Aeolian Extractivism and Community Wind in Southern Mexico

Cymene Howe and Dominic Boyer

Inaugurations

The October 2012 inauguration of the Piedra Larga wind park in Oaxaca's Isthmus of Tehuantepec was the last of President Felipe Calderón's many wind park ribbon-cutting ceremonies. When he served as Mexico's secretary of energy in 2003–4, Calderón helped to accelerate his country's commitment to wind energy. As he ended his presidential term, wind power counted for almost twenty-three hundred kilotons of carbon dioxide reduction in Mexico annually. Calderón's speech on that day was neither triumphant nor a swan song. Instead, it pivoted between hope and precarity. He began with droughts, some of the most severe ever seen in Mexico and, to the north, in Texas. "This is climate change," he said to his audience of several hundred seated in front of him. "Carbon dioxide is like a sweater surrounding the earth," heating the ocean's waters and making for differently distributed weather. "However," he went on, "we cannot stop using electricity or building factories. Instead, we need to make electricity with less smoke. We need to reduce emissions." And here, in the heart of the isthmus, is where much of this effort is already taking place. In 2008 the region had two wind parks producing 84.9 megawatts of wind-generated electricity; four years later there were fifteen parks producing over 1,300 megawatts, a 1,467 percent increase that has made Mexico the second-largest wind power producer in Latin America (see GWEC 2016: 38, 53). Today the Isthmus of Tehuantepec represents the densest concentration of onshore wind development anywhere in the world.

New domestic conservation and sustainability legislation is rising across the

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Figure 1 President Felipe Calderón inaugurates the Piedra Larga wind park in Oaxaca's Isthmus of Tehuantepec, October 2012. Photograph by Cymene Howe

world, and in 2012 developing countries passed twice as many environmental laws as wealthy nation-states did (*Economist* 2013). Suffering the effects of a changing climate, and facing diminishing oil reserves, Mexico has been both pulled and pushed toward adopting ambitious and comprehensive climate legislation that many experts consider groundbreaking (World Bank 2013). Thirty-five percent of Mexico's energy is legally mandated to come from clean sources by 2024, with 50 percent of that currently slated to come from wind power alone (GWEC 2015: 12). With incentives to develop renewable energy, the creation of a voluntary carbon market, a phaseout of fossil fuel subsidies, and a mandate that the largest carbon pollution sectors report their emissions, Mexico's climate laws are among the most extensive in the developing world. In 2012, before leaving office, Calderón signed the General Law on Climate Change, which formalized targets set in previous legislation, instituted a high-level climate change commission and national emissions registry, inaugurated the National Institute of Ecology and Climate Change, and coordinated federal offices to develop holistic mitigation and adaptation planning.

The effects of climate change are being acutely felt in Mexico often in locations where economic and labor prospects are already sparse, leaving rural and agrarian populations doubly vulnerable (Eakin 2006). Mexico's climate legislation and the growth of renewable energy infrastructures are initiatives for both mitigation

and adaptation: securing an adaptive energy future through the forces of wind, solar, and hydroelectric power and mitigating the contaminative, warming effects of carbon loading the atmosphere. Accelerating renewable energy development is indicative of a growing awareness within Mexico's political and economic sectors that adaptation to changing weather and water conditions is crucial and that renewable resources, if usefully tapped, will not only result in less carbon contamination and green power but also further enhance the country's reputation as a leader in climate adaptation and mitigation in the developing world (Howe and Boyer 2015).

Aeolian Extractivism?

In an era increasingly defined by a troubled climate, and in which anthropogenic forces have an impact on our bio-, litho-, aqua-, and aquaspheres in unprecedented ways (Crutzen and Stoermer 2000), we necessarily situate our case study within a wider context of global climate conditions, energy transition, and debates surrounding mitigation and adaptation. The transition from carbon fuels to cleaner energy forms is widely regarded as one of the most pressing environmental and social challenges facing humanity and other planetary life in the twenty-first century. However, it remains unclear how these goals can be achieved, especially given the proliferation of neoliberal economic and social policies across the world in the past three decades, policies that, in Mexico as elsewhere, openly question the legitimacy and effectiveness of state-led programs of development. We thus take Mexico as a critical, paradigmatic case. The Mexican government has produced unusually aggressive legislation to address climate change and support energy transition, and yet these projects remain susceptible to internal and external forces beyond the government's control, ranging from transnational investors' desire for profit to indigenous landowners' concerns about a "second conquest" that will deprive them of their land and livelihood. We wish to underscore that the commitment Mexico has made to climate remediation is laudable, especially given that the country was never compelled to do so by any international protocol. In their ambitious plan to address climate harm, however, Mexican officials and industry leaders have largely failed to link sustainable energy to more robust benefits for local populations, many of them living on the margins of the state and in places where the wind blows the fiercest. In this article, we find not only that there is "more to be done" in the reduction of carbon emissions but also that how that "more" is undertaken is of critical importance. Our core argument is that we cannot fail to use energy transitions as opportunities to rethink dominant politi-

cal, economic, and social institutions. To ignore this dimension is to risk dislodging carbon's dominion, as well as the many inequalities that carbon modernity helped to cement between the global North and South and between metropoles and resource-rich hinterlands.

