

## 4. Distrito Federal

October 17, 2012. The caravan ambles confidently down Tres Picos Boulevard in Polanco, passing none other than Hegel Street, the megaphones on the white, bruised, spray-painted CNTE truck enjoying a rare moment of silence after hours of thundering criticism and demands throughout the heart of Mexico City. There have already been stops in front of the offices of the Inter-American Development Bank, the Mitsubishi Corporation, and Coca-Cola FEMSA. All the leading activists against the istmeño wind parks are in the procession: Carlos Beas from UCIZONI, Rodrigo Peñaloza from APIIDTT, Alejandro López López and Mariano López Gómez from Juchitán, and Isaúl Celaya from San Dionisio del Mar. Our friend Sergio from Yansa is there too (see chapter 1); although obviously not opposed to wind power, he sees a common enemy in the corporate autoabastecimiento projects and thus supports the antieólico resistance quietly, on the side. In addition there are dozens of other istmeños representing the ikojts pueblos of San Dionisio and San Mateo del Mar and from the binnizá communities of Álvaro Obregón, Juchitán, Santa María Xadani, and Unión Hidalgo.

Once we reach the front of the Danish Embassy, an unremarkable building in the slate gray of northern European skies, the San Mateans and APIIDTT hastily unfurl their “No al Proyecto Eólico” banners to either side of the entrance. Beas, in a dark suit and purple shirt, stalks the background, scowling, positioning his photographers and videographer. Others rush to affix smaller handwritten protest signs to the embassy, and loudspeakers roar to life as a series of speakers inveigh against wind development in the isthmus and call upon the Danes to show themselves to receive the caravan’s documents



FIGURE 4.1. Protest caravan against Mareña Renovables, Mexico City

of protest against the participation of Vestas, a Danish firm, in the Mareña Renovables project.<sup>1</sup>

Some fifteen minutes later, a willowy representative of the Danish government emerges, and those gathered press in toward him. The tension that has crackled at other stops is less intense in this encounter. Rodrigo, clad in a periwinkle Che Guevara T-shirt, is the bellwether; at times he tenses his jaw and shouts at the representatives who are sent out to listen to their demands. When they do not offer their names, he raises his voice to condemn the lack of respect being shown to the communities of the isthmus. But perhaps placated somewhat by this representative's air of Scandinavian formality and politeness, Rodrigo speaks remarkably quietly, and his hand gestures are economical. The Dane says little but listens quietly and attentively to Isaúl's narration of the threat that the project poses to the community and of the death threats and attacks that have been personally directed toward him by the project's supporters. The Dane thanks them for their statements, receives the documents from Rodrigo with a nod, and disappears back into the embassy.

As the caravan begins to reassemble and to roll on toward lunch, we hover near the journalists who have moved in from the margins to get statements, listening to their dialogues. We know some of them already from other events in Oaxaca City and the isthmus; among them is Rosa Rojas, who has written an excellent series on wind energy for *La Jornada*. But there

are new figures as well, even including a few representatives of the international press. A tall man who speaks Spanish with an American accent draws our attention; he is Laurence Iliff, who covers Mexican energy for Dow Jones and the *Wall Street Journal*. We chat with him for a few minutes, and somehow it comes out that he grew up in Santa Cruz, California, and went to the same high school as Cymene. He says that he has been following the Mareña story for a while now and invites us to lunch to tell him more about our research in the isthmus.

### Electric Crisis

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It is several months before we are back in Mexico City again in May 2013, and by then most of the investors in Mareña have quietly written off their investments in the troubled project. Postmortem analyses from well-placed insiders are circulating though it is still several months before the official cancellation of the project in January 2014. Nevertheless, we take Laurence up on his offer and meet him at Milo's, an upscale bistro in Condesa, one of his favorite haunts in the neighborhood. A long-term foreign correspondent, Laurence has covered virtually every major energy story in Mexico over the past decade and has interviewed key actors throughout the hierarchy of Mexican energy administration, up to and including President Vicente Fox. Though he specializes in coverage of Mexico's parastatal petroleum company, Pemex, Laurence is an interested observer of all aspects of Mexican energy. He finds the conflict over wind development intriguing and says he does not fully grasp where the depth of dissatisfaction is coming from.

"I mean green energy is a good thing, right? Aren't these communities getting anything from these projects?"

He nods as we explain the low land rents; they are no surprise to him.

To the accusations of corruption, payoffs to mayors, and so on, he laughs. "That's how they built Cancún too." And then, more seriously, he adds, "The kickback culture in Mexico is pretty well developed. Ten percent is standard on most big projects. Raúl Salinas, Carlos's brother, used to be known as 'Mr. Ten Percent.'"<sup>2</sup>

While talking through the complex interests and intrigues of isthmus wind development, our conversation keeps circling back toward the carbon center of gravity in Mexican energopolitics. In particular, we find ourselves discussing Mexican president Enrique Peña Nieto's much-anticipated energy reform, which promises controversial changes to the development of

Mexico's subsoil fossil fuel resources. It is a huge political issue in Mexico at the moment and one that is attracting considerable attention in the international press not to mention the hungry eyes of oil and gas exploration and services companies across the world.<sup>3</sup> The prospect of privatizing even part of the petroleum exploration and development on Mexican territory would be a historic event and a terrific windfall for the industry globally. Only fifty-seven wells have been drilled on the Mexican side of the Gulf of Mexico as opposed to the sixteen hundred wells on the US side that yielded twenty-six billion barrels by 2014.<sup>4</sup> Add to that the potential for new enhanced oil-recovery services to boost the flagging production of Mexico's existing fields and the possibility of new pipelines bringing liquid natural gas south from rich shale plays in Texas and Oklahoma. In coverage of the reform, talk of Pemex's inefficiency and technological inability to develop Mexico's petroleum resources is used to justify a new teleology wherein eighty years of petronationalism finally cracks open, revealing mouthwatering profit opportunities to global capital.

The prospect of energy reform brings together this volume's analytics of energopolitics, capital, and biopolitics in a particularly vivid way. Although energy development is often interpreted, including by anthropologists,<sup>5</sup> as a phenomenon driven foremost by capital's relentless search to propagate itself, to call to life its machinic apparatus of productivity, the domain of the biopolitical is also never far removed from discussions of Mexican petroleum.<sup>6</sup> This is not simply because subsoil sovereignty was a critical infrastructure of post-Cárdenas Mexican nationalism; in the neoliberal era proponents of liberalized energy production argued that it would strengthen the national economy through new job-generating foreign investment. Capital, biopower, and energopower are imagined to stream fluidly together to stabilize and modernize Mexico's "carbon democracy." We have heard it before: win-win-win. And where better to examine this confluence than in Mexico City, where the sovereign power and governmental apparatus of the nation-state are most pervasively enabled by the concentration of capital, political institutions, and media?

This chapter examines the aeolian politics of Mexico City, but it will quickly become evident that these politics seem dematerialized, at least in comparison to other chapters in this volume. There is less wind and soil here than elsewhere—protests, yes, but no blockades; expert talk and knowledge abound, but material infrastructures of energetic and political enablement are often less visible than one would wish. This is in part a matter of research methods that, mostly of necessity, focused more on formal interviews with

busy elites in relatively austere work environments. But it also reflects the magnitude of the epistemic, cultural, and spatial distance of Mexico City from the Isthmus of Tehuantepec (which, in local chilango discourse, was undifferentiated from Oaxaca). Aeolian politics were normally treated as technical, financial, and administrative problems and solutions in DF; it was routinely striking to us how little intimate contact and knowledge our interlocutors had with and of the isthmus, a place whose purported cultural, social, and racial differences were objects of fascination and derision. This is the political terroir of the administrative capital of “Mexican” wind power.

Mexico City is more than just a capital that administrates some preexisting set of people, places, and powers; the city is itself a massive machine for the realization of “Mexico,” a boiler room that absorbs all available powers of labor, mind, and materials—resources that are drawn from across the nation-state and from far beyond—seeking to orchestrate and export nation-scale imaginations like “national economy” and “national culture.” It is surely true that all capital cities undertake this coordinating and circulatory activity to some extent and that urban elite parochialism greases the engines of universality across the world. But in Mexico City in the year 2013, the artifice of Mexican-ness was acutely visible. As drug cartels and their war machines challenged sovereign lands and borders, creating biopolitical and necropolitical administrations of their own,<sup>7</sup> and as uprisings in southern states like Chiapas, Oaxaca, Guerrero, and Michoacán spawned new autonomous zones beyond the control of police and army, at times it seemed as though it was only in DF, and then truly only in certain neighborhoods like Polanco and Condesa, that the elite neoliberal imagination of Mexico as globalizing nation-state was truly secure.

