

Just Transition: Lessons from Mexico

by

Chelsea Hodgkins

B.A. International Development and Geography
West Virginia University, 2013

SUBMITTED TO THE DEPARTMENT OF URBAN STUDIES AND PLANNING IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER IN CITY PLANNING
AT THE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

JUNE 2021

© 2021 Chelsea Hodgkins. All rights reserved.

The author hereby grants to MIT permission to reproduce and to distribute publicly
paper and electronic copies of this thesis document in whole or in part in any
medium now known or hereafter created.

Author: _____

Department of Urban Studies and Planning
May 17, 2021

Certified by: _____

Lawrence Susskind
Ford Professor of Urban and Environmental Planning
Department of Urban Studies and Planning
Thesis Supervisor

Accepted by: _____

Cesar McDowell
Professor of the Practice
Chair, MCP Committee
Department of Urban Studies and Planning

Just Transition: Lessons from Mexico

by

Chelsea Hodgkins

Submitted to the Department of Urban Studies and Planning on May 17, 2021 in Partial Fulfillment of the Requirements for the Degree of Master in City Planning.

ABSTRACT

In 2013, Mexico undertook a series of national energy reforms that promoted large-scale, privately-funded renewable energy development. The stated goals of the reforms were to fill investment gaps in the public energy sector and to help meet CO2 reduction targets. Human rights and environmental organizations in Mexico, however, have criticized this model of development promoted by the reforms for their apparent contributions to increasing human rights abuses and generating new “socio-economic conflicts.”¹

Using data collected between 2010-2020 at the Business and Human Rights Resources Centre on abuses in renewable energy development across Latin America and a review of policy, regulatory and legal regimes of the reforms, this thesis explores three primary questions: 1) Why are large-scale, private sector projects the preferred model of renewable energy development?; 2) What legal and regulatory structures created by the reforms enable the present violence and conflict?; and 3) What lessons can the global community learn from Mexico’s model and experience?

My key finding is that the energy reforms in Mexico, and the model of renewable energy development they promote, need to be reconsidered. A just energy transition model, that moves from fossil fuels to renewables, would not encourage the current patterns of land use and dispossession. Further, the rights of indigenous peoples must be secured through full recognition, legally and in practice, of their customary land rights and community practices regardless of the interests of private investors, companies, and governments in renewable energy.

Thesis Supervisor: Lawrence Susskind, Ford Professor of Urban and Environmental Planning, Department of Urban Studies and Planning, MIT

Reader: Karen Vazquez-Hudlet, Former Mexico Representative and Researcher, Business and Human Rights Resource Centre

¹ Puentes, A., Peña Lizarazo, R. 8 July 2020. “Towards Energy Justice in Mexico: Challenges and Conditions.” Business & Human Rights Resource Centre. <https://www.business-humanrights.org/en/blog/desaf%C3%ADos-y-condiciones-para-avanzar-hacia-la-justicia-energ%C3%A9tica-en-m%C3%A9xico/>

ACKNOWLEDGEMENTS

I would like to thank my family and friends for their ongoing support over the years and in this endeavor specifically. Notably Helen and Skip Hodgkins, Allison Beaufort, Shannon Chapman, Courtney Dymowski, Ashley Thomson, Rebecca Gailey, Matias Williams and Andrea Grimaldi. Without their support, particularly amidst the global pandemic that began in 2020, none of this would have been possible.

Many thanks go to the reader of this thesis and my mentor, Karen Vazquez-Hudlet of the Business and Human Rights Resource Centre. She is the mastermind and visionary behind the database that serves as the data, foundation, and inspired this study. Especially in a time when going to Mexico to undertake fieldwork wasn't possible, Karen was instrumental in shaping my understanding of the situation on the ground, helping to find theoretical literature to frame my study, and providing overall support.

I would like to thank the PKG Center for funding my fellowship with the Mexico and Central America Team of the Business and Human Rights Resource Centre. Though the fellowship was virtual, it was an eye- and world-opening experience for me. A big thanks to Diana Figueroa-Prado, who was my internship supervisor at the Centre. She was patient in my language acquisition and dedicated to my professional development and personal wellbeing. Her guidance and the opportunities she provided have helped to inform who I am today across many dimensions and I am indebted to her.