While the extractivist orientation of petropolitics has been well documented (see, e.g., Appel, Mason, and Watts 2015; Kashi 2008; Sawyer 2004; Sawyer and Gomez 2012), the politics of renewable energy remain relatively nascent. Sustainable energy projects have the potential to imitate the political and institutional logics informed by coal, oil, and gas (Mitchell 2011), or they might pursue different trajectories altogether. In many places in Latin America, including Mexico, efforts to address climate change must be understood against a backdrop of enduring economic and political marginalization, making low-carbon energy transition all the more precarious (Davis 2010; Giddens 2009; Howe 2015). Just as colonial and foreign corporate "extractivism" (Bebbington 2009; Gudynas 2009) has benefited affluent patrons and regions at the expense of others, we see a real danger that "green capitalist" renewable energy initiatives will emerge as new modes of resource exploitation legitimized by the urgency of climate change mitigation.

In our research we found that large-scale renewable energy projects in southern Mexico tended to prioritize the interests of international investors and federal officials over local concerns about cultural and environmental impact (see also Gómez Martínez 2005). Renewable energy projects that follow the same extractive frameworks that defined colonial and carbon modernity (Mitchell 2011) could very well result in backlashes against sustainable forms of energy production (Howe, Boyer, and Barrera 2015). This would only further stall low-carbon energy transition and climate mitigation, a result that the planet can ill afford. Failure to rethink an extractive model of energy production could likewise result in deepening geopolitical inequalities and lead, possibly, to a form of climatological imperialism in which the global South is tasked with rehabilitating the (much more historically contaminative) global North. Given these challenges, we suggest that Mexico faces a fundamental paradox in its transition to renewable energy: while the state and renewable power companies have initiated a potentially powerful intervention into climate mitigation and adaptation, if they fail to fully involve local populations and account for an ongoing legacy of exploitation, they risk undermining the positive contributions that low-carbon initiatives seek. The success of renewable energy transition in Mexico and elsewhere, we believe, will depend not only on technical and economic solutions for supplanting carbon energy use but also on whether new energy projects can be enacted more equitably and with greater attention to local resource sovereignty (McNeish and Logan

2012) than has been the case with fossil fuels. We offer in this essay a detailed case study of one such effort toward changing the paradigm of renewable energy development: the plan to build a community-owned wind park near the town of Ixtepec in the state of Oaxaca, Mexico.

The research we discuss here draws upon sixteen months of collaborative ethnographic fieldwork and approximately two hundred interviews with landowners, workers, fisherfolk, and activists in the Isthmus of Tehuantepec, as well as with municipal, state, and federal government officials, representatives of renewable energy corporations, development bankers, and financiers in the state capital of Oaxaca City and the nation's capital, Mexico City. In our study we draw upon local knowledge and local concerns to call attention to the dangers of allowing—whether in the name of urgency, expediency, or inevitability—renewable energy development to repeat the inequalities and translocal bias of carbon energy extractivism. Our project has focused on charting and analyzing the relationships among all stakeholders in wind power development in Oaxaca, and we have found that while *istmeños* is often referred to as "partners" (*socios*) in energy and climate change discourses among government officials and corporate representatives, oftentimes "partnership" amounts to local elites receiving land rents for a fraction of what similar rents might look like in the United States. Ambivalence regarding the local benefits of wind power has spread across the isthmus in recent years, in some cases leading to violence. In one dramatic case, a plan to build the largest (396 megawatts) wind park in Latin America collapsed after months of protests and a series of death threats (Howe, Boyer, and Barrera 2015). It is too early to speak of a "wind curse" parallel to the oft-cited "oil curses." But doubts are growing that wind development is anything more than another extractive enterprise foisted upon *istmeños* by northern elites. To rebalance the benefits afforded the windy isthmus, the community of Ixtepec is now trying to create the first community-owned wind park in Latin America. But, as we describe in some detail below, whether it will ever be permitted to exist remains an open question.

The first step toward understanding the tensions that surround the bid for community wind in Oaxaca is to analyze the foundational technopolitical instrument of Mexico's renewable turn: the policy regime of *autoabastecimiento* (self-supply).