Laurence helpfully draws our attention away from the much-mediated fragility of Mexican rule of law and state sovereignty and toward the humming engine of the Mexican petrostate, which has for decades now helped to give shape and substance to the nation as a whole. Laurence is not unironic in his diagnostics of Mexican petro-statecraft and clearly enjoys poking fun at Pemex (for their poor safety record and lack of familiarity in advanced exploration and production techniques), at SENER (for “sometimes just making things up” in their energy analyses), and at CFE (for their generally dilapidated state, epitomized by their building on Río Ródano, “where it looks like the air conditioners are going to fall out of the windows on top of you”).<sup>8</sup> But, on the whole, he seems to feel that the Mexican petrostate, even absent an energy reform, is more robust than it is often given credit for in the international press.

“Mexico’s not in such a bad position,” he says. “It’s true that production has dropped a lot in the past decade, but it’s leveled off now at around 2.6 million barrels per day. That’s still more than Venezuela and Brazil.” He explains that in Mexico, “even though the Cantarell field has dropped from two million to 400,000 barrels per day, the KMZ field off Campeche is now up to 850,000, and the most important thing is that the oil is super cheap to produce, only three dollars per barrel, meaning that with these high oil prices, they are raking in huge profits. Even with the production drop, 2011 was Pemex’s most profitable year on record. And, you know, most people, including me sometimes,” he laughs, “like to hammer on Pemex and CFE, but there’s electricity in most of the country, and when it goes down, it gets repaired pretty quickly. It’s not always super clean and nice, but it works, and it doesn’t go out of business like Enron.”

More than this, Laurence emphasizes, Pemex brings in huge revenue to support the government. “Pemex has \$160 billion in sales a year and is able to turn a \$50 or \$60 billion profit and gives 90 percent of that back to the government in the form of taxes. Pemex provides 35 or 40 percent of the revenue going into the federal government.<sup>9</sup> And then if [the government] needs cash quickly, they’ll force Pemex to float bonds in New York so that they can demand six months of tax payments up front. Basically, Pemex is like a bank for the government. They won’t starve them, but they keep them very skinny.”

He notes that the Mexican political elite are also trying to think past the petrostate. Extracting such a high percentage of Pemex’s profits has hamstrung the parastatal in terms of being able to equip themselves technologically to undertake more complicated and risky forms of oil production such as deep-sea exploration and enhanced oil recovery, which are becoming increasingly routine across the world as older fields become exhausted. Moreover, petro-statecraft is vulnerable to market shifts; production declines are one thing, but if the oil market were really to bottom out, billions of dollars would fail to appear in the treasury, and a state already struggling to meet its responsibilities to its citizens would find itself in dire straits.<sup>10</sup>

Laurence also confirms that climate change is increasingly becoming a theme in Mexican politics, “particularly for Calderón’s government; everyone I interviewed there *loved* to talk about renewables.” Laurence thinks, however, that the government’s exit from fossil dependency will not run through a massive renewables campaign but rather through the gradual displacement of an oil-driven economy by its manufacturing sector. “Manufacturing is doing really well here now,” he says. “The car industry alone probably brings twice as many dollars into the economy as Pemex does when you look at

all the investment, the jobs, and taxes. It has a really good ripple effect. In Puebla, you know, it's all about Volkswagen. And the electronics industry is doing well too. These industries are relocating from China to Mexico because of the lower transport costs for getting goods to the North. . . . It's just a more sustainable situation than relying so heavily on Pemex."

But this diagnosis brings Laurence to what he views as the real energy crisis looming in Mexico. It concerns not oil so much as electricity. "Mexico really needs to do something about electricity. If you are going to build up the manufacturing sector, you need cheap energy to make it competitive, and right now, electricity rates for businesses are very high in comparison to other countries. The way electricity rates work in Mexico is that for basic electricity, just lights and very basic appliances, there is an extraordinary level of subsidy, 80 or 90 percent." He reiterates, "Basic electricity is *very* cheap in Mexico. But then, to offset that subsidy, higher-end domestic use and commercial use gets very expensive.<sup>11</sup> Basically, CFE relies on overcharging their commercial customers to undercharge their residential customers. But they are losing commercial customers in droves now, which means fewer and fewer people to pay for their subsidies."

The aspiration to provide cheap basic electricity to the entire Mexican population maintained the Keynesian-revolutionary spirit of Cardenismo. A year before signing the well-known decree to nationalize Mexican oil production in 1938, President Cárdenas founded the Comisión Federal de Electricidad with the purpose of "organizing and directing a national system for electric-power generation, transmission, and distribution, based on technical and economic principles, on a non-profit basis, for the purpose of obtaining the greatest possible output at minimum cost, for the benefit of general interest."<sup>12</sup>

Cárdenas did not, however, act to nationalize the private, foreign-owned electricity companies that had been operating a variety of regional power systems in Mexico, with uneven technical success, since the Porfiriato.<sup>13</sup> The first decades of CFE focused instead on expanding grid and power plant infrastructure in order to bring electricity to the many parts of Mexico that the foreign companies had neglected. These companies, particularly Mexican Light and Power (MexLight) and the American and Foreign Power Company (AFPC), were allowed to operate until 1960, when President López Mateos finally decreed the full nationalization of electricity. However, in the 1940s and 1950s, the Mexican government set electricity tariffs low so as to reduce the domestic costs of consumption, a development-oriented policy that led to significant problems for the profitability of the companies.<sup>14</sup>

Mid-twentieth-century *PRI*ismo sought to harness both electricity and capital in service of its populist biopolitics of modernization and development. Yet it created enduring tensions between corporate industrial interests and *CFE* in terms of priorities in the provisioning of electricity.

Laurence recalls that in the old days, “*CFE* would just kick companies off the grid with no warning when they were running low on electricity supply.” And yet *CFE* was still regarded as an exemplary utility next to the much-maligned *Luz y Fuerza*, which had been created from *MexLight*’s operations servicing Mexico City and surrounding areas. It seems that *PRI*ista corporatism and a strong and activist union, the *SME*, operated largely outside the control of the rest of the governmental apparatus.

Laurence laughs, saying, “*Luz y Fuerza* was a black hole of corruption. In Mexico City maybe 35 percent of the electricity was being stolen, and the employees were totally complicit in it.<sup>15</sup> I lived in a *Luz y Fuerza* neighborhood, and the installers would come around and tell you how much you could bribe them so that your meter wouldn’t run.” Years of heavy operational losses, emergency payments from the federal government to keep the lights on, and constant conflict with the *SME* resolved to the spectacular conclusion of President Calderón sending out a thousand federal riot police to shut down *Luz y Fuerza* on October 10, 2009, transferring all operations to *CFE*, finally realizing the Cardenista program of a unified national electricity grid some seventy years after the fact.<sup>16</sup>

The crucial Salinas-era amendment (1992) of the *Ley del Servicio Público de Energía Eléctrica* (Public Electricity Service Law, or *LSPEE*)—which allowed for private sector participation in power generation, including cogeneration and self-supply programs (see chapter 2)—was intended to address, at least in part, industrial and commercial concerns about maintaining reliable, affordable electricity service.

As Laurence puts it, “At some point, the big companies were so frustrated with *CFE* that they began investing in their own power-generation projects to guarantee service, to reduce costs.<sup>17</sup> But these are mostly big companies involved in building power plants, companies like *Cemex*. For smaller businesses that don’t have that kind of capital, the electricity costs are still pretty crippling for them.”

The solution? The movement toward decentralized power production seems unlikely to slow down; indeed, Peña Nieto’s energy reform will seek to accelerate it, creating new incentives for independent power production.<sup>18</sup> It also seems unlikely to Laurence that *CFE* will be allowed to remove its subsidies to residential customers anytime soon. It is a sensitive issue, and



CFE lacks the authority to set its own rates; that belongs to the Ministry of Finance and Public Credit, which is famously, according to Laurence, motivated by “political as well as market considerations.” The only real move for CFE is to try to bring costs of electricity generation down and to pass those along to its preferred customers in manufacturing. A carbon-fueled solution beckons, driven by the geography of fuel and the logic of market price.