Last, but not least, thank you to my thesis and academic advisor, Lawrence Susskind for his countless hours of support over the years. Thank you, Larry, for always keeping an open door, for your patience in this process, and for helping to shape this study to make it more directed and meaningful.

CHAPTER 1: Introduction and Context

Across the world, renewable energy development is replicating the same social and ecological violence of the fossil fuel energy system. In Kenya, the Maasi tribe have been displaced from their lands for KenGen to develop a geothermal project; in the United States, Tribal nations face various barriers to renewable energy development because of the Federal government's policies and its failure to uphold its Trust responsibility. In Mexico, as is true of at least 16 other countries in Latin America,² land and human rights defenders across the country face various abuses including impediments in accessing justice, violations of the principle of free, prior and informed consent, and even death.

In 2013, Mexico undertook a series of national energy reforms that made viable renewable energy development. This was a big step for the country and the world in reducing carbon emissions driving climate change: Mexico is the thirteenth highest emitter of greenhouse gas emissions globally; 70% of the country's emissions are from its energy sector.³

A key driver for the Mexican government in promoting large-scale, privately-funded projects is to more efficiently achieve ambitious climate targets, which include the "unconditional target to reduce GHG emissions by 22 percent below the baseline by 2030" in their Intended Nationally Determined Contribution (INDC) of the Paris Agreement and pledges with the US and Canada to achieve 50 percent clean power generation across North America by 2025.⁴

Yet, human rights and environmental organizations in Mexico have heavily criticized this very model of development promoted by the reforms. The Interamerican Association for the Defense of the Environment has said that such a model has "made it impossible to overcome the wide gaps in exclusion for socio-economic and territorial reasons" and generated new "socio-economic conflicts."⁵ Data on large wind parks developed in communities and on indigenous lands substantiates that

² Vazquez, K. and Hodgkins, C. June 2021. "Violations of Human Rights in Renewable Energy Development Across Latin America," *Forthcoming*. Business & Human Rights Resource Centre.

³ Ramirez, P. 8 July 2020. "Energy in Mexico: from inaction to regression." Business & Human Rights Resource Centre. <https://www.business-humanrights.org/en/blog/panorama-energ%C3%A9tica-en-m%C3%A9xico-de-la-inacci%C3%B3n-a-la-regresi%C3%B3n/>

⁴ Wood, D. October 2018. "Mexico's New Energy Reform." Wilson Center Mexico Institute. pg. 148. https://www.wilsoncenter.org/sites/default/files/media/documents/publication/mexicos_new_energy_reform.pdf

⁵ Puentes, A., Peña Lizarazo, R. 8 July 2020. "Towards Energy Justice in Mexico: Challenges and Conditions." Business & Human Rights Resource Centre. <https://www.business-humanrights.org/en/blog/desaf%C3%ADos-y-condiciones-para-avanzar-hacia-la-justicia-energ%C3%A9tica-en-m%C3%A9xico/>

inequality, attacks against human rights defenders, and human rights abuses have increased.⁶

Work that I have been doing with the Business and Human Rights Resources Centre since June 2020, has added additional context to the human rights abuses experienced by communities and human rights defenders in Mexico's energy transition. While across the world, renewable energy development is replicating the social and environmental violence of the fossil fuel sector, Latin America disproportionately bears the burden: with 61% of all allegations of abuse globally, it is the region with the highest number of human rights abuses in renewable energy development.⁷ And the number is growing.

From 2010-2020, abuses across all of Latin America grew by 1,050% (from 8 reported cases in 2010 to 92 cases in 2020). Mexico and Central America carry the regional burden of abuses, accounting for 68% of all recorded cases. Moreover, Mexico in particular has the highest number of abuses of any single country we've reported on in the region: 136 cases resulting in 532 instances of abuse, all by renewable energy companies. The three most common abuses in Mexico are attacks against human rights defenders, violations against land and territory rights, and infringements against indigenous rights.