Autoabastecimiento

In Mexico, there is only one way to receive electricity and that is through the grid of the Federal Electricity Commission (Comisión Federal de Electricidad, or CFE). A parastatal corporation that holds a monopoly over the country's cur-

rent, the CFE is tasked with supplying electricity to the entire nation, from lower-income residents (whose bills are subsidized) to commercial customers (who pay relatively high rates for their power). According to the director of the Energy Regulatory Commission (Comisión Reguladora de Energía, or CRE), which oversees the national energy sector, there are two distinct drivers of renewable energy in Mexico: the high (commercial) cost of electricity and the country's exceptional solar, wind, and hydroelectric resources. The CFE is required by law to buy the least expensive power available for its customers. Thus when the federal government considers the construction of a new power plant, a public tender is called by the CFE, and the winner is determined based on cost per megawatt hour offered. Effectively, renewable energy projects must compete against conventional energy sources on the basis of price, a difficult proposition given the relatively low market cost of fossil fuels.

To encourage private investors to develop electricity production from renewable sources, the CRE created different formulas in lieu of participation in the general tenders. Space in the substations was cordoned off for wind, and, in turn, private-sector developers and the CFE were allowed to enter into temporary public-private partnerships for the sole purpose of developing new high-capacity transmission infrastructure. Rather than invest directly in the development of wind parks, the CRE elected to allow the sector to be fully privatized. It saw this as a mandate of efficiency, insisting that private companies had better expertise to make optimal use of wind resources. However, more pointedly, the decision to pursue private models of renewable energy development is steeped in Mexico's neoliberal economic model that has dominated the country since the 1980s (Gledhill 1995; Ochoa 2001). Renewable energy, as with other neoliberal ventures, makes states and populations vulnerable to the influence of corporate and capitalist interests in search of profit maximization rather than environmental or social benefits.

It is in this legislative, sociotechnical, and financial environment that Mexico's secretary of energy and other state-level officials promoted and instituted a model of self-supply energy production for the wind resources of the isthmus. Corporate self-supply, or *autoabastecimiento*, requires that the companies that purchase wind park electricity—such as Walmart, Coca-Cola, and CEMEX—are also co-owners of wind power plants. Companies buy power at a locked-in, lower than market rate, usually for a period of twenty years. The infrastructural advantage of *autoabastecimiento* is that the CFE is able to auction off space in substations and, often, to oblige wind park developers to augment or build the required technical extensions and infrastructural systems that carry electrons from place to place. *Autoabastecimiento* now rules the Isthmus of Tehuantepec, constituting

about 75 percent of wind power development in the region. As a form of energy management and financing, it has led to at least three outcomes: it has ensured the dominance of private-sector ownership of Oaxacan wind power production; it has all but guaranteed that renewable electricity will be consumed solely by corporate partners; and it has compelled private developers and investors to augment electricity infrastructure that the state is not willing, or able, to subsidize.

In a twist on the neoliberal model, the Mexican government has obligated private companies to pay for infrastructural improvements usually undertaken by the state; if wind energy corporations want to get their power to the grid, in other words, they must finance that grid. The director of the CRE was very proud—as he repeated several times during our interview—that "Mexico, unlike the gringos, has no state subsidies for renewable energy." Instead, private energy companies are forced to take up the infrastructural slack. As one Mexico City journalist who had covered the energy sector for many years explained to us: "The [renewable energy companies] feel like they are getting a shitty deal from CFE. CFE makes them pay for their own transmission towers and for the substation . . . they aren't making much on these projects. But then again where else are you going to find this kind of wind?"

That wind, of course, blows over land. The state of Oaxaca, considered by many to be the indigenous "heart" of Mexico, is equally well known for its communal property regimes that date back to the Mexican Revolution (see Binford 1985). Although the federal government retains ownership, *ejido* (collectively managed land) and *bienes comunales* (communal property) are agrarian land designations that grant stewardship to specific groups of individuals.. Providing resources to landless peasants (in the case of *ejidos*) and with the intention to preserve indigenous peoples' rights to their traditional lands (in the case of *bienes comunales*), each property regime was instituted to ensure the continuation of customary law (*usos y costumbres*) and pre-Hispanic forms of leadership as well as collective governance. In the isthmus both models were widely used through the 1980s, although several *ejidos* were semiprivatized through the Program for the Certification of Ejido Land Rights and the Titling of Urban House Plots (Programa de Certificación de Derechos Ejidales y Titulación de Solares Urbanos, or PROCEDE), a 1992 legal provision that certified land titles and registered individual landholders. The North American Free Trade Agreement (NAFTA), the Agrarian Law Reform, and PROCEDE, coupled with the 1992 Electric Energy Public Service Law, allowed local landholders to individually contract land with private interests (such as wind power developers) and gave private-sector companies the ability to participate in electric power generation.

Despite widespread privatization, some of the best land for wind development in Oaxaca continues to be maintained as communal property. While some *ejidos* have elected to adopt neoliberal land reforms and have signed private contracts with wind companies, others have refused. Although much of the resistance has been to wind power in general, the *comuna* (communal farmers) of Ixtepec has uniquely pursued an alternative "energopolitical" path (Boyer 2014).[1] The Ixtepec *comuna* has embraced the idea of wind development, but only as a community-owned endeavor, an unprecedented proposition in the *autoabastecimiento* heartland. Partnering with a nongovernmental organization (NGO), Yansa, the *comuna* has articulated an ambitious plan to change wind power not only in Mexico but also across the developing world. In the sections that follow we offer a more detailed ethnography of this plan, the key characters involved in its formation, and the challenges they have faced in implementing it in the context of the *autoabastecimiento* policy regime.