“I’m pretty sure that LNG [liquid natural gas] is going to be a big part of their plan, Laurence says. “Think of all that cheap gas available now in the US. And Mexico has amazing gas resources too if it could develop them. Mexico uses a lot of LNG already, but it’s importing it from *Nigeria*.” He laughs. “Can you imagine that? So the Mexicans are working as fast they can to build pipelines to bring all that cheap gas across the border down to Mexico.”

An energy correspondent for Bloomberg we later interviewed confirmed Laurence’s sense of things, saying, “When I interviewed the energy minister four years ago, all the talk was about renewables. Then, when natural gas prices started to go down, that completely challenged the economics of their plans. Now the only thing people are talking about is gas.”

The prediction appears to be coming true. Less than two years later, in March 2015, Laurence reported on the first major foreign investment in Pemex’s history. It is a deal with private equity investors BlackRock and First Reserve, who have offered \$900 million for a 45 percent stake in a pipeline project to bring US natural gas to Mexico.<sup>19</sup> It appears to be only the first of many such projects to come.<sup>20</sup>

The chairman and co-CEO of First Reserve is quoted speaking approvingly of how the Mexican energy reform has opened up huge opportunities for international investors in energy infrastructure projects: “If you take pipelines, for example, [all of] Mexico has 10 percent of the natural-gas pipelines that the state of Texas has.”

In 2013, Laurence told us that the electricity crisis probably did not bode well for wind power. “Per kilowatt-hour, wind is still pretty expensive compared to natural gas or coal so I’m sure there are some people over at CFE who are hoping they don’t have to incorporate too much of it.”

## La Comisión

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From our time in the isthmus, we are already aware that CFE’s affects concerning wind power are complex and at least somewhat contradictory (see chapter 1). We are eager to learn more about them during our time in DF.

And, fortuitously, the closed doors and evasiveness we faced in Juchitán are replaced by many representatives who seem more than willing to explain the exigencies of the grid and electricity to us.

We begin in the first of many CFE buildings around Mexico City, this one a modern office complex on the Periférico Sur. We meet with Francisco Díaz and Francisco Barba, both of whom work for the Dirección de Proyectos de Inversión Financiada (Directorate for Financed Investment Projects), focusing on the environmental impacts of CFE's new power plant developments. Interestingly, we talk less about climate change and the impact of different types of energy development on various animal and plant species and more about how wind power impacts the environment of the grid. The Franciscos seem hesitant about wind power, largely because of the problem of *intermitencia* (intermittency).

“OK, the principal problem with this form of energy, la eólica, is that from the perspective of the Administration of Energy, there's a type of energy we call 'baseload' [*energía base*],” Francisco Díaz explains. “Above all, this is thermoelectric energy where you supply it with combustible fuel, and it works just like a motor. It's *muy constante* [very constant]. Geothermal is that way too. But with all other sources, even hydroelectrics, output will depend on the rains of the previous year. So in a dry year, you might not have enough supply to meet demand. It is the same way with las eólicas [the turbines]. You might have a peak supply and an average supply. But those are just numbers. In reality, the supply is constantly fluctuating between highs and lows. And for that reason, in most cases of wind energy, you need to build extra thermoelectric support installations just to guarantee the supply of energy, a constant flow of electricity.”

“Baseload” is a thermoelectric imaginary, one that has coevolved with the fossil- and nuclear-fueled infrastructure we know as “grid.”<sup>21</sup> Baseload thinking naturalizes a situation of endless, constant electrical supply equilibrated to endless constant demand.<sup>22</sup> It gives voice to the energopower of steady thermoelectric generation, feeding a stable, efficient infrastructure of current, all conducted with a capital-centered market imaginary tightly wrapped around it like insulation.<sup>23</sup> This logic does not suffer intermittency lightly; any risk or disturbance of flow is viewed as a threat.<sup>24</sup> Thus, not only in Mexico does one find the perverse argument that there should be more fossil fuel installations for each kilowatt-hour of renewable energy brought onto the grid to guarantee reliability.<sup>25</sup>

We probe deeper, asking about Mexico's ambitious clean electricity targets.

“Yes, well, for the most part,” Díaz says, “this was a political decision of the government, *de alto nivel* [at a high level], and the Ministry of Energy [SENER] defined it. Those of us who work for CFE, it is our job to carry out what SENER tells us. But we’re not in a position to explain to you the logic behind their decision. To be clear, we’re OK with the decision, *nos encanta eso*, [we’re delighted by it], but we can’t explain the reasoning to you.”

They do not sound encantado but rather troubled about the charge that has been given to them.

When we ask about the Kyoto Protocol,<sup>26</sup> they note matter-of-factly that Mexico is among the Annex B countries, which are not required to undertake emissions reduction. They say that only five or six hundred of CFE’s ninety-eight thousand employees work on environmental issues. It is not a central consideration of la comisión’s work because of the existence of the Environmental Ministry, SEMARNAT.

When we ask about how CFE seeks to reconcile local environmental concerns against the global environmental concerns such as climate change, Fernando Barba mentions the small amount of the Mexican population still not served by electricity (less than 2 percent). “Because, as Hernán Cortés once said, our land is like wrinkled paper, there still remain distant communities where it is very difficult to serve them conventionally. And in some cases, solar panels have gone in to guarantee a certain degree of development, to allow them to power their radios and television, even a motor or a refrigerator.”

It sounds as though Barba is about to say that renewable energy has important applications in such outlier cases, but it turns out that his point is exactly the opposite. “And [the people in these communities] they say that they want energy that serves them [constantly], sometimes they protest up to the highest authorities that they want *true* electrification.” Even on the fringes of Mexico, in the areas most in need of development, Barba argues, people will reject renewables in favor of the truth of the grid.

Jesús Ortega works in one of CFE’s oldest buildings, the very one on Río Ródano with the precarious air conditioning units. A half-century ago this was the primary administrative center of CFE; in 1960 it was radiant and festooned with a bright-red banner, seven stories high, celebrating the nationalization of electricity. Its edifice is now predictably more weathered, its interior faded, epitomizing both the resilience and the exhaustedness of Cardenismo. And yet the building brims with activity.

Ortega is a subdirector in Coordinación y Distribución (Coordination and Distribution), which helps ensure that CFE’s clients receive the energy

FIGURE 4.2. CFE  
administrative center,  
1960



they need. He apologizes that his group in Distribution is only tangentially involved in renewables and mostly in the form of solar photovoltaics. Now CFE has plans to extend the grid to all communities of more than fifty people (it used to be one hundred people). For smaller communities, they have tried a pilot plan to set up solar PV (photovoltaic) panels to provide “basic energy.” But, shaking his head, he too relates that *la gente no tiene confianza* (people lack confidence) in this form of energy. They were angered when the PV panels ceased to function and blamed CFE for it. And then there is the question of cost. He estimates that a kilowatt-hour generated by solar energy costs five or six times that of a kilowatt-hour produced by conventional carbon sources. “We’re not in the position to pass those costs along to the consumer as happens in other countries.”

His colleague, Mauricio, drops in, dressed in a dapper tan suit. After listening for a while, he interrupts to say that renewable energy is most certainly “a pillar” of the national energy plan, but it is really part “of the policy of expanding electricity generation and coordinating participation in investments to the expansion of electricity supply.” By this, he is referring to the

temporadas abiertas [open seasons] that CRE and CFE have created to expand private participation in electricity generation.<sup>27</sup> That has led to 1.5 gigawatts of wind power in the isthmus already, and he believes it will go up to four gigawatts when the program is complete. “It brings together the vision of the state with the vision of the *permisionarios* [permit holders].” He cautions that the problem of intermitencia means that it will be impossible to envision an electrical grid focused “one hundred percent” on clean energy. Still, Mexico has renewable resources that should be developed, and he speaks approvingly of the *consciencia social* (social conscience) demonstrated by countries such as Germany, saying that it is sometimes worth the higher cost for clean energy. “The world has to use less hydrocarbons, and that is true for Mexico as well. We’re already a net importer of liquid natural gas.”