But why? What is it about this model of development--of large-scale, private, foreign-funded projects-- that is widening inequality and producing such negative, violent impacts on communities? Now is a particularly ripe time to be challenging the system of development initiated by Mexico's energy reforms considering the actions by the current administration of President Andrés Manuel López Obrador, otherwise known as AMLO. Since at least 2018, President AMLO has challenged the reforms in ways that have sought to restrict renewable energy integration and private investment.

My thesis explores three primary questions: 1) why the preferred model of development is large-scale, private, foreign-funded projects; 2) what legal and regulatory structures set up by the reforms enable the violence and conflict that is present in the renewable energy sector and *prevents* a just energy transition; 3) what lessons can the global community learn from Mexico's model and experience?

The more action on climate is delayed, the more pressing the need for large-scale projects to meet greenhouse gas emissions reductions targets and mitigate climate change impacts will become. It's already happening: the acceleration of utility-scale

⁶ Ancheita, A., Torres, G. 8 July 2020. "Deconstructing narratives around renewable energy." Business & Human Rights Resource Centre. <https://www.business-humanrights.org/en/blog/deconstruyamos-las-narrativas-de-las-energ%C3%ADas-renovables/>

⁷ Business and Human Rights Resources Centre. 29 June 2020. "Renewable Energy & Human Rights Benchmark." <https://www.business-humanrights.org/en/from-us/briefings/renewable-energy-human-rights-benchmark/>

renewable energy projects⁸ and increased human rights abuses in the sector⁹ are global phenomena. What lessons can be learned from Mexico's transition thus far that can and should be replicated elsewhere and should act as a tale of caution?

This thesis is not a stance against renewable energy development; the climate crisis necessitates society transition away from fossil fuels as part of a broader comprehensive strategy coupled with reduced consumption and degrowth. Rather my work is a critical interrogation of its current model, who stands to benefit, and at what human cost.

⁸ International Energy Agency. 2020. "Renewables 2020: Analysis and Forecast to 2025."
<https://www.iea.org/reports/renewables-2020>

⁹ <https://old.business-humanrights.org/en/successful-globalization-is-only-possible-if-all-voices-are-heard-7-increase-in-attacks-on-defenders-damages-prospects-of-stable-equitable-future>

CHAPTER 2: Literature Review

The global context: Climate Capitalism as a mechanism for 'greening' capitalist violence

Mexico's energy reforms occurred within a global paradigm in which solutions to climate change, including renewable energy, are being created and implemented through 'climate capitalism' (Newell and Paterson, 2010). Climate capitalism is the political attempt to decarbonize the global economy while simultaneously ensuring continued economic growth (Newell and Paterson, 2010, p. 1). In response to increasing societal pressures to address climate change, political and financial elites have created and are committed to new governance mechanisms, like carbon markets, that don't fundamentally change capitalism, but simply reorganize it. Climate capitalism is a masked attempt to 'decarbonize' and 'green' the economy with minimal disruption to patterns of economic growth and expansion of the global economy (Böhm, Misoczky, and Moog, 2012)¹⁰.

The 'green growth' of climate capitalism does not fundamentally question growth, injustice or inequality embedded in the economic structures capitalism created (Hitchcock Auciello, 2019).¹¹ In fact, climate capitalism exacerbates the pre-existing violences of capitalism and makes policy mechanisms through which governments, companies, and institutions sponsor violence to build an economy still characterized by uneven growth and disparities of income, and by the unequal distribution of economic, social and environmental risks that global markets produce (Böhm, Misoczky, and Moog, 2012; Sellwood, 2014¹²).

Building Climate Capitalism: Accumulation by Dispossession

From a Marxist perspective, David Harvey's theory of accumulation by dispossession (2004) highlights a fundamental driver of violence and conflict in capitalism broadly that can be seen as a theoretical perspective on how energy reforms in undertaking climate capitalism Mexico have resulted in violence.