"This Isn't Denmark"

We first learned of the Yansa Ixtepec project in the course of background research and quickly sought a meeting with the NGO's founder, Sergio Oceransky. Yansa's model is to link wind power to social development targets in Ixtepec and two nearby villages whose land would also be affected by the wind park. The resources for social development would come from a unique partnership that Yansa had designed to connect the NGO, the *comuna*, development banks, and socially conscious investors (Hoffmann 2012).

Oceransky was born in Spain and became increasingly interested in how renewable energy could be harnessed as a tool for social development when he worked for a renewable energy center in Denmark, where community wind has been widely institutionalized. He had heard through members of his family (his mother is Mexican) about the "wind rush" in Oaxaca as well as the rising resistance to wind park projects. He traveled to Oaxaca in 2008, spoke with residents likely to be affected by wind parks, and then went to Mexico City to meet with the industrial lobbying organization spearheading wind development in Oaxaca, the Mexican Wind Energy Association (Asociación Mexicana de Energía Eólica, or AMDEE). "Nowadays they've got a more polished message," Oceransky grinned. "But back then what I was hearing from them was really outrageous, blunt, even racist. They viewed the communities as villains, ignorant people ruled by local

1. *Energopolitics* refer to the ways in which energic forces and fuels shape and compel political power in particular directions (Boyer 2014).

leaders who wanted bribes and were stopping progress. I told the president of AMDEE that in other parts of the world, like Denmark, communities were being engaged more constructively as partners in wind development." Oceransky's comment incited a scowl from the president, and the meeting quickly devolved and ended with a thinly veiled threat: "I don't know what you're going to do with all this information," said the AMDEE representative, "but I'd be careful. This isn't Denmark. Anyone can fall off his horse here."

Oceransky was in no way dissuaded, however. He started traveling frequently from his apartment in Mexico City to the isthmus, connecting with some of the activists working against the wind parks, who in turn had networks in the communities affected. "One of the first things was to try to shift their perspective on wind energy. For a lot of people it had become something evil, it meant giving your land to Spaniards," he explained. But Oceransky saw another potential future that he began to share across the *istmo*. He was convinced that community-owned wind was possible in Mexico, and his message began to gain traction. By chance, one of the activists with whom Oceransky had spoken shared a bus ride with a *comunero* (*comuna* member) from Ixtepec who mentioned that their *comuna* was already trying to convince the CFE to let it build a community wind park. The CFE needed to use Ixtepecan land in order to build a new substation to collect and evacuate wind park electricity to the high-voltage arteries of the national grid. When the CFE presented the *comuna* with its substation plans, some voiced the idea that Ixtepec should get a community wind park in exchange, to raise revenue for the *comuna*. But this proposal was quickly shot down. The CFE determined that the *comuna* would never be able to raise adequate capital for the park, and therefore when the time came to auction access to the Ixtepecan substation, the CFE ignored the *comuna*'s request. However, the idea did not disappear for some members of the *comuna*, or for Oceransky, and they have been collaborating ever since.

The Yansa Ixtepec Model

The basic elements of the Yansa Ixtepec partnership have been organized as follows. The partners would bid for the last two hundred megawatts of access to the Ixtepec substation in a public tender organized by the CFE. Assuming that they won the tender, Yansa would immediately form a community interest company (Yansa Ixtepec Compañía de Interés Comunitario, or Yansa Ixtepec CIC) that would own the wind park and negotiate a land lease agreement with the *comuna*. The estimated cost of building the park, consisting of thirty-four 3-megawatt tur-

bines (production capacity of 102 megawatts total), is US$200 million. Construction funds would be raised through a mix of 70–80 percent development bank funding and 20–30 percent from socially responsible investors. Construction jobs would go to local residents, and, once operational, the park would sell its electricity directly to the CFE under a twenty-year contract. The total estimated annual surplus from the park (after servicing debts and interest payments to banks and investors) was Mex$50 million per year (US$3.81 million).

That surplus would be divided fifty-fifty between Yansa and the *comuna*. Yansa would use its half as seed funding for further community wind park projects elsewhere in the world. The *comuna*'s half would be further divided into approximately Mex$3 million in payments to the campesinos, a pension fund would be established, and the two other affected villages would receive funding for their own development targets. The remaining income (approximately US$1.25 million) would go into a community trust to finance social development. Oceransky saw the trust as a vital aspect of Yansa's work. "We want to make sure the whole community sees the benefits. Not just the old men who have traditionally run the *comuna*." To this end, the trust was designed to have over half the trustee positions held by women and two by youth members. The Yansa model included social interventions that pushed to decentralize traditional and masculine institutions of political authority by placing a portion of governance in the hands of women and youth. These political goals seemed to be uncontroversial; perhaps this was because a sufficient number of younger and female members of *comuna* families supported the initiative, or perhaps it was because it was simply unthinkable to the older *comuneros* that something as insubstantial as a wind park proposal could challenge the deep grooves of traditional institutions and relations of political authority. When the "normal *comuneros*" spoke to us about the wind park their interest tended to gravitate toward two issues: what kind of work would be available and what kinds of rent payments would they receive.

