sovereignty. As we show in the next part, however, we also hold on to its potential for *countering* the dominance of private property by exposing how this legal framework fails to fully capture the set of relations that people can have with land and landscape.[132] As Indigenous legal scholars such as John Borrows and others have argued for years, articulations of an alternative set of relations to land and landscape, claims that privilege "place" over property, would emphasize relations of responsibility and reciprocity with land and landscapes, rather than "rights" to them.[133]

III. Situating Resistance to Green Energy

As we have demonstrated, the characterization of green energy resistance in Ontario as pure NIMBYism unfairly, and sometimes erroneously, portrays critics of renewable energy projects as irrational and narrowly self-interested actors. Even when the resistance has been recognized as grounded in a place-based attachment to landscape, this too is brushed off as instrumental. These framings not only work in service of state interventions to limit public participation and local control over decision making, but, we suggest, may establish troubling precedents as we move forward in the transition from fossil extractivism and limit the transformative potential of the green energy economy.

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131 James McCarthy, "First World Political Ecology: Lessons from the Wise Use Movement" (2002) 34:7 Environment & Planning A 1281 at 1295 [emphasis omitted] [McCarthy, "First World Political Ecology"].

132 We agree with Van Wagner: "[I]t is possible to remain attuned to the danger of depoliticization and parochialism of place, while simultaneously exploring opportunities to build relations of reciprocity with the land and foster progressive planning as we 'learn to live well together in the land'" (Estair Van Wagner, "Law's Rurality: Land Use Law and the Shaping of People-Place Relations in Rural Ontario" (2016) 47 J Rural Studies 311 at 314 [references omitted] [Van Wagner, "Law's Rurality"]).

133 See e.g. John Borrows, "Living Between Water and Rocks: First Nations, Environmental Planning, and Democracy" (1997) 47:4 UTLJ 417; Leanne Betasamosake Simpson, "Land as Pedagogy: Nishnaabeg intelligence and rebellious transformation" (2014) 3:3 Decolonization: Indigeneity, Education & Society 1. See also Estair Van Wagner, "Law's Ecological Relations: The Legal Structure of People-Place Relations in Ontario's Aggregate Extraction Conflicts" (2016) 12 Projections: MIT J Planning 35 [Van Wagner, "Law's Ecological Relations"].

Our preliminary results lend further support to other empirical findings that local community resistance to renewable energy projects, while framed as NIMBYism, "often articulates with other, broader concerns" [134] about governance, as well as procedural and distributive justice. In this respect, an engagement with the "sacrifice zones" framework is apt. In examining resistance to renewable energy through the sacrifice zone lens we strive to sharpen the analytical tools—and ultimately the practices—of environmental justice. How, then, should we receive, conceive of, and theorize this resistance? Recalling that we began from the premise that environmental justice requires us to consider not just *whether* we tackle climate change by transitioning from fossil extractivism, but also *how* we undertake the transition, we argue that accounting for the distributive effects of renewable energy projects must occur with a view to shifting power relations and social dynamics. As demonstrated with respect to the adverse health effects claims, failure to do so mimics the very tactics of "manufacturing uncertainty", which the environmental justice movement has struggled to contest.

As the previous sections make clear, we cannot wholly accept the "sacrifice zone" characterization of the renewable energy resistance that we encountered in southwestern Ontario. Still, an engagement with it helps to clarify and sharpen our understanding of the challenges inherent in transitioning away from fossil extractivism. In each of the three registers of renewable energy resistance identified, we found meaningful and substantive concerns that expose deep tensions within green energy enthusiasm. Nor do we believe we can dismiss the resistance merely on the basis of the characteristics of the people or communities mounting it. Instead, in taking the resistance seriously, we need to deepen appreciation of how the claims are infused with and cannot be detached from broader relations of production and consumption. In line with Laura Pulido, we would not want a narrow emphasis on "race" in the environmental justice movement to prevent scholarly interrogation of these contemporary conflicts, which can advance nuanced understandings of how racism and settler colonialism interact with the forces of capitalist production and consumption to "create highly oppressive circumstances."[135]

A goal of environmental justice activists is sometimes to "even out" burdens or sacrifices across a more diverse range of communities and,

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[134] Shaw et al, *supra* note 6 at 42. In the context of aggregate quarries, Estair Van Wagner characterized the resistance of residents to be "all at once instrumental and affective, conservative and transformative, exclusionary and reciprocal" (Van Wagner, "Law's Ecological Relations", *supra* note 133 at 47).