Harvey's inquiry begins with the central question, "how has capitalism survived for so long, and how does it continue to do so, in the face of multiple crises and reorganizations?" First, he suggests that spatio-temporal fixes, or the decision of how to use excess capital and labor for short term over long term projects, plays a

¹⁰ Böhm, S., Misoczky, M., and Moog, S. 19 November 2012. "Greening Capitalism? A Marxist Critique of Carbon Markets." *Journal of Organization Studies*. Volume: 33 issue: 11, page(s): 1617-1638.

¹¹ Hitchcock Auciello. 2019. "A Just(ice) Transition is a Post-Extractive Transition." *War on Want and London Mining Network*.

¹² Sellwood, S. 2014. "Interrupting 'Green Capital': Transformative Political Practice at the Frontiers of Wind Energy in Mexico." University of North Carolina Chapel Hill. <https://core.ac.uk/download/pdf/210599322.pdf>.

role in helping capitalism to survive by helping to overcome “the inner contradictions of capital accumulation” (Harvey, 2010, 64).¹³ Specifically new spaces are produced, territories reorganized, and social relations and institutional arrangements penetrated to create new “dynamic spaces of capital accumulation” (Harvey, 2010, 66).

One problem, according to Harvey, of spatio-temporal fixes in dealing with overaccumulation of capital is that it is not sustainable; spaces and relationships between human and natural systems can only be manipulated and reproduced at a pace and to such an extent that is not compatible with profit motives. To compensate, alongside such ‘spatio-temporal’ fixes has been a rise in attempts to, what Harvey coins, accumulate by dispossession. Accumulation by dispossession recognizes the ‘continuous role and persistence’ of predatory practices associated with Marx’s ‘original’ theory of accumulation, like predation, fraud, and violence. These practices are part of wider processes that include

“...the commodification and privatization of land and the forceful expulsion of peasant populations; conversion of various forms of property rights – common, collective, state, etc. – into exclusive private property rights; suppression of rights to the commons; commodification of labour power and the suppression of alternative, indigenous, forms of production and consumption; colonial, neo-colonial and imperial processes of appropriation of assets, including natural resources; monetization of exchange and taxation, particularly of land; slave trade; and usury, the national debt and ultimately the credit system” (74).

Sellwood illustrates the connection between climate capitalism and accumulation by dispossession in his study of indigenous resistance to the San Dionisio project along the Barra de Santa Teresa in the Isthmus of Tehuantepec, Mexico.

“Few of the promised benefits are forthcoming, whether in the form of equitable rents (for access to private, communal or ejidal lands), community access to low cost electricity or, long-term dignified employment opportunities. Moreover, state sanctioned initiatives to produce the technical and legal conditions necessary to enable the circulation of capital with and through wind (what I describe as a ‘green energy’ frontier) have fundamentally excluded indigenous peoples perspectives and do not recognize the noncapitalist values of their existing socio-ecological (or biocultural) systems” (Sellwood, 2014)

According to Harvey, the state and financial institutions play a key mediating role because they both have the capacity to generate credit, and therefore stabilize or destabilize the system. He goes so far as to say that the state has a monopoly on violence and ‘definitions of legality’ and plays a “crucial role in both backing and promoting these processes” (74).

Rather than help to facilitate a just transition from fossil fuels to renewable energy, legislative

¹³ Harvey, D. 2004. “The ‘New’ Imperialism: Accumulation by Dispossession.” The Socialist Register.

reforms by governments across the world have led to an increasingly complex situation whereby renewable energy projects are intertwined with severe forms of state-sponsored violence and repression. This thesis investigates such culpability through the case study of Mexico's energy reforms.

CHAPTER 3: Case Study of the Electricité de France (EDF) Gunaa Sicarú Wind Factory in Oaxaca, Mexico

General Overview and case introduction

In October 2020, representatives from the indigenous, agrarian community of Unión Hidalgo on Mexico's Isthmus Region in Oaxaca, in partnership with the Mexican human rights organization ProDESC and the European Center for Constitutional and Human Rights (ECCHR), filed a lawsuit against French company Electricité de France (EDF). The lawsuit was filed under the French duty of care law, which requires large companies (identified as 5,000+ employees) to identify and prevent risks to human rights violations and environmental damages from their operations.