Both Jesús and Mauricio agree that we need to speak with people in the Directorate of Planning who assess future demands on the grid and plan extensions and improvements accordingly. A few interviews later, we find ourselves in a boardroom at the new CFE headquarters on Paseo de la Reforma speaking to Ramón Villagómez Altamirano. Maps of the grid and CFE generation plants adorn the walls. Villagomez is extraordinarily kind and generous with us, staying long after the appointed end of the meeting to make sure we understand CFE’s relationship to renewable electricity generation.

Villagómez is worried, above all, about the cost of Calderón’s 2011 law that mandated that Mexico have 35 percent of electricity production coming from nonfossil sources by 2024. “We have to be aligned with these national goals, but it has a huge cost, a *huge* cost,” he says with a certain degree of resignation, “and I want to be clear that these goals are political, not technical. There is no way CFE would have recommended this.”

About 22 percent of Mexico’s electricity capacity comes from hydro-power, and that is considerable; however, only 4.6 percent comes from all other renewable resources combined (including nuclear power). A radical expansion of wind power is one scenario, and he says that there are three areas in Mexico with excellent technical wind capacity: Baja, Tamaulipas, and of course the Isthmus of Tehuantepec.

“But even if we developed all of that wind capacity,” he says, “even with our best efforts, we couldn’t meet these targets. There are natural restrictions.” He says that CFE has explored other scenarios, and they feel that the only way to conform to these political goals would be to build several new nuclear power plants. But “in our country, as in most countries in the world, people reject nuclear energy. There is a lot of seismic activity, and we’d have huge problems if we decided to build a nuclear plant near a big city.”

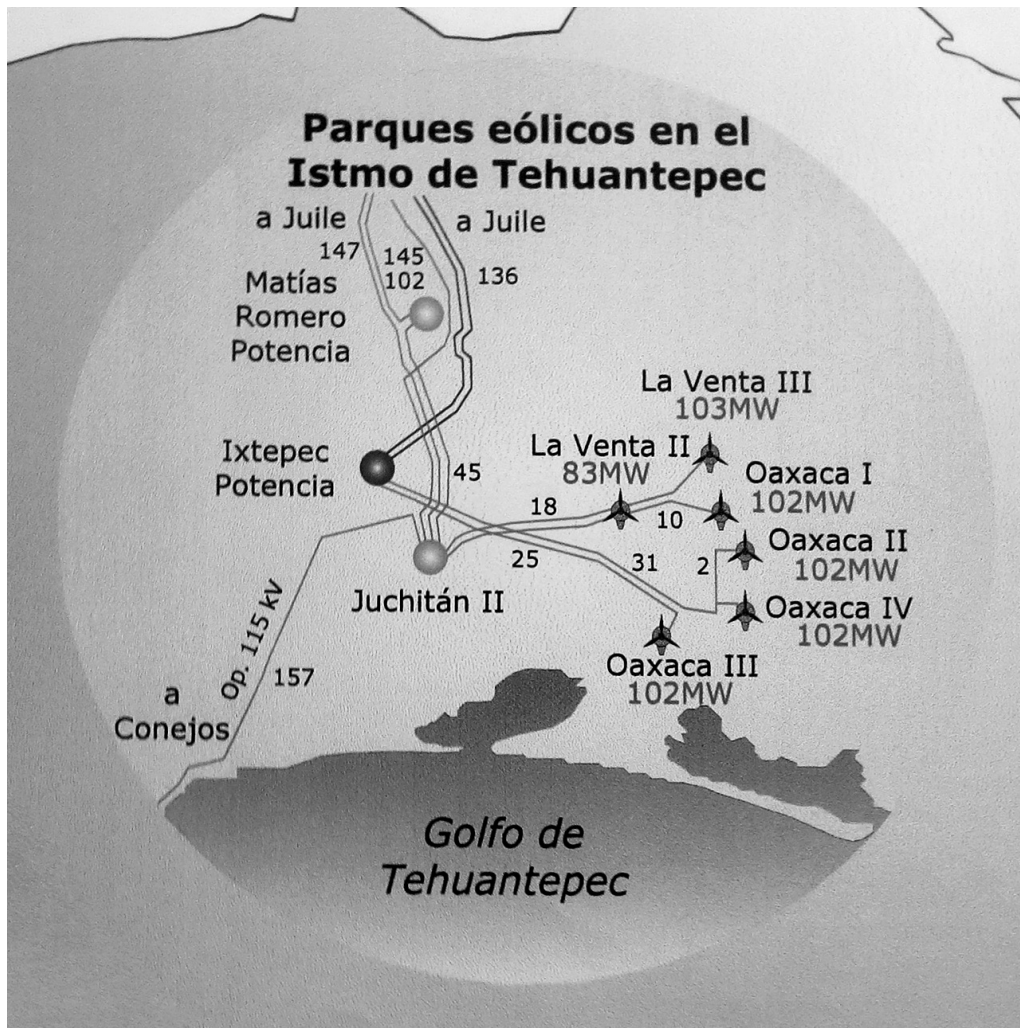


FIGURE 4.3. Map of the istmeño grid, CFE

According to CFE's calculations, meeting the obligations of the 2011 law via wind power alone would cost an extra \$3.79 billion annually and \$2.4 billion even if nuclear energy were included. Villagómez says that they have thus concluded that "the plan is unrealistic and not economically viable" and that they are lobbying, together with SENER, for a change to this legislation in Congress, aiming at a more gradual transition, with 2050 as the target. They are hopeful that President Peña Nieto will be more receptive to this message than President Calderón was.<sup>28</sup>

But, we ask, does CFE feel threatened by the energy reform, which seems aimed toward further advancing the private-public partnership model and opening the possibility of allowing the private sector to sell electricity as well as generate it?

“Yes, it is a threat. In 1992 the federal government decided not to invest in further expansion of electrical infrastructure by itself. All further expansion would come through working with private partners. And in only twenty years, private generation is now one-third of the national supply. CFE, meanwhile, has no more money for grid expansion.” Villagómez seems pained by this admission, which, in all honesty, comes as something of a revelation to us even after years of studying Mexican wind power. With no more public funding dedicated to grid expansion, Mexican electropower had already been made contingent upon flows of international capital in ways that rehearsed the contemporary reform of Pemex and petropower.

Villagómez says thoughtfully, mournfully, “We are worried about the privatization of electricity even if they can’t commercialize energy yet. The federal government decided to invest in social development rather than in our growth potential, but how can we achieve growth without federal resources? So, we’re very aware of this problem, and one idea is to ask the government for independence, because we are so highly regulated that we can’t compete with the private companies. What we say is we want liberty of management.”<sup>29</sup>

His statement captures CFE’s paradox in a nutshell. The federal government wishes to tether CFE’s capacities of energopolitical enablement to the state’s biopolitical mission—allowing social development through electrification, guaranteeing highly subsidized electricity to much of its population—at the same time that it is also sacrificing CFE’s autonomy, infrastructure, and future to attract foreign capital.

Pemex’s future was also being threatened in the context of the energy reform, “but there is a very big difference between these two parastatals, CFE and Pemex,” Villagómez says, laughing. “Pemex pays huge, *huge* taxes to the government. So the government treats us very differently.”

In Mexico City we learned the extent to which CFE’s engineers and administrators felt victimized by the invasion of “political” motives into the “technical” world of the grid. The talk of “market” and “economy” was something of a suture meant to pin together the two otherwise seemingly incommensurable worldviews. But it was clear that CFE’s employees felt deprived from full participation in market logics as well. Their concerns about the economic costs of renewable energy transition were not being taken seriously by the government; they were blamed for greed and inefficiency by consumers but not even allowed to set their own tariff rates. Calderón had just authorized a change to the tariff system that had cost CFE a further four billion pesos per year.<sup>30</sup>

La Comisión—so hated and feared for its power throughout the isthmus—looked much more precarious in DF, especially on the eve of energy reform. Everywhere their expertise seemed called into question, their efficacy inhibited. The future of the grid that sustained them had been taken away from CFE. We came to wonder whether CFE’s intransigent ambivalence to wind power also had something to do with that forestalled future. Wind power might very well become a significant part of Mexico’s electrical future, but none of that energy would be supplied by CFE; it would not be part of their “growth potential.” Instead, private producers would profit while CFE would be left managing the engineering challenges of maintaining a grid that had to cope with increasing intermittency. Aeolian politics in Mexico was part of the weathervane pointing toward CFE’s diminishment and perhaps eventual abandonment. For once, it seemed we had encountered a win-lose proposition.