[135] Laura Pulido, "A Critical Review of the Methodology of Environmental Racism Research" (1996) 28:2 Antipode 142 at 148.

where necessary, impose them on more affluent or relatively privileged peoples and communities "for the greater good."[136] These distributive justice concerns, as Shaw and her colleagues found in their recent empirical study of opposition to renewable energy projects across Canada, took on a particular tenor in the context of an urban-rural political divide in Ontario:

> Urban Ontario receives the bulk of the energy produced while rural Ontario endures the impacts of wind energy infrastructure. Despite repeated claims of economic development opportunities and increased levels of local employment in rural areas, community members described their sense that few tangible benefits in the form of jobs or community economic development have transpired, beyond landowners leasing their property for turbines. Rather, host communities expressed the feeling that multinational developers and institutional investors have accrued most of the economic benefits.[137]

The *Green Energy Act, 2009*'s transfer of decision-making authority from local municipalities to the province exacerbated the urban-rural division.[138] Opportunities for public involvement prescribed by the province included modest and "formulaic open houses in which communities responded to plans after they were formed. There were no opportunities for community members to collaboratively discuss the benefits and risks of hosting wind turbines, or have any material influence over the outcome."[139] This situation left many municipalities upset at the province's aggressive promotion of wind power at the expense of local control, with few options other than to declare themselves "unwilling hosts".[140] Municipal disputes also emerged over solar power, albeit in far less pronounced and protracted terms.[141]

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136 Although, as Daniel Faber argues, the movement must strive for more than just a "'fair' distribution" of environmental harms (Daniel Faber, "A More 'Productive' Environmental Justice Politics: Movement Alliances in Massachusetts for Clean Production and Regional Equity" in Ronald Sandler & Phaedra C Pezzullo, eds, *Environmental Justice and Environmentalism: The Social Justice Challenge to the Environmental Movement* (Cambridge, Mass: MIT Press, 2007) 135 at 145).

137 Shaw et al, *supra* note 6 at 46.

138 See *Green Energy Act, 2009*, *supra* note 22, s 5. Shaw and her colleagues remark that "communities began to see the provincial government as a proponent rather than neutral arbiter of wind development" (Shaw et al, *supra* note 6 at 45). See also Stephen D Hill & James D Knott, "Too Close for Comfort: Social Controversies Surrounding Wind Farm Noise Setback Policies in Ontario" [2010] 2 Renewable Energy L & Policy Rev 153.

139 Shaw et al, *supra* note 6 at 45.

140 Martin, *supra* note 80.

141 Failing Hamilton city council approval, for instance, Samsung Renewable Energy withdrew its application for a "60,000-solar-panel farm" project to be built in Flamborough

In the end, to the extent that the provincial green energy agenda attempted to foist sacrifices on segments of rural Ontario, it had limited success. Although the struggle is still in progress, it is evident that the Ontario government has recently been forced to backtrack on its initial green energy policy, in what commentators are referring to as a green energy "reversal".[142] While we do not credit the dramatic policy shift solely to the types of resistance we describe here, we do believe it played some role in repelling burdens—but not before certain rural residents and communities experienced health, arable land, food sovereignty, and landscape value effects. The capacity of residents to re-shift these burdens underscores their enduring privilege.[143] In this respect, environmental burdens, even in a green energy economy, continue to flow along familiar gradients. What Lerner says distinguishes residents of sacrifice zones under extractivism—the more classic "downwinders" of environmental justice stories—is that they are "required to make disproportionate health and economic sacrifices that more affluent people can avoid."[144] That those resisting green energy projects in Ontario were not, by and large, racialized or marginalized low-income communities is significant, and perhaps helps to explain their recent successes.[145] In fact, as explored in the previous part, the relative political power of those mounting resistance might be attributed to their strategic deployment of whiteness and propertied citizenship.