The question of payments had a double life when it came to the CFE, too. On the one hand, the utility provided rental payments to the *comuna* for transmission lines. On the other hand, it was seen as inordinately tithing isthmus communities for the power that the grid provided. Well-circulated rumors claimed that the CFE charged customers more in the isthmus (although CFE officials in Mexico City denied this vehemently). The very mention of the CFE usually produced scowls and scoffs, since many residents and small business owners found themselves spending excessive amounts of their monthly income on electricity. One man complained to us, for example, that he was forced to shut the little convenience store he ran out of one window of his house because he could not afford refrigeration.

Given the tiered pricing system the CFE used, just a few kilowatts more expended each month could push a consumer into a higher payment bracket, meaning that a new kitchen appliance might translate into a substantial difference in one's bill.[2]

That consumers are upset about the cost of electricity is by no means unique to the isthmus. But this frustration was inflected by what was viewed widely as the failure of wind parks to improve electrical access and service locally. Time and again we were told by local residents that they believed that wind parks would bring cheaper, more abundant power to them. But the regime of *autoabastecimiento* was designed only to export electricity from the isthmus to large industrial consumers elsewhere in Mexico. The only local grid enhancements were designed for what the industry describes as "evacuation," while even basic electricity service remained intermittent in more remote parts of the isthmus.

Visionaries

Much of the responsibility of organizing and informing the *comuneros* in support of Yansa Ixtepec fell on the shoulders of Oceransky's two closest allies, Daniel González and Vicente Vásquez, who belonged to the small group of *comuneros* who had been pursuing the possibility of a wind park even before Yansa arrived. The two of them were both retired professionals in their midfifties, both deeply disturbed by the federal government's neglect of Ixtepec and the isthmus, both very animated by issues of social justice and particularly indigenous rights. Each of them hoped to use wind power to change life in Ixtepec, making new opportunities available, especially for youth. Vásquez and González exemplify a certain class of *istmeño*: both educated and dedicated to their homelands. Their passionate work on behalf of Yansa Ixtepec demonstrates that it is not simply global elites, such as Calderón, who are invested in innovating new approaches to renewable power and the future of the planet's climate. Rather, local intellectuals like González and Vásquez are insisting on new collective models of energy generation and climate adaptation. In our conversations with them, as in our conversations with Ixtepecan campesinos, questions of jobs and control over land were constant. But the ability to serve as an example to the rest of the world—by establishing the first community-owned wind park in Latin America—was a key motivator as well. Rather than have their communities simply serve as the land upon

2. A CFE agent explained, for example, that his home had four people, two televisions, a refrigerator, and one computer, using about five hundred kilowatt hours per month. If they were to go over that number, to 501 kilowatt hours, their bimonthly bill would go from Mex$900 (US$75) to Mex$2,500 (US$208) because they would lose their subsidy and move up to the next pricing bracket.

which foreign experts and capital would innovate, they believed in the potential of Ixtepec and Oaxaca to raise the bar, on a regional and global basis, for more equitable and inclusive projects of climate change mitigation.

Vásquez had spent most of his life working as a chemical engineer for the Mexican parastatal oil company Petróleos Mexicanos, or PEMEX, but returned to Ixtepec after his retirement and found himself depressed by the lack of possibilities for *el pueblo* (the people). He quoted Hermann Hesse and Karl Marx and told us that, more than anything, Ixtepec needed opportunities to thwart the *indolencia* (apathy) of large sections of the population. "What we're always thinking about," Vásquez told us, "is how to generate more opportunity. The plan is to potentialize things. . . . It's the difference between a *chamba* [job] and *trabajo* [work]. When I work, I'm working physically as well as intellectually. When I do a job, I'm doing it mechanically and don't care about the outcome because that makes no difference to me. This park could reach many, many people."

For González, it was as much a matter of reckoning with pasts as imagining alternative futures. González was the grandson of a rancher and a farmer; he fondly recalled visiting his grandfather's lands as a child. González spoke Zapotec in his youth even though for almost all of his professional life he worked in Spanish. He was teaching his grandson Zapotec now, taking him out to places around the isthmus where Zapotec was still the primary spoken language. González saw the wind park as a means of demonstrating how an indigenous community could become organized and collaborate directly with an NGO to take control of its future. The project was an avenue toward improved roads, reliable sources of water, educational opportunities for young people, pensions for the aged, and an opportunity for people to find real, meaningful work: *trabajo*, not *chambas*.