#### SENER

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The advice from CFE, that they could not illuminate the political rationale behind Mexico’s commitment to an accelerated renewable energy transition, led us to the Ministry of Energy, SENER. It was an especially tense time. The shockwaves of the Mareña fiasco and the Ixtepecan amparo (see chapter 1) were beginning to be felt in the Ministry of Energy during the summer of 2013. Meanwhile, the political situation in the isthmus was becoming very grim. In the space of just a few weeks, new blockades had been set up against Gas Natural Fenosa’s 234 megawatt Bií Hioxo project in the Playa Vicente area of Juchitán; the offices of the antieólico community radio station, Radio Totopo, had been attacked; leaders of the APIIDTT and APPJ (Asamblea Popular del Pueblo Juchiteco) were receiving death threats, and some went into hiding; there were even reports of “Zeta-looking” toughs covered in tattoos making the rounds and threatening people who were opposed to the wind parks.

In the end, we were able to arrange two meetings with SENER’s new deputy minister of electricity, María de Lourdes Melgar Palacios, and her assistant, Ana María Sánchez Hernández, the first of which was brokered by Sergio Oceransky, who was actively lobbying Melgar to support the Ixtepec community wind project.

Melgar begins the first meeting rather apologetically, saying, “Normally SENER concentrates more on long-term and big-picture energy planning,



but when I arrived in office I found these very serious social problems in the isthmus that needed to be addressed.” She senses growing opposition to the projects and knows that there needs to be more dialogue with the communities. But her question is how to achieve it. Most of the remainder of the conversation is spent with them asking us to share our impressions and recommendations based on our field research.

Sergio chimes in occasionally, advancing his agenda, pointing out that the previous government allowed these conditions to fester through a lack of oversight and regulation of the whole industry: “To take Playa Vicente as an example, the former mayor of Juchitán, Mariano Santana, allowed a lot of communal land to be privatized in order that this park project could move ahead. There are a lot of people in DF who knew exactly what was going on.”

Melgar replies, “Playa Vicente has been much on my mind lately,” and then pointedly criticizes the situation she inherited. “The lack of supervision over the whole process is the most scandalous thing to me. Once these projects get permits to interconnect to the CFE grid, and once SEMARNAT issues the environmental permits, there is absolutely no oversight over how these projects are constructed and operate. It’s a scandal.”

Melgar feels that both the federal and state governments “haven’t been doing their homework” about this development process, and she confides that the minister of energy is “really worried about this at the federal level.”

Meanwhile, at the Oaxacan state level, there are different powerful political actors vying with one another to steer the process from behind the scenes. “Oaxaca is in such a strange situation in that you have not one but three governors actively involved in the [wind] development process. One of the other governors approached the minister [of energy] recently and said that he could ‘take care’ of the conflicts if the minister would authorize him to do so.<sup>31</sup> And the minister said to me, ‘Just what this needs, *another* governor.’” Melgar laughs, but rather mirthlessly.

Before we depart, Sánchez mentions their intention to take a weeklong trip down to the isthmus to talk to all sides involved in the conflicts. They confess that they are planning to go undercover, perhaps posing as journalists or as researchers (“like you two”) in order to get more truthful responses to their questions.

The image of a high-ranking SENER administrator touring the isthmus in disguise—whether out of concern for truth or safety—says much about the informational, political, and spatial disjunctures between Mexico City and its distant provinces. Notwithstanding, we were very curious to hear about

what she learned on her trip and to ask what her plans were for addressing the lack of federal governmental oversight over the wind projects.

Our second meeting, in July 2013, is, sadly, disappointing in its content, with an atmosphere that is by turns enervated and tense. We are kept waiting for more than two hours and instructed (twice) not to use our video camera. Although we hope to get at least an audio statement on the record, Melgar and Sánchez seem very uncomfortable at the idea, so we drop it. Melgar absently toys with her smartphone while Sánchez does more of the talking. The visit to the isthmus, it turns out, only lasted thirty hours in the end, and if disguises were used, that goes unmentioned.

We ask whom they talked to and what they learned.

They answer vaguely that they talked to many different groups and have realized that there is a need to define procedures more clearly and to articulate “the correct form of development. We can’t simply focus on the business position because that won’t be sustainable for long from a social standpoint. Other groups need to feel that their interests are being addressed as well.”

They also learned that there are a great many tensions in the isthmus that have nothing directly to do with the wind parks. Development in the isthmus should be not just about wind development; the government needs to have to a balanced regional development plan. The bottom line is that, in terms of managing wind development, “we don’t know which esquema [scheme] will be the most useful.” Melgar mentions her personal commitment to renewable energy development and notes that wind development is growing in other Mexican states now—in Baja, in Puebla, in Yucatán—as though to say that even setbacks to istmeño wind development will not deter Mexico’s energy transition.

Walking us back toward the elevator, Sánchez speaks a little more freely, giving more insight into how at least some at SENER are thinking about the conflicts. “It’s too easy to say that it’s just the social movements that don’t want these projects. It’s also structural. That’s why government needs to re-define how the development process is designed and managed,” she says. “By consultation, you can’t just mean talking to the landowners! You have to consult with the whole community. [And] there has to be a process of the diffusion of information first, and then a consultation process afterward so people can raise concerns and objections. That should be the fundamental structure. It has to go through phases.”

This would sound very encouraging to those many istmeños we met who were concerned about—but not necessarily ideologically opposed to—the mushrooming of wind parks across the region. But again, as with STyDE in

Oaxaca City, it felt as though these considerate second thoughts about consultation were appearing too late to help defuse the conflicts brewing around projects that were already being built or already in operation let alone to significantly inflect the dominant paradigm of wind development in the future.

In a hopeful sign, in January 2014, Melgar's office organized a private informational meeting for all the renewable energy firms operating in the isthmus, focused on *el derecho a la consulta indígena* (the right of indigenous consultation), with the objective of "guaranteeing the development of projects with a focus on social sustainability, respect for human rights, and strict observance of international norms." A month later, Melgar was transferred, very likely promoted, to become deputy minister of hydrocarbons for SENER. But SENER's commitment to the principle of consulta appears to be ongoing.

In early 2017, on the page of the SENER website devoted to "Sustainable Development" was the following text: "In relation to the participation of communities in the process of making decisions about the execution of [electricity generation] projects, the Subsecretariat of Electricity promotes strategic actions to guarantee that the operation of the electricity sector in Mexico responds to the principles of sustainable development. In 2014, the Subsecretariat developed timely interventions in the matter of human rights and social sustainability."

The text goes on to explain that the Subsecretariat has initiated an "inter-institutional relationship" between SENER and several other federal agencies to help implement human rights and the right of prior consultation of indigenous communities.<sup>32</sup> Details are few as to what this interinstitutional relationship involves substantively. But the mention of a certain planned wind park gives a clue as to the origins and purpose of this initiative: "In accord, the first stage of a process of indigenous consultation has been realized for the construction and operation of a wind farm project in the Isthmus of Tehuantepec, which will have a generating capacity of close to 300 MW."<sup>33</sup> It sounds like Mareña reloaded, but this time beginning with a consulta and pursuing "the correct form of development."

As time would tell, the project in question was indeed a reformation of the Mareña Renovables wind park, now called Eólica del Sur and planned to be built on land belonging to both Juchitán and the neighboring town of El Espinal. In February 2015, SENER organized a consulta in Juchitán to present the project to the indigenous community and invited, among other observers, the former United Nations special rapporteur on the rights of indigenous peoples, James Anaya. Anaya has published his reflections on

the event,<sup>34</sup> which offer a detailed and balanced report on the deficiencies of the consulta.

Although Anaya offers warm praise for the “quality and dedication of SENER’s team” in the face of a difficult task, he notes that it is not in the spirit of UN Convention 169 to offer a fully formed project to an indigenous community for acceptance or rejection. Rather, the spirit of Convention 169 is for governments and companies to work together with indigenous communities at all stages of a given project’s formation. He views the form of the project as beneficial mostly to the company, and he criticizes the proposed distribution of benefits as “inequitable” and the informational methodology of the consulta as “ineffective.”

