## Joint Conclusion to Wind and Power in the Anthropocene CYMENE HOWE AND DOMINIC BOYER

## Aeolian Politics, Aeolian Futures

We went to the Isthmus of Tehuantepec as ardent supporters of renewable energy transition, and we left with that conviction intact. Wind power (alongside solar power, tidal power, geothermal power, and biofuels) has an important role to play in reducing greenhouse gas emissions and decarbonizing electricity generation. But we also returned to the United States with a more skeptical view of renewable energy's capacity to guarantee salvation from climate change let alone the Anthropocene. Renewable energy has a necessary but insufficient role to play in a process that will amount to a refashioning of the civilization(s) that brought us to our present ecological and political conditions. What our field research on Mexico's aeolian politics and the ecosystemic limits of wind power taught us above all is that it is all too easy for renewable energy development to occur with little or no social, political, or economic transition attached to it. It is both possible and common to build wind parks firmly within a model of resource extraction that is typical of global fossil fuel and mining industries. We have offered extensive documentation of such wind development in our Mareña (Ecologics) and La Ventosa (Energopolitics) case studies—where attempts to capture the wind resulted in failures, both human and other than human. We have also shown in the case of Ixtepec (Energopolitics) that other development models exist, even if they are being actively resisted in Mexico. Where human desires for energy are not in balance with their ecosystemic context, as we see across the Ecologics volume, there is little hope of remediating climates either locally or globally.

Taken together, the three case studies we have followed in *Energopolitics* and *Ecologics* demonstrate the turbulence surrounding renewable energy as the world awakens to the Anthropocene. They tell stories that are specific to Mexico and yet also exceed national boundaries. Carbon politics, finance capital, global industry, consumerism, and a lack of environmental protections have laid deep infrastructural grooves and have largely drawn aeolian politics into their orbits. Thus, the win-win-win visions of green financiers, entrepreneurs, and developers who promise that climate change can be reversed while maintaining everything else about the modern world, especially economic growth and a positive return on investment to shareholders, show a stubborn reluctance to abandon the structural deficits of carbon-based modernity. Those imaginaries are shared to a great extent by Mexican and Oaxacan politicians and technocrats who, steeped in neoliberal certainties and petropolitical anxieties, yearn for foreign direct investment to extend and improve the biopolitical functions of governance in the form of health, security, and prosperity. Some even believe that wind power can help to fulfill delayed or abandoned plans to bring, at long last, the isthmus into the nation, not as a repartimiento vassal but as vigorous organ of the mestizaje national body. Local leaders and asambleas, elected and unelected, are likewise drawn toward the biggest influx of international attention and activity the isthmus has experienced since the mid-nineteenth century. Some fight for local or indigenous autonomy and sovereignty against the encroachment of megaproyectos, others pursue windblown wealth to further dreams of better jobs for their children or the accumulation of capital and leverage or for the opportunity to extend and deepen their networks of influence. It is not only in Mexico that dreams of aeolian futures are paradoxical; what are heavenly images for some are nightmares for others.

This is only to speak of the anthropolitical dimension of aeolian politics. We must also consider the Anthropocene trajectories of birds and bats and fish, the machinic life of turbines, the grid, and trucks, the unruly howl of el norte, and the gentle breezes of binisá. Aeolian politics is always already more than human even if the ecological interdependency of human and nonhuman potentials is largely ignored in standard treatments of wind power. It is for this reason that we have created a duograph to offer not only an ethnographic division of labor in its coverage of the three studies but also an analytic division of labor that allows us to pursue, with better depth and peripheral vision, both the mapping of anthropolitical enablement and the mesh of human-nonhuman relationality that is often allowed to drift into the background of reckoning with the Anthropocene. Questions of wind and power circle each other in the Isthmus of Tehuantepec—How can the fierce northern winds be harnessed? With what machines? To what end? Benefitting whom? Displacing whom? Earning what? Killing what? For how long? And with what consequences? We have likewise sought to let the analytics of wind and power speak to each other in this duograph, probing their potential to remake and unmake the Anthropocene. Enablement is always relational: some complex of forces, things, and events begetting others. Relations, for the same reason, always enable. The riddle of the Anthropocene is what mesh of relations and actions will allow us to disable the reproduction of the present while being present in the production of a future. For those who wish to solve that riddle, we must attend to both human politics and all the other relations and forces that make those politics possible.