Although González was always quick to laugh, the undermining of indigenous rights in Mexico deeply troubled him. As a working attorney, he understood the *núcleos agrarios* (agrarian collectives) that formed *bienes comunales*, like the Ixtepecan *asamblea* (assembly), as having inalienable entitlement to their land. This was, for him, more than a moral claim, it was a matter of law. He acknowledged the privatization that occurred among *ejidos* following PROCEDE, but he drew a sharp distinction between *ejidos*, as social forms of the Mexican Revolution, and *comunidades de bienes comunales* (collective property communities), which were established to ensure that descendants of the first peoples of the Americas would maintain their traditional lands (see Kelly et al. 2010; also Cornelius and Myhre 1998; Haenn 2006). "*Ejidos* can now elect to privatize themselves," he explained, "but not, as a matter of law, *comunidades*." González understood that this was a controversial claim, since it involved an interpretation of the Mexi-

can Constitution in which the rights of indigenous communities superseded those of the mestizo nation. His was, needless to say, not the dominant constitutional interpretation communicated to us by corporate participants in wind development in the isthmus who had devised somewhat suspect contracts with *bienes comunales*, only to later encounter strife and resistance. When González spoke of the significance of the Yansa Ixtepec partnership, he was very clear: "No [other] wind company anywhere in the world would offer their expertise in exchange for our land and share every peso equally. None."

Somos Paleros

In late September 2012, the possibility of sharing every peso equally came in danger of disappearing. We attended a long and complex *comuna* meeting in Ixtepec, and those gathered were tired, distracted, and cranky by the time Oceransky announced the bad news: the CFE had excluded them from even competing for access to the substation that lay *on their own land*. He described how the CFE had already given away the rest of the access to six foreign companies ("four of them Spanish") and was demanding US$7 million up front and Mex$548 million in the bank to participate in the competition. And the CFE wanted the tender winner to also pay to prepare the land for a new wind park nearby. Oceransky charged that the CFE was acting illegally and, moreover, violating its own norms. After hearing the litany of abuses, several *comuneros* called out, "¡Hay que demandarlos!" ("We have to sue them!"). The crowd stirred further as they discussed some of the forms of collective legal action that could be taken, including *amparo* (injunction), a unique provision of Mexican law that allows individuals and groups to seek protection from unconstitutional abuses of the government. "¡Lo vamos a hacer!" ("Let's do it!"), someone finally shouted.

A man named Isaias then stood up and asked permission to speak. Hardly pausing, he launched into a partly handwritten, partly improvised, thoroughly firebrand manifesto criticizing the authorities of the CFE, the government, and politicians of all levels, as "*antipatrióticos*" (sell-outs, traitors) doing dirty business with foreigners, heaping abuses on the peoples of the isthmus. Here is a taste of it:

> The Mexican government doesn't follow or recognize the international treaties because the *gachupines* [Spaniards] are giving them money hand over fist, starting with the secretary of the Interior, who gives them concessions, permission, and authorizations that streamline the whole process. They jump as quickly as the Spaniards want them to. They're

> mad, because they've come to loot us, and we've taken the time we need as a community to analyze our situation. Nowadays governments are used by violent capital that buy the wills of authorities who then threaten or do not hear what the *compañeros* [community, lit. comrades] tell them about their needs. They assault, deceive, and corrupt the people. These projects mean the dispossession and destruction of our environment, flora and fauna, all with the complicity of the federal government and the municipalities too.

Isaias switched into Zapotec, shouting, "We won't be misled mules, each animal running in its own direction," provoking widespread laughter, whoops, and hollers of recognition: "¡Palero! ¡Palero! ¡Somos Paleros!" ("Leader! Leader! We are leaders!"). And, finally, bringing it home, he offered a proposal: "Either we have a community wind park here or no park at all."

The hatred of the CFE runs deep throughout the isthmus. As elsewhere, so many of the desired conveniences of modern life (artificial light, televisions, air-conditioning) make people dependent on those who provide electricity. Understanding the depth of negative affect requires thinking in terms of the clientelist political and economic relations that still predominate in this part of Mexico. In the logic of *caciquismo*, or "boss politics," for example, one could at least expect some top-down redistribution of resources if one worked loyally for the *cacique*'s network (Knight and Pansters 2006). The political party networks, too, offer ways of translating the available power of labor into comparatively scarce currency. But the CFE only exchanged electricity for currency. It only accepted the form of value that was already in such short supply. The CFE was thus a deceiver, we heard again and again. It brought light, promising progress, mobility, and modernity, and then made that progress contingent upon further impoverishment, blacking out dreams, further condemning the people to hopeless marginality.