But Anaya’s worst criticism is saved for the attitude of the representatives of Eólica del Sur: “During my visit I perceived that the [company’s] staff views the indigenous population as inferior, their traditions and cultural practices as backward and their understanding of a right to communal ownership of the land and the wind as having no place in the modern world that they are promising. Operating personnel do not seem to grasp the political context and the risks of investing in a historically oppressed population, which still seems to be waiting to see the benefits of more than fifteen years of wind development, often times which has taken place under unfavorable conditions for the Zapotec population.”

## CRE

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The last stop in our tour of the federal governmental agencies involved (at least nominally) in regulating istmeño wind power development is the Comisión Reguladora de Energía or CRE, which was established in 1995 to essentially act as the permitting and regulatory agency overseeing the growth of Mexico’s private energy sector. Over time, CRE was granted additional authority in the electricity sector, especially in the definition of norms of renewable energy and natural gas use. The agency is widely regarded among developers not only as a regulatory agency but also as a broker and go-between that manages and optimizes relationships between investors, developers, and CFE. As one wind developer explained to us with a knowing nod, “CRE is more of a facilitator than a regulator in the traditional sense.”

With fewer than two hundred employees, CRE is not a large agency, but one feels a stark contrast in its offices from those of CFE and SENER. The jeans and short-sleeve shirts at the latter are replaced by business suits for all;

colorful ties and boardroom-worthy cosmetics finish off gender-normative ensembles. We meet with Alejandro Peraza, CRE's director of electricity and renewable energy. On the wall behind his desk are a series of vintage photographs of a hydroelectric dam under construction; on his bookshelves are several model wind turbines.

Peraza is calm and affable and a true believer in *autoabastecimiento*, waving off any idea that this course of development could be injurious to either CFE or the nation. "Our drivers are two: the high cost of public service electricity and the quality of our renewable resources." At CRE, he says, "we don't believe in subsidies, we believe in business [*negocio*]," and that attitude has led to large investments in renewable energy development without financial incentives from the government. They have even done away with *intermitencia*, he claims, by creating a "virtual energy bank" which tracks in real time the price of energy added to and consumed from the grid. "When generation drops, when intermittency occurs, I simply go to my bank account and withdraw my 'money' there. But, of course, there is no monetary transaction; it's all a matter of energy."

Although this is clearly not the aspect of *intermitencia* that troubles grid engineers, it is a shrewd bit of financial wizardry that helps to iron out fluctuations in payments. Peraza thinks highly of Mexico's chances to meet Calderón's clean electricity targets, particularly as they begin to pursue more small-scale projects (less than thirty megawatts) that can be developed quickly, efficiently, and with fewer environmental risks. He predicts that renewable energy will lower rather than raise the cost of electricity in Mexico in large part because it will bring in more efficient international partners and reduce reliance on CFE's expensive public service. He does not acknowledge that the high cost of that public service is also paying for high domestic electricity subsidies.

It is Oaxaca that is worrying him. "There is real trouble in Oaxaca now that can't be papered over. We're hoping to have five gigawatts of wind power in production by 2017 or 2018. It's very intense development activity. And obviously we are worried about the difficulties now." The Oaxacans both fascinate and irritate him. As the conversation proceeds, he gets increasingly reflective and speculative about what to do about *los oaxaqueños*.

It is a cultural and historical problem above all, he feels, driven by their affinity for *usos y costumbres*, "which essentially means there are zero rules, just whatever they say their customs are." He sputters, "Or they have—some of them have—they'll have a piece of paper, handwritten, that says for four centuries they have owned this land. This society, Oaxacan society, is very

committed to their internal rules. They might sign a contract with a company one day and then the next day decide, 'No, we don't want that contract after all.' And on the other side, none of the companies have been prepared for these kinds of negotiations; they think that they can negotiate in Oaxaca the same way they do in New York, but *Oaxaca no es lo mismo, Oaxaca no es lo mismo* (Oaxaca is not the same).

The quality of the wind is so good, though, that prospective investors continue to arrive even as the political terrain becomes more and more risk-laden. Peraza finds this lamentable and ultimately beyond his jurisdiction to solve. "We have no legal powers to solve the problem of social participation. It is not the same trying to do a wind project in Oaxaca as in Tamaulipas. In Tamaulipas they are fighting to have the parks there, opening the door wide to investors, likewise in Baja California, Zacatecas, but when it comes to Oaxaca, everything has become very complicated."

The problems are, he is sure, ultimately driven by money, by the Oaxacans' desire for money. The prospect of all that investment is creating political conflict and competition among them. He swivels in his chair, musing, "I don't know, perhaps we should just promise to give the money to the women. Studies have shown this is a good idea. The women use payments for public works, for pavement, for water, for drainage. But if you give it to the men, they'll spend the money looking for a prettier *muchacha*."

### The Banker

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From Peraza, we gain important letters of introduction to the communities of financiers and developers engaged in istmeño wind development. The conversations and settings range from a literal smoke-filled room of masculine corporate privilege at the wind industry advocacy group AMDEE to the bright, airy offices and pitch-perfect Euro-cosmopolitanism of EDF Energies Nouvelles. Above all, AMDEE seems committed to informing us of the unstoppable forward momentum of the private wind sector. They represent fifty-six different corporate interests who have been undeterred by "minor setbacks" like Mareña, which is "just one case among dozens of successful examples," they assure us.

Thomas Mueller Gastell, the Mexico country director for EDF-EN, laments the negative publicity Mareña has generated more openly, "since, through the media, it creates unfortunate stereotypes. That all wind developers are bad just like all Americans are spies and all Muslims are terrorists." Still, Mueller

feels optimistic about the future of wind development in Mexico. “The resources are so good in Oaxaca that even without government subsidies, they will be developed. The strength of European wind needs subsidies, but not the Oaxacan wind.”

By far the most fascinating of these contacts is the Banker, who, at his request, shall remain nameless. Of all our interviews across Mexico—short of Porfirio Montero, the supercacique of La Ventosa—the Banker is the person who exudes the most confident sense of command over Mexican wind development. He flawlessly voices the logic of capital—of people, land, and permits bought and sold—with an offhand pragmatism. It is little wonder given his investment portfolio. His institution has invested in a number of istmeño wind parks at different stages of development. He personally commands more than \$200 million of investment capital in renewable energy projects; he has a staff of a dozen in Mexico City and a network of more than a hundred agents managing community relations in the isthmus. His group’s annual profit target is \$12 million, which will increase to \$25 million in 2016. In some projects he earns a modest 1 or 2 percent annual return on his investments over ten years or more. In others, he can manage a 100 percent return in just three years. It all depends on the nature of the project and at what stage his group enters and exits the investment. The Banker speaks frankly, in detail, and with an occasional wicked sense of deadpan humor.

Unlike Peraza, the Banker knows how to manage the Oaxacans: “The mantra of working in Mexico as a foreigner is *patiencia, dinero* [patience, money]. . . . Otherwise you can quickly go crazy.” The only real problem he faces in Oaxaca is the evacuation infrastructure to bring his electricity to market. That is why developers are looking for projects elsewhere in Mexico: the existence of a larger grid and more consumers closer to the point of production. Ixtepec Potencia, he confirms, was financed by private investors like him who sought to sell wind-generated electricity to CFE as part of the first temporada abierta (open season). “Oaxaca is a sparsely serviced part of the country, and the existing infrastructure was already saturated, so we had to build new infrastructure for the 1,800 megawatts of new generation they had planned.” And there will still be more infrastructure to come. The second temporada abierta in 2011–12 also required that applicants commit to providing (in total) \$150 million of new grid extension and enhancement projects.

“CFE are such bastards,” the Banker chuckles. “That included reinforcing the ring around Mexico City, something that CFE should have paid for themselves.”

Developing a wind park in Oaxaca has, according to the Banker, become a rather routinized process. At least he clearly leaves little to chance when his money is at stake. “From greenfield to operation, it takes nine years. In Oaxaca it’s all about land. One megawatt of wind occupies ten hectares. So a two-hundred-megawatt wind park is two thousand hectares. That’s three or four hundred people I need to convince.”