The community asserts that EDF violated their rights to free, prior and informed consent (FPIC) in the development of their wind farm. The lawsuit¹⁴, which seeks to prevent further FPIC violations and risks to their physical safety, was an historic step forward in a years-long, ongoing conflict that has reported various human rights violations, environmental impacts, and even killings of human rights and land defenders. In the proceeding sections, I will highlight the story of Gunaa Sicarú as an illustration of violations of human rights and abuses against defenders that have increasingly occurred since the energy reforms of 2013.

Context of the Isthmus

The story begins in Union Hidalgo, an indigenous community of the Isthmus of Tehuantepec, in Southern Mexico. The Isthmus is territory of indigenous peoples including the Zapotec, Ikoot, Maya, and Zoque. As an area rich in resources, it has historically been sought for national megaproject developments, which have been met with strong resistance.

The International Finance Corporation recognized the Isthmus as 'home to some of the best wind resources on earth' (IFC, 2014)¹⁵. This has also been found by other international development actors, like USAID, which confirmed this and found a potential of 33,000 Megawatts (MW) of developable wind resources.¹⁶

In rural Mexico, most of the land is owned and administered by Ejidos, or local indigenous cooperatives. Ejidos can choose to hold land communially, distribute it to ejido members, or sell property, but it is entirely their right to choose how their land is

¹⁴ 13 October 2020. "Lawsuit filed against EDF for alleged failure to respect French duty of vigilance law over wind project in Mexico." Reporting available through the Business & Human Rights Resource Centre. <https://www.business-humanrights.org/en/latest-news/devoir-de-vigilance-edf-assign%C3%A9-en-justice-pour-ses-activit%C3%A9s-au-mexique/>

¹⁵ International Finance Corporation (IFC). May 2014. "Investments for a Windy Harvest." https://www.ifc.org/wps/wcm/connect/a0f55458-988a-4756-8ebd-f456235bc644/IFC_CTF_Mexico.pdf?MOD=AJPERES&CVID=kCCelk9.

¹⁶ Banner, P. September 2009. "Mexico Wind Farm Case Study." USAID. http://www.energytoolbox.org/gcre/wind_case_study.pdf

used; thus it is not enough for a company or individual to secure land rights via methods sufficient for government approval.

This is the case for the majority of the land in the Isthmus that is viable and attractive for wind development. USAID noted the challenges this can cause in renewable energy development, “The administration and ownership records of the Ejido lands are often incomplete and convoluted. Poor record keeping by the states, corruption, and unsettled disputes often cloud ownership” (USAID 2009).¹⁷

The Project

The Gunaa Sicarú wind factory is a 252 MW project to be generated from 115 wind turbines. The total size of the area required for the project, according to the Environmental Impact Assessment, is 4,700 hectares, approximately 11,614 acres, or roughly half the land area of Disney World. According to ProDESC, there were already at least 23 wind parks in the area since 2011 (ProDESC, 2018).¹⁸

EDF has had a presence in Mexico since 2001 through its subsidiaries EDF Energies Nouvelles (EDF EN), EDF EN of North America, EDF EN México S. de R.L., and Eólica de Oaxaca S.A.P.I de C.V.

Prior to the Gunaa Sicarú wind factory, the company had already built three wind parks, comprising over 180 turbines and with a combined installed capacity of 391.5 MW (ProDESC, 2018). These parks are the La Mata La Ventosa, Bii Stinu, and Santo Domingo. All three of these projects were built to supply energy to major companies including, but not limited to Mexico’s branch of the US retail giant, Walmart; one of the world’s largest steel producers and mining companies, ArcelorMittal; and beer producer, Grupo Modelo.

Despite that all three of these projects were built on indigenous lands in the Isthmus, none were subjected to or underwent consultation processes. Thus, the building of the Gunaa Sicarú was a continuation of these projects. In fact, the stated purpose of Eólica de Oaxaca S.A.P.I de C.V. is for the transmission, construction, and operation of the Gunaa Sicarú wind park.