Anna Willow has argued recently that, increasingly, people everywhere are contending with environmental changes "that they did not authorize and do not benefit from."[146] We believe that our analysis here demonstrates that these feelings are strongly articulated in the language of environmental justice, regardless of whether the communities themselves can be characterized as racialized, marginalized or oppressed. Willow argues that scholars have "overlooked the potential of environmental

("Samsung Pulls Plug on Flamborough Solar Farm", *CBC News* (8 August 2015), online: <www.cbc.ca>).

142 See Ontario, "Ontario Suspends Procurement", *supra* note 85. See also Rob Ferguson, "Ontario Government Scraps Plan for $3.8 Billion in Renewable Energy Projects", *Toronto Star* (27 September 2016), online: <www.thestar.com>.

143 See e.g. Laura Pulido, "Rethinking Environmental Racism: White Privilege and Urban Development in Southern California" (2000) 90:1 Annals Assoc American Geographers 12.

144 Lerner, *supra* note 2 at 3.

145 While we did document some resistance by members of the Six Nations community, the overwhelming majority of those who make up the wind and solar resistance movements in southwestern Ontario are white, middle-class property owners.

146 Anna J Willow, "The New Politics of Environmental Degradation: Un/expected Landscapes of Disempowerment and Vulnerability" (2014) 21 J Political Ecology 237 at 240.

degradation to indicate groups' changing status," mapping, in her study of white anti-fracking activists in Ohio, the articulations of environmental injustice "among those for whom disempowerment and vulnerability are new experiences."[147] We agree with Willow that investigating the impacts of uninvited environmental change on relatively privileged communities may "expose ongoing structural shifts."[148]

Environmental justice scholarship understands the pollution burdens on poor and racialized communities to stem primarily from structural inequities, such as a lack of "political and financial resources to challenge ... siting decisions."[149] Environmental justice activism has thus been couched in terms of "environmentalism of the poor"[150] and contrasted with the "[e]cology of [a]ffluence",[151] which Ramachandra Guha describes as a "luxury, leisure-time concern,"[152] often focused on the "conservation of remote, wild landscapes."[153] This kind of environmentalism is more likely to be characterized as affection for "particular *representations* of nature,"[154] as opposed to stemming from meaningful contact and interactions with the land in question. However, as Leah Horowitz argues:

> [N]ot all the environmental concerns of the relatively affluent result from boredom and self-indulgence ... [T]hey, too, may oppose the siting of environmentally destructive facilities or infrastructure in their own neighborhood. When such concerns are expressed by the middle or upper classes, particularly in the developed world, they are often contemptuously labeled NIMBY (not in my backyard) and glossed

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147 *Ibid* at 242. There are interesting parallels between the tactics of renewable energy company representatives described to us and the tactics of the "landmen" (i.e., corporate agents) in the shale gas context. Many of our informants argued, as did participants in Willow's study, that "the activities of a powerful industry are infringing on fundamental rights and undermining core democratic values" *(ibid* at 247).

148 *Ibid* at 242.

149 Leah S Horowitz, "Power, Profit, Protest: Grassroots Resistance to Industry in the Global North" (2012) 23:3 Capital Nature Socialism 20 at 24.

150 See generally Joan Martinez-Alier, "Ecology and the Poor: A Neglected Dimension of Latin American History" (1991) 23:3 J Latin American Studies 621; Joan Martinez-Alier, *The Environmentalism of the Poor: A Study of Ecological Conflicts and Valuation* (Cheltenham, UK: Edward Elgar, 2002). See also Ramachandra Guha, "The Environmentalism of the Poor" in Richard G Fox & Orin Starn, eds, *Between Resistance and Revolution: Cultural Politics and Social Protest* (New Brunswick, NJ: Rutgers University Press, 1997) 17.

151 J Martinez-Alier, "Distributional Obstacles to International Environmental Policy: The Failures at Rio and Prospects After Rio" (1993) 2:2 Environmental Values 97 at 118.

152 Guha, *supra* note 150 at 18–19.

153 Horowitz, *supra* note 149 at 24.

154 Dan Brockington, "Powerful Environmentalisms: Conservation, Celebrity and Capitalism" (2008) 30:4 Media, Culture & Society 551 at 553 [emphasis in original].