Squatter Grid

González, Oceransky, and others in the *asamblea* had begun planning legal strategy long before the CFE actually turned them away. We accompanied González and Oceransky to Oaxaca City to consult with an indigenous law specialist at the Oaxacan Ministry for Indigenous Affairs, where various legal scenarios were charted, assessed, erased, and rethought. In the end, the legal adviser was convinced that a complaint focused on being denied access to infrastructure was weaker than one focused on the subversion of residents' constitutional right to use their land the way they saw fit. An *amparo* was the right strategy, he assured

everyone at the table: "It's faster, it'll put pressure on the CFE to deal with you. *El amparo tiene mas cajones* [An *amparo* has more balls]."

The legal argument mounted by the *asamblea* pivoted on the fact that the CFE had approached Ixtepec's *bienes comunales* with a request to *study the possibility* of building a new substation—reputedly the largest in Latin America—but it *never contracted* to do the actual construction. While the viability study was approved by the *comuneros*, who believed that it might generate jobs, the legal complaint maintained that the CFE never shared the study results with the community. More damning still was the fact that despite having no contract, and not having formally expropriated the forty-two hectares of land on which the substation would sit, the CFE went ahead and built it anyway. This might seem like a startling oversight on the part of the CFE, but it occurred at a time when government agencies and their corporate partners in wind development seemed generally uninformed about, or simply impatient with, *bienes comunales* decision-making procedures. Thus the legal argument being leveled against the CFE claimed that this was a case of exploitation and theft (*despojo*) on two grounds. First, the illegal occupation of *comuna* land by the substation and, second, the CFE's refusal to allow competitive access to the substation tenders.

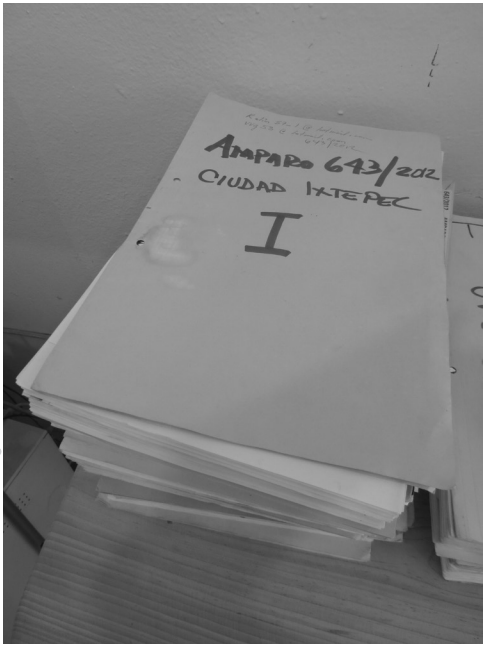

Figure 2 Manila folder holding the documents for the Ixtepec *amparo* (injunction). Photograph by Dominic Boyer

The next week brought an important legal victory for Yansa Ixtepec. A judge in Salina Cruz issued an order of suspension to the CFE, demanding that the tender process cease while the evidence for the community's *amparo* claim was assessed. This was the first judicial injunction ever issued concerning a wind park in Mexico, and it did not go unnoticed by the Oaxacan wind industry. We had coffee with a senior manager of one of the major Spanish wind development companies about a week later; he launched into an unsolicited tirade against Yansa, telling us that Yansa was "ripping people off" since its numbers did not make sense—"How can they offer people 50 percent of their profits from electricity sales when the market rate in the isthmus is closer to 2 percent? Something is very fishy about that."

What happened next, or rather what did not happen, was a lesson for us in the

parastatal power of the CFE. It simply ignored the judge's suspension order and proceeded with its tender process. González and Oceransky attended a meeting at the CFE in Mexico City in which the several companies that had been allowed to bid in the tender presented their business plans. At the beginning of the meeting, González stood up and waved a copy of the judge's suspension order saying that the tender could not proceed. But he was told by the presiding senior official that the CFE had not been informed of any suspension order and that it would certainly not accept a hand-delivered document from him.

On this very same day, far away in the isthmus, President Calderón helicoptered into the carefully orchestrated inauguration of the Piedra Larga wind park. At the end of his speech Calderón returned to the sky, having said nothing at all about the possibility of community wind power.

Impasse

Through an alchemy of pressures (judicial and legal), the CFE finally responded to the *amparo*, and the following year, in March 2013, canceled its tender. The CFE gave no explanation, admitted no wrongdoing, suggested no reconciliation. It was still unclear who would eventually get those last precious two hundred megawatts of access to the Ixtepec substation. When we met in Mexico City with one of the lawyers working on the case, he explained that the CFE's response "has been nothing really": "I think they are scared of touching the human rights issue." Indeed, the image of the CFE occupying indigenous land with its squatter grid was powerful and worrisome, especially when coupled with the fact that those same indigenous farmers were being barred from fully participating in the economic windfall of the parks that continued to be erected across the isthmus.