In 2015, the Commission for Energy Regulation (CRE) granted authorization to EDF EN México S. de R.L. to supply energy to the wholesale market and to already existing interconnection contracts. This contract therefore permitted EDF’s subsidiary, Eólica de Oaxaca S.A.P.I de C.V., to participate in the country’s second electricity auction in 2016. Through this auction, Eólica de Oaxaca S.A.P.I de C.V. won a

¹⁷ Banner, P. September 2009. “Mexico Wind Farm Case Study.” USAID. http://www.energytoolbox.org/gcre/wind_case_study.pdf

¹⁸ ProDESC and the Heinrich Boll Foundation. November 2018. “Energías renovables y captura corporativa del Estado: el caso de Electricité de France en el Istmo de Tehuantepec, Oaxaca.”

contract to supply 252 MW of electricity through the Gunaa Sicarú wind factory project.

Shortly after, in January 2017, Eólica de Oaxaca submitted their Social Impact Evaluation to the Energy Secretary; by March 2017, Unión Hidalgo, with the help of ProDESC, filed a series of *amparo*¹⁹ petitions before the court for the lack of consultation and free, prior and informed consent in the development of the wind energy park.

Yet, before the court made a decision, on June 29, 2017 the CRE granted the operating license to Eólica de Oaxaca to begin construction on December 1, 2017. The stated goal was to begin operations on June 1, 2019 with an expected lifetime operating period of 30 years. The entire development process of the wind park to this point --from signing contracts and licenses with the federal government to receiving permits from the state government-- had neither involved nor consulted the Unión Hidalgo community.

The indigenous Zapoteca communities of Unión Hidalgo continued with forms of civic resistance and legal actions to oppose the EDF wind farm due to the failures by the state of Mexico and by the company to uphold the community's right to free, prior and informed consent. In September 2017, approximately 500 members of Unión Hidalgo marched in protests of the EDF project.²⁰ As the original *amparo* petition was still without ruling, on two separate occasions in February 2018, the community proceeded to lodge a complaint against EDF with the French National Point of Contact (NCP) of the Organization for Economic Cooperation and Development (OECD)²¹. The complaint included the allegation that the company did not uphold the community's right to free, prior and informed consent, but broadened it to state that EDF did not carry out a "proper human rights due diligence process, therefore failing to ensure that the Gunaa Sicarú wind park project did not violate human rights" (ECCHR, 2019).²²

To begin, the company should have consulted with the community regarding land rights for the project. Land in Unión Hidalgo is communal and thus decisions are not made by individual land owners, but made in community assemblies.²³ Yet, based on documents obtained from their environmental impact assessment, ProDESC

¹⁹ An *amparo* is a legal tool used to protect fundamental rights, such as the right to free, prior and informed consent.

²⁰ Bnamericas. 4 September 2017. "Planned Mexico wind farm sparks protests." <https://www.bnamericas.com/en/news/planned-mexico-wind-farm-sparks-protests>

²¹ Ministère de l'économie des finances et de la relance. 2020. "Specific circumstance "EDF and EDF Renouvelables in Mexico." Press Briefing. <https://www.tresor.economie.gouv.fr/tresor-international/pcn-france/circonstance-specifique-edf-et-edf-en-au-mexique>.

²² Ibid.

²³ The European Center for Constitutional and Human Rights (ECCHR). December 2019. "Civil society space in renewable energy projects: A case study of the Unión Hidalgo community in Mexico. Policy Paper." https://www.ecchr.eu/fileadmin/Publikationen/ECCHR_PP_WINDPARK.pdf

reported that the company was in negotiations with 143 land owners in and near the intended area of operation to buy the rights to their properties.

Moreover, community members experienced other violations of their rights directly connected to the project, including threats of violence from the company, land grabbing, complicity by municipal authorities who responded to inquiries about the company's presence on the land by stating the lands were being leased to wind companies, and company strategies to divide the community through 'charitable' donations and gifts in exchange for their support of the project's development.²⁴ Yet, as legal processes played out, the government continued to usher forward the project; complaints from the community continued and so did a decline in the state of their physical safety and security.