An earlier version of our duograph was titled Winds of Desire because everywhere we turned in Mexico, we found people wishing for the wind to deliver something: money, electricity, influence, legitimacy, prosperity, development, power. At times, desire cloaked itself in mathematics, rationality, and common sense. At other times, it reveled in naked hallucination. Those who desired were rarely satisfied with what the wind had already delivered to them. What desire always accomplishes best is the propagation of more desire. Here, at the end of a project that has been nearly a decade in the making, we are asking ourselves what it is that we wish from wind power. It turns out that our object of desire is also elusive and receding. Still, we are drawn toward it: we want better aeolian politics oriented toward achieving better aeolian futures.

Our final report to the National Science Foundation listed the following findings and recommendations based on our research:

The field research for NSF #1127246 yielded several important findings and recommendations that will contribute to more positive development outcomes in Mexican energy transition in the future. (1) The dominant development model prioritizes the interests of international investors and developers and local Isthmus political elites over other stakeholder groups, especially the regional government and non-elite Isthmus residents. (2) The dominant development model has reinforced hierarchy and inequality in Isthmus communities through unequal distribution of new resources like land-rents. (3) The development model has generated significant polarization in Isthmus communities regarding wind parks and undermined trust in government and industry. (4) The financial benefits from land rents are currently primarily being directed toward luxury consumption by elites. (5) A majority of Isthmus residents appear to favor wind power development were its financial benefits to be more equally distributed. (6) Project findings suggest that the Mexican government needs to reevaluate its development model to guarantee (a) that entire communities and not simply elites are involved in project design and implementation, (b) that mechanisms be developed to guarantee that wind power development yields consistent and significant public benefits, and (c) that regional governments receive sufficient federal funds to develop a regulatory agency with the authority to guarantee that wind power development is truly transparent and beneficial to all stakeholder groups.

To put this in less muted terms, in our view, there will be no "renewable energy transition" worth having without a more holistic reimagination of relations in which we avoid simply greening the predatory and accumulative enterprises of modern statecraft and capitalism. In this respect, the record of Mexican wind development thus far does not inspire much confidence. The model of wind development that currently dominates the isthmus has been very effective at building wind parks, but it has done almost nothing to disrupt the toxic kinds of relatedness that made it necessary to build wind parks in the first place. It has left wind power in the thrall of finance capital, state biopolitics, and energopolitics; parastatal utilities and infrastructure; PRIISMO, caciquismo, consumerism, and many other -isms besides. The case of Mareña Renovables (in Ecologics) came to absorb and reflect all these conditions and in so doing was stalled out of existence. In failing to account for local histories and imagined futures, and in repudiating local worries about environmental harm, Mareña's potential to provide climatological remediation and reduce greenhouse gas emissions was drowned among the fish. With the Yansa-Ixtepec project (in *Energopolitics*), we do find a scrappy DIY prototype for a better aeolian future, one that seeks to harness windgenerated electricity to help a rural farming collective to better guarantee their own autonomy and futurity while still contributing to the global cause of decarbonization. Yansa-Ixtepec has flaws to be sure—its benefits will not extend far beyond the collective, and it requires a grid and a failing parastatal electrical utility to pay its rents—but if the project is ultimately thwarted, Mexico will miss its best chance to connect the heady ambition to be a global leader in clean energy development with the interests, hopes, and worldviews of people living in places where the wind is strongest. In the end, we need not just new energy sources to unmake the Anthropocene, we need to put those new energy sources in the service of creating politics and ecologics that do not repeat the expenditures, inequalities, and exclusions of the past.

We will conclude with an appeal for more collaborative anthropology in every sense of the term. We need more anthropologists working together and working with other humans and nonhumans on the problems that matter most in this world. Those problems, like energy transition, are complex, massively scaled, and very often ill suited to critical and activist engagement by individual researchers. As scholars, we will better understand our present dilemmas and possible paths forward if we work together, whenever possible drawing on varying but complementary skills and forms of expertise in the pursuit of responses. As beings living on a damaged planet, what we already understand is that none of us can exit the Anthropocene on our own. The hyperindividualism of the past three decades, the capitalist empire building of the past two hundred years, the Northern privilege of the past five centuries, the monotheistic patriarchy of the past two thousand years, the agrilogistics of the past ten millennia—all of this, everything, will have to be remade if a global humanity is going to be reborn that will not be actively, constantly destroying its lifeworld and the lifeworld of the majority of the earth's species. This project will be utopian in the sense that it will have to make a world that has not yet existed. It will be revolutionary in the sense that it will not be accomplished by technology, or markets, or violence, or anthropocentrism, or any of the other behaviors and attitudes that brought us here in the first place. It will be a project accomplished by humans who can accept their own diminishment of importance and entitlement relative to their nonhuman neighbors and by those who are willing to work collaboratively to restabilize the vital systems of geos and bios on this planet. These are the politics, aeolian and otherwise, to which we should commit ourselves, these are the futures worth having.