Later that summer, Vásquez, González and Oceransky remained optimistic that some sort of political resolution would be found. Oceransky recalled that there had been informal talk early on of granting Ixtepec a special exemption for a community park. Even if it were only in gestural form, it would still be a way of bringing Mexico's indigenous communities more substantially into the process of renewable energy development. Officials in the Ministry of Energy (Secretaría de Energía, or SENER), we had found, were somewhat sympathetic to the community-owned park and shared their own (quiet) doubts about how wind development had been unfolding in the isthmus, particularly in the wake of the spectacular failure of the Mareña Renovables wind project (Howe, Boyer, and Barrera 2015).

Time will tell. When we left Mexico in July 2013, the *amparo* was not yet resolved, although optimism about a positive judgment remained. Speaking with González in June 2014, with the case still unresolved, he assured us, "One more month. There's no turning back." As of this writing (August 2015), the *amparo* continues to be undecided. The future of wind power in Ixtepec remains unknown, brightened by hope, shadowed by doubt.

Conclusion

What we have sought to draw attention to in this article are the ways in which existing infrastructures of energy, political power, and capital resist the more revolutionary ambitions of renewable energy. Programs to alleviate climate change that depend on models like *autoabastecimiento*—favoring the interests of transnational capital and translocal governance over local interests and autonomy—can perversely pit marginalized political subjects against the climate remediation efforts that they otherwise say they support. This is by no means inevitable, as architects of energy transition like Hermann Scheer (2004) have argued at length. Indeed, for Scheer, the shorter supply chains of solar- and wind-derived electricity actually favor local political sovereignty and autonomy because they destabilize the translocal infrastructures and necessities of grid-based modernity (ibid.: 89).

Still, the complex supply chains and grids that Scheer critiques are emblematic of the challenges that lay ahead in imagining and enacting new energetic and political systems. Global flows of value, energy, and power reinforce one another, buttressed by intricate legal regimes, national and international, which are in turn only slowly becoming informed by scientific diagnostics of climate and ecology (Edwards 2010; Hulme 2009). Ornate webs of policy, infrastructure, and governance both actively enable climate change and actively resist energy transition, especially when those policies presume that the fossil fuel industry will facilitate that change. Even when states adopt bold energy transition targets, as Mexico has done, the methods of transition can turn out to be deeply problematic. The conditions of the Anthropocene, and the relative novelty of renewable energy forms, which continue to grow and transform, demonstrate the experimental plasticity of our era. And while renewable energy development and climate change mitigation are most commonly left in the hands of engineers, economists, climate scientists, and politicians, we might do better to think of energy transition and a decarbonized climate as problems that necessitate broader and more inclusive conversation

and experimentation. We need to respect not just northern elites but also the creative experimental energies emerging in the global South, particularly in places where other extractivist curses have run rampant.

The potential of projects such as Ixtepec is multiple, combining qualities of social justice with sustainable energy production and sovereignty with climate mitigation; these experimental forms point toward new energy futures that are equal parts remedy *for* the climate and *against* histories of disenfranchisement. Thus the case of Ixtepec is not simply indicative of the future of Mexican energy and statecraft but rather offers a new imaginary of wind power and sustainability. While wealthy countries have been able to mount the capital investment and state subsidies required for utility-scale wind power generation, economic conditions have made this largely impossible in developing nations, even relatively prosperous ones such as Mexico. Cases such as Ixtepec, whether successes or failures, help us to think collectively through some of the potential pitfalls, missed opportunities, and feelings of betrayal, which will likely result if the renewables revolution turns out to be more of the same. In a more positive light, community-owned wind parks (and other renewable projects) might inspire greater investment in renewable energy in Mexico and elsewhere. When hitherto marginalized populations can see themselves as directly and fairly benefiting from renewable energy projects—as they do in places such as West Texas or Denmark—rather than experiencing low-carbon energy production as a familiar form of land conquest and resource extraction, then we will have discovered more ethical principles and practices than those that have dominated large-scale energy production over the past few centuries.

And if the Yansa Ixtepec project is ultimately thwarted, we might ask: What does it mean for a country to be a global leader in clean energy development when that development is only tangentially concerned with the interests, hopes, and worldviews of the people in places where resources reside? Such a course toward "sustainability" is perhaps missing one of its greatest opportunities for positive social transformation along the way. Rather than a politics that manages new energy forms, what if we sought energy forms that generate new politics?

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Cymene Howe is an associate professor of anthropology at Rice University. She is the author of *Intimate Activism* (2013) and *Ecologics: Wind and Power in the Anthropocene* (forthcoming)—a collaborative, multimedia duograph that analyzes the contingent social and material formations of renewable energy. Her theoretical interests center on the overlapping conversations between feminist and queer theory, materialisms, multispecies ethnography, ethics, and imaginaries of the future in the Anthropocene.

Dominic Boyer is a professor of anthropology at Rice University and founding director of the Center for Energy and Environmental Research in the Human Sciences. His most recent books are *The Life Informatic* (2013) and the coedited volume *Theory Can Be More than It Used to Be* (2015). His next book project, a collaborative multimedia duograph with Cymene Howe, explores the energopolitical complexities of wind power development in southern Mexico.

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