> over as attempts to resist a LULU (locally unwanted land use). Studies of NIMBY have uncovered its complexity, noting that no instance "branded with this name" perfectly fits its definition.[155]

Maarten Wolsink and others have insisted that, rather than resulting from selfishness and instrumentalism, this resistance is often about "equity and fairness",[156] or "place attachment"[157] and its associated identities. In other words, those engaged in activism characterized as NIMBYism and those engaged in environmental justice struggles "often share similar concerns despite their obviously different socio-economic conditions."[158] In this respect, we join with political ecologists such as James McCarthy who might emphasize the similarities rather than the differences between these groups.[159] McCarthy notes how rurality in the contemporary global North is constructed around an identity of marginality; that is, rural residents often "believe themselves to be marginal."[160] They sense that their populations are shrinking relative to cities; that they are experiencing a declining political significance. McCarthy notes that they often express the sense that their communities are "run by and for external interests":[161] we certainly heard in our interviews several different articulations of the sentiment that "all those environmentalists down in Toronto should have turbines in their own backyards, if they like renewable energy so much." As Van Wagner notes, the "working landscapes of rural places" are often construed as "a potential sacrifice zone where resource demands can be satisfied."[162]

A meaningful engagement with renewable energy resistance demands an analytical framework which allows us to receive those claims based on adverse health effects, competing land uses, and landscape values within an understanding of how each is shaped by social processes and relations of racialization, class, and settler colonialism. In particular, we must pre-

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155 Horowitz, *supra* note 149 at 24 [references omitted].

156 See Maarten Wolsink, "Wind Power Implementation: The Nature of Public Attitudes: Equity and Fairness Instead of 'Backyard Motives'" (2007) 11:6 Renewable Sustainable Energy Reviews 1188.

157 See Patrick Devine-Wright & Yuko Howes, "Disruption to Place Attachment and the Protection of Restorative Environments: A Wind Energy Case Study" (2010) 30:3 J Environmental Psychology 271.

158 Horowitz, *supra* note 149 at 24.

159 McCarthy's influential study applied the insights of what was previously thought of as "Third World political ecology" in the context of the land and logging struggles in the First World of the American West (see generally McCarthy, "First World Political Ecology", *supra* note 131).

160 *Ibid* at 1285.

161 *Ibid* at 1296.

162 Van Wagner, "Law's Rurality", *supra* note 132 at 311.

serve the ability to take seriously the counter-hegemonic potential of the right to landscape claim, grounded in a "sense of place", in appropriate situations or contexts. In thinking through the counter-hegemonic potential of that claim, we are reminded of James McCarthy's comment that "[not] everyone is always fully aware or supportive of the critiques of capitalism that might be implicit in their particular environmental concerns."[163]

The notion of narrow economic self-interest underlying the NIMBYism construction also invites the idea that community benefits would mitigate concerns, but in fact scholarship on community *ownership* of renewable energy projects downplays the role of economic gain in garnering support: Derek Bell and his colleagues found that it was as much about local control and involvement as it was about any potential profits.[164] Similarly, according to Willow, "*uninvited* environmental change transforms people's understandings of and relationships to the natural world," leading to feelings of disempowerment and vulnerability.[165] After describing his own experience of devastating health effects and ruined relationships with neighbours and friends he attributes to a wind turbine, one resident we interviewed sighed and stated, "I think really what it boils down to is the unfairness of the process."[166] For us, this comment goes to the notion of "local control" meant to be cast aside by the NIMBYism label. Those demanding local control over landscapes are, in some ways, seeking a radical departure from the prevailing capitalist organization of renewable energy development. It is crucial to emphasize that, in the context of Ontario, the transition to renewables is fuelling the trend *away* from public ownership of energy-generating assets.[167] Thus, at the end of the day, as much as the government would construe this resistance as conservative and self-serving, it *is* presenting obstacles for capital, and perhaps even

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163 James McCarthy, "We Have Never Been 'Post-political'" (2013) 24:1 Capital Nature Socialism 19 at 21 [McCarthy, "Post-Political"].