“Now, land tenancy is a complicated thing in Oaxaca,” he continues, “and you’ll sometimes find four guys associated with one land plot. I mean, technically it’s illegal, but it’s common. The point is that you’ve got hundreds of people to convince, and you have to convince them in the most *human* sorts of ways, so it can get quite expensive. Obviously, you need to have locals doing this. They need to know how these people think. I am completely aware that I am the *absolutely* wrong person to go and talk with these guys.” Invoking *Star Trek*, he explains, “I don’t speak Klingon, and they speak Klingon. That is, it’s not just that they speak Zapotec, it is that they have a cultural outlook that is completely alien to me, and for me to try to engage them would only get me into trouble. So instead I rely on an extensive local team. We have a hundred people scattered across our different projects there. People who were raised in the region, who speak Zapotec; the landowners know their fathers. Even then, it doesn’t always work.”

We ask the Banker how he finds people for his local team.

“Well typically,” he responds, “I don’t put my money at risk in the earliest stages, so someone else has already bought some people for me to work with, and then the connections are handed over. The point is that the first six years of project development is just about getting contracts for the land and doing the wind measurements. But you can’t get the land without conveying a clear sense of when [the posesionarios] will be making the big money. And the Oaxacans, bless them, don’t give a damn about percentages,” he explains. “They always want the flat rate. So you have to pay them a bit more up front even if you do better on the back end of the deal. It’s expensive to get the land contracted and held, and there’s a massive inflationary cycle going on now as the best land gets scarcer. Right now, just to give you a sense, to keep a two-hundred-megawatt project idle costs about \$1 million a year in payments.”

The Banker normally starts to get involved in projects about four to five years in, when analysts begin to calculate what he terms the “economic viability” of a project. He says this process has become immensely easier since the federal government instituted a universal willing cost (known in Mexico as *porteo postal*, or postage stamp) for use of the CFE grid. The *porteo postal* means that wherever a park is located and wherever the customer plans to



use the energy, there is a straightforward payment per megawatt of transmitted electricity, which is inflation indexed and visibly posted on the CFE website.

“Before this,” the Banker says, “you had to pay CFE to undertake a special interconnection study that cost tens of thousands of dollars, and there was no way to predict how they would calculate the marginal cost of transmitting energy. It could be anywhere between one dollar per megawatt and thirty dollars per megawatt. There was no transparency; it was a ludicrous situation.”

After economic viability is proven, next comes the permitting phase. “The big permit is the environmental permit, but it’s largely bought and paid for. I’ve heard of delayed permits but never rejected ones. Then there is the archaeology permit, the transport permit, the license from the municipality. That’s a very expensive one, you’ve got to pay for the mayor after all, \$5,000 per megawatt.”

We talk a little more about the contentious issue of municipal license fees in Juchitán right now. He reminds us with a smile that “in Mexico, mayors only get elected once, and only for three years, so their pension fund can’t wait.”

The Banker sees little mystery in wind park development, and despite all the talk of conflict in the isthmus, he even doubts that it is all that risky if the process is gone about the right way, that is, if money is invested far enough in advance and wisely to ready the terrain for development and if the Klingons are allowed to speak to other Klingons who understand them and whom they trust.

“It’s a clear, tedious, and expensive process.” He sighs, very much business as usual.

Given his detailed modeling of its contingences, we expect him to say that financial experts like him are the ones truly governing wind development in the isthmus. But when we put that question to him directly, he shakes his head.

For him, CFE is still the key player. “CFE is by default the driver of this process because they are a technically bankrupt organization with one resource—transmission capacity—which they guard jealously. They give you nothing for free. If you have a self-supply project, fine. Then you will be building new trunk lines for them.”

He sits up a bit in his chair. The topic of CFE animates him more than the Oaxacans. “There’s a reason why they are behaving this way. You have to understand the economic situation of CFE,” he explains. “They have a total income of 330 billion pesos annually. Half of that is spent on subsidizing

their residential sector.” More than 98 percent of their residential customers, he says, receive “a 70 percent discount off the real cost. That’s CFE’s biggest investment, really their only major investment. They don’t have funds for other investments. The average household consumption of electricity in Mexico is 1.4 megawatt-hours per year. National demand is two hundred terawatt-hours, growing 4 percent a year. A household should be paying four thousand pesos a year real cost, but with the subsidy, they pay two hundred pesos every two months. That’s a nice deal. But to do that, CFE has to overcharge their commercial customers.” To illustrate his point, he says, “In southern Texas, a convenience store will pay half [for its electricity] what a convenience store pays just across the border.”

What is *not* driving wind development in Oaxaca, in the Banker’s opinion, is any environmental mission. “What is your motive for renewable energy, anyway? Green? Nah. It’s nice, but it’s not the motive.” He explains, “I see two types of companies. With one type, being green is the goal indirectly. A company like Walmart’s board is telling them to green their image by making some investments. But for the majority, tariffs are the real motivation. There is remarkable volatility month to month in CFE’s tariffs. It is often plus or minus 4 percent; 7 percent is the record in the past year. And you can’t hedge Mexican electricity prices. You only hedge by entering into a twenty-year fixed-price contract. So if your company uses a lot of electricity, and you want to know your long-term costs better, it’s a good idea; you’ll probably save money.”

It is late in the day, and the Banker leans back in his chair, his eyelids heavy, his words slightly slurred because of a fatigued tongue. “Let me give CFE credit where credit is due. If theirs was an efficient model, then it wouldn’t be so profitable for me to sell electricity.” But he recognizes, more so than others with whom we have spoken, why CFE would also seek to delay, resist, and impede private sector energy provision. “If CFE loses too many of those commercial customers they need to overcharge, if they are lost to the private sector, then CFE will really be in the shit.”

### Forever an Obscure Object of Desire

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In our last few weeks in the capital, we endeavor to track down Oaxacan politicians who are working in Mexico City. We feel anxious to complete the work because the well-known Mexican volcano Popocatepetl has recently reawakened and is ominously beginning to send forth steam and ash.

We meet first with Carol Antonio Altamirano, the former mayor of Asunción Ixtaltepec, a town on the road between Ixtepec and Juchitán, who currently serves as a federal diputado for the PRD party. At his suggestion we meet at the Sanborn's in Parc Delta, which possibly serves the worst coffee in the world. We arrive to find Altamirano, who is dressed sharply in a grey suit, pink tie, and striped shirt, staring at a plate of nearly finished eggs. He is irritated at the waitress for not having cleared them away already. A few snippy exchanges later, he settles back into his public persona. He becomes animated, fidgety even, taking demonstrative sips of water, leaning in closely to enact familiarity.

The wind parks are much on his mind. He says emphatically that although the situation is worsening (*agudizado*), the great majority of the people in the isthmus still want the wind parks. "The people want investment, and this type of investment doesn't have a bad environmental effect. *But* they want their traditions of decision-making respected—they don't want investment through payoffs—they want respect for their land, and above all, they want to receive a significant share of the benefits."

He laments, as do so many of the other politicians we have spoken with, the lack of a government agency to coordinate wind development on the ground in the isthmus. "Instead, it is just the companies handing out information, and of course, it is their vested interest to get people to sign their contracts. There's a lack of transparency between the companies and the communities."

The worst thing, however, is the *actitud de soborno* (bribery mentality) that drives the whole sector: so many projects proceed through payments in cash and trucks to mayors.<sup>35</sup> Ultimately, it is counterproductive. "People in the isthmus are very jealous. When the company gives someone a truck, that offends everyone else. So the more money that flows in, the more protests arise. It's a vicious cycle."

The cycle has deep historical roots, he admits. "The isthmus has been poor for so long that rapid influxes of money break the *tela social* [social fabric]. There have always been social divisions in the isthmus, *always*. People are accustomed to divisiveness in the isthmus. But in the old days, the conflicts were without killings. The wind parks were like the match that enflamed the situation."

Altamirano raps his knuckles confidently on the table, saying that he has just drafted a new law for discussion in the federal chamber of deputies to help improve the situation. It has three parts: (1) to impose a 6 percent tax on gross electricity sales, (2) to send those tax revenues directly to the municipios affected by the development, and (3) to guarantee that those revenues

will be used directly for social projects. In other words, it will be impermissible for the funds to go toward indirect administrative costs, thus preventing resources from being siphoned away by politicians for other purposes.

“This plan will not only benefit communities directly, but it should also help put an end to the bribery. Indeed, I think it may even save companies money in the long run.”

Interestingly, he seems completely unaware of the existence of the Yansa-Ixtepec community wind park proposal even though it would be sited in his legislative district. After a few minutes’ discussion, however, he seems all for it, musing, “Perhaps we need a further reform that will incentivize community wind parks so that for every two parks built by Iberdrola, there will be a community park.”