164 See Bell et al, *supra* note 35 at 126–31. The significant growth in small-scale renewables achieved across Germany and Denmark in the 1990s is said to have been achieved through both the distribution of shares and local control over the terms of development (see Julie L MacArthur, *Empowering Electricity: Co-operatives, Sustainability, and Power Sector Reform in Canada* (Vancouver: UBC Press, 2016) at 18–19). Still, most wind energy projects in Ontario primarily deliver profits to corporate developers and individualized benefits to a small number of large-parcel landholders leasing land to those developers in order to host turbines (see Fast & Mabee, *supra* note 81 at 33–34).

165 Willow, *supra* note 146 at 237 [emphasis added].

166 Interviewee no 4, *supra* note 48.

167 See MacArthur, *supra* note 166.

acts as a countervailing force to neo-liberalizing trends, even though it is not "explicitly oriented against the deepening of capitalist relations".[168]

Conclusion

The resistance to green energy projects in southwestern Ontario presents some challenging questions for environmental justice scholars and activists. In considering how to receive claims about adverse health effects of wind power (i.e., "wind turbine syndrome"), we argued that our attitude toward the claims should be based less on the identity of the residents complaining, and more on an analysis of power relations and social dynamics in relation to knowledge and expertise. In considering how we should adjudicate claims to land as between those who want to preserve it for food production, and those who would use it for solar power generation, we called for the development of nuanced accounts of food justice that can take these tensions into consideration. With respect to Indigenous peoples' struggles for food sovereignty, we argued that the settler-colonial context must be considered and the ongoing subordination of Indigenous law to colonial law is a pressing matter of concern for environmental justice scholars.

Finally, and most profoundly, we considered how we should receive claims by residents that renewable energy projects are interfering with the "landscape". When people articulate a connection to land and an affection for a landscape, a complicated set of questions come into view for environmental justice scholars. Recognizing that these claims may have exclusionary and even racist tendencies, we can also see their potential for affirming the attachments of non-owners to land and for extending rights to a collective that may challenge entrenched capitalist conceptions of what is possible on a landscape. To return to the Site C example raised at the outset of this article, it is clear that, in that context, the climate imperative—to reduce greenhouse gas emissions—is now a critical settler-state imperative. And the Site C dam, the displacement and dispossession of Indigenous communities, is justified on climate grounds. Here, the severance of links between land and livelihood and the dismissal of collective claims for the preservation of a landscape that has sustained a people, since time immemorial, clearly demonstrates the need to preserve the possibility that those claims can be heard by environmental justice scholars, as we confront the "voracious appetite for resources and land"[169] that is inherent in not only fossil extractivism, but in the green energy economy as well.

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[168] McCarthy, "First World Political Ecology", *supra* note 131 at 1298.

[169] Dalby, *supra* note 26 at 13.

We conclude that resistance to green energy projects as it is emerging on the ground should not be so easily dismissed as mere NIMBYism. At the same time, the approach to renewable energy governance that emerges from this study of resistance in southwestern Ontario reveals "modes of regulation that are simultaneously effective in reducing carbon emissions while not threatening the power structures that have caused the problems in the first place."[170] As mentioned, the growth in renewables fuelled by the Green Energy Act in Ontario corresponds with a greater proportion of energy generating assets under private control. The counterhegemonic potential at the core of green energy resistance, then, derives from its troubling of the profit-driven incentive structures and lack of participatory engagement that characterize green energy enthusiasm in its current form. Naomi Klein, in *This Changes Everything: Capitalism vs. The Climate*, states that sacrifice zones in an extractivist economy are those "places that, to their extractors, somehow don't count and therefore can be poisoned, drained, or otherwise destroyed, for the supposed greater good of economic progress."[171] She acknowledges that this logic "predate[s] industrial-scale extraction of fossil fuels."[172] Our point is that it may outlast fossil-capitalism as well, if a narrow focus on climate justice, or a shallow conception of the green economy, prevents us from seeing the fundamental reimagining of our economies that needs to take place. In seeking to preserve possibilities in the green energy economy for "true politics[—]antagonism, deep dissent, [and] the space for the imagination [and articulation] of genuine alternatives"[173]—we feel it is important to take resistance seriously.

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[170] *Ibid* at 12.

[171] Naomi Klein, *This Changes Everything: Capitalism vs The Climate* (New York: Alfred A Knopf Canada, 2014) at 169.

[172] *Ibid* at 170.

[173] McCarthy, "Post-political", *supra* note 163 at 22.