In the weeks that follow, we look expectantly for a news report from Mexico City regarding Altamirano’s proposed legislation, but we find no coverage at all. It appears to have died behind closed doors—yet another failed dream of aeolian governmentality.

Our last meeting of this set is with Diódoro Carrasco, the former governor of Oaxaca, who is still a political kingmaker for his PAN party. We approach the interview with great anticipation and a little trepidation. The rumor is that (current Oaxacan governor) Gabino Cué is Carrasco’s disciple, that the former owes his governorship to the latter’s networks. Carrasco’s consultancy is also rumored to be working for various wind park projects in the isthmus, keeping things moving smoothly. Some say Carrasco is even on retainer for Mareña, putting pressure on Cué to use violence if necessary to move the project along.

Laurence Iliff has warned us about Carrasco too: “He did some really oppressive things when he was governor. I remember Vicente Fox telling me after he became president that one of the first things he had to do was to pardon all the people Carrasco had thrown in jail in Oaxaca. There were three thousand people in jail just for eating iguana!”

We are scheduled to meet Carrasco at his consultancy office in the Centro Histórico, not far from the Diego Rivera Museum. The office is strangely ragtag. It lacks a sign of any kind; the gray carpet is worn and rumpled. The air is stale, and fluorescent lights buzz and flicker. We are at a conference table awaiting him when his assistant, Paulina, flutters in to tell us that he will meet us in his private office instead, just down the block. Carrasco has been delayed by a meeting with—wait for it—Gabino Cué. We hurry there, excited by the prospect of bumping into Cué as well. Unfortunately, though, we just miss the sitting governor. But obviously *just*: Cué’s cigarette smoke still hangs in the air, and a butt still smolders in Carrasco’s ashtray.

This office is more what we had expected of Carrasco given his reputation. It is large, richly decorated, and perhaps unintentionally postmodern in its decorative menagerie of temporal dislocations. To our right is a TV playing *We Are the '80s* at a moderately annoying volume. A copy of Bill Clinton's *Mi Vida* is prominently displayed on the neighboring bookshelf among a host of art and antique books. The table we are sitting at is glass and contains an inset shelf of weathered medals. Next to the couch is a vintage L. C. Smith & Bros. typewriter encased in a Lucite cube.

If Carrasco is the predator he is reputed to be, then he is nonetheless a smooth and charming one. He is a good storyteller, combining colorful metaphors and dramatic tales with occasional poetic and paranoid twists. Leaning back on his leather couch, he says that the isthmus has been "an obscure object of desire" forever, at least since the days of Porfirio Díaz. It was a possible site of what became the Panama Canal. North American and European companies came from the around the world, hungry for the *riqueza* (riches) that the isthmus offered. "It's a very special place both in terms of Oaxaca and Mexico."

But the other side of the cultural richness of the isthmus is that it has always fought against Mexican *mestizaje*. "It has this parallel history of conflict, of being permanently at war. They fought the Arabs who came with the railroads, they fought the French, they even fought [Benito] Juárez. Oh, how they *hate* Juárez in the isthmus." Carrasco laughs. "And then came COCEI, the biggest movement of its kind in Mexico, and they fought the PRI."

In the isthmus they have always been "very autonomous and very war-like," he says, and for that reason, it does not surprise him that there is so much crime there as well. He says those who traffic drugs and persons have deep networks in the region. All the development schemes planned for the isthmus since the Mexican Revolution have not amounted to much. Wherever factories were built, they were lost to political conflict, blockades, strikes.

Still, when it comes to wind power, he is an optimist. "It's such a terrific resource. The government won't keep making mistakes about it. The future looks marvelous," he says confidently.

During his sexenio as governor (1992–98), Carrasco does not recall any talk from the federal government about using wind power as a development instrument. "But under Calderón, things changed, it became a priority, and that's a good thing. Unfortunately, there was a lack of regulation, and companies have done too little to benefit the communities." Ultimately, however, Carrasco places blame on Oaxacan *liderazgo*, on organizations like UCIZONI

that sponge up money, prestige, and legitimacy from international activist groups and attack any megaproject they can.

“They say these projects violate the sovereignty of indigenous peoples, and while some of their points are valid, others aren’t. And they never offer a positive alternative; it’s always a discourse of negation with them.” He says that when his administration was planning the Trans-Isthmus Highway twenty years ago, the same groups were saying exactly the same things.

He notes that the projects that have taken place on mostly private land have fared quite well. Even Mareña might have made it if there had been a little more *mantequilla* (butter) at the beginning.

“Carlos [Beas of UCIZONI] says it’s going to kill the fish, but I’d rather listen to a marine biologist,” he says, laughing. And then he reiterates his own discourse on deficiency, “The companies need to have better social plans. And the government should have been regulating them more strongly.”

Finally, he leans in to share a secret theory about the resistance. “Here is my secret theory that I cannot prove. The parks that have really encountered problems are all next to the ocean. Maybe the problem is that someone doesn’t want legitimate development along the shore because that would prevent illegal traffic from using it.” He leans back, smiling broadly. “I can’t prove that, but that’s my hypothesis.”

As we get up to leave, it feels as though there is still smoke lingering in the room, a trace also, in the Derridean sense,<sup>36</sup> of the absent istmeño other, standing in for the diversity of Mexicos that are not Mexico City: the regions, the indigenities, the war machines, the distant dreams, and materials without which the lavish national and cosmopolitan life of DF could not exist.

This chapter has explored the forces and impasses, the powers and contingencies, of energy, infrastructure, finance, and state governance in the nexus of all Mexican flows: the Distrito Federal. Through the granular testimony and experience of key actors involved in the management of biopower, capital, and energopower, the monolithic and harmonic qualities of these ensembles of enablement have been dispersed. We see instead their internal contradictions and dense, turbulent entanglements with one another. They enable and disable one another in complexly knotted formations.<sup>37</sup>

The federal government inhibits CFE’s ability to extend its own grid as a means of luring more foreign capital to its imperiled project of national development. Yet the only reason the capital will come is because CFE’s electricity tariffs are so high, which is, in turn, an effect of the biopolitical mission of subsidized residential electricity. Foreign capital would seem to be the lead

puppeteer of the whole drama, and yet it is being stalked and manipulated by a jealous parastatal seeking to prevent its own dissolution in the process of energy reform. Capital is likewise being challenged by “very autonomous and very warlike” critics, even being bled by its “allies” in a region at the edge of the rule of national law. The federal government might also seem to hold superordinate power in that it has created the policies, both Cardenista and neoliberal, that appear to constitute the rules of the game for the nation’s electric future. And yet that government knows all too well the fragility of its petro-statecraft in a time of peak oil and climate change and its inability to outmaneuver or silence the Carlos Beases of the world as they undermine and disrupt the already-strained alliances between CFE and foreign capital.

There was no more common sentiment we heard in the course of research than that the government was not in control of what was happening in the isthmus; its biopolitical promises so often seemed to fall on deaf ears there that even its energy ministers were forced to travel incognito in search of answers. Finally, the grid itself—so essential to Mexico’s present and to Mexico’s future, channeling hundreds of terawatt-hours a year, with demand only growing—faces a dynamic geopolitics of fossil fuel supply on one hand and the intermittency of renewable energy on the other. This is not even to mention the challenges of infrastructural maintenance and extension and the estimated 15 to 20 percent of generated electricity sacrificed in technical and nontechnical losses, three to four times the equivalent loss in the United States or Europe. The grid was certainly not capable of delivering on the promise of the Mexican postpetrostate by itself.

What future configuration of energopolitics—taking this term now in its broadest sense of “energy politics,” aeolian and beyond—could guarantee the national health and wealth desired by government; the expanding profitscape desired by capital; the responsive, lossless infrastructure desired by the grid? That future deserves greater discussion. And to the extent that it involves wind power, we must return to where Mexico’s wind is being harvested, where contracts are being signed and contested, where turbines and blockades are rising, where blades and machetes and protest marches are already in motion. We must return to the front lines of tension and struggle over the future of istmeño wind to better understand the aeolian political potentialities that are being set into motion there. Our final journey is thus to Juchitán, the semimythical, autonomous, and unruly political hub of the isthmus, where all the sovereign powers and visions of Mexican national imagination often seem like the drifting smoke and evening incandescence of Popocatepetl, a remote and curious spectacle.