In March 2018, the Secretary of Energy (SENER) approved the Social Impact Evaluation submitted by the company approximately one year prior. Pre-consultations begin and the irregularities and inconsistencies in how "free" consultations are being carried out are noted by the Human Rights Ombuds Office of Oaxaca. By April 2018, SENER initiated a consultation process for the Guana Sicaru project, despite that it had already been approved and community opposition was very present. The National Human Rights Commission of Mexico, after being petitioned by the community, requests SENER immediately halt their engagement. Shortly after, the District Court of Oaxaca ruled to provisionally suspend the consultation process, which was confirmed again by the court in May 2018.

Between the time of SENER initiating consultations in April 2018, to June 2018, tensions and conflicts escalated dramatically. When consultations began, those who opposed and criticized the park were stigmatized as "enemies of development" and "anti-wind-energy activists" through radio and social media campaigns. These campaigns called on other community members to "dissuade them of their opposition"²⁵ and provided their personal information on air. Project opposers and their families experienced threats against their physical safety and intimidation. For example, on May 8, 2018, an unnamed person who was an outspoken project critic was hit by a car. It is alleged that this was intentional, not an accident.

By June 2018, urgent appeals for protections of land defenders were instigated by human rights organizations in the area. Oaxaca's Human Rights Ombuds Office issues an alert calling for increased protection for defenders, specifically for members of the Resistance Committee, for the "well-founded fear of confrontations and aggressions among the groups competing for the claim to implement the "Guana Sicarú" wind power plant, which may transcend other residents."²⁶

²⁴ Ibid.

²⁵ Ibid.

²⁶ Defensoría de los Derechos Humanos del Pueblo de Oaxaca. 15 June 2018. "Emite Defensoría Alerta Temprana por el caso de las centrales eólicas en Unión Hidalgo." <https://www.derechoshumanosoaxaca.org/noticia.php?idnoticia=832>

Furthermore, The Observatory for the Protection of Human Rights Defenders issued an international Urgent Appeal for the protection of members of the Resistance Committee and the Communal Assembly due to heightened escalations of conflict. The Appeal cited the car “accident” and the failure of the police to investigate or implement advanced protection measures for the victim, both of which were ordered by the Human Rights Ombuds Office of Oaxaca. During June 2018, the French OECD NCP publicly announced they are accepting the complaints made by the community and are working with the counterpart in Mexico on the case.

In October of 2018, the Federal Court of Mexico ordered authorities to undertake a consultation process in accordance with ILO 169 standards. Yet this didn’t actually solve the original problem and the security situation deteriorated more. In January 2019 one of the members of the community Resistance Committee experienced an attempted abduction. Three months later, this person also received a death threat leading up to the Committee’s next meeting.

The role of EDF in these human rights abuses through ‘divide and rule tactics’ was called out directly by community members opposing the project and from the various NGOs and human rights organizations working with them. A policy paper written by the European Center for Constitutional and Human Rights (ECCHR)²⁷ noted how company ‘charity’ efforts, such as giving donations to the local soccer team, painting a school, and promising to construct a well for the school, was on the condition of the support for the wind project by the receiver of that ‘charitable act.’

Moreover, the company was having closed door meetings with municipal authorities throughout 2017 to help form “certified committees” to participate in the forthcoming consultations with indigenous communities.²⁸

These company actions are divide and rule tactics that caused internal divisions in the community and increased violence. This was recognized by the UN Special Rapporteur in 2018. According to the Rapporteur’s report on the situation of human rights defenders in Mexico,

“[h]uman rights defenders from indigenous or rural communities point to the deliberate use of divide and rule tactics by the authorities and companies in order to achieve the approval of large-scale projects. The divisions caused by these projects have profound and negative effects on the strong culture of

²⁷ Lavite, C. and Müller-Hoff, C. December 2019. “Civil society space in renewable energy projects. A case study of the Unión Hidalgo Community in Mexico. Policy Paper.” ECCHR. https://www.ecchr.eu/fileadmin/Publikationen/ECCHR_PP_WINDPARK.pdf

²⁸ ProDESC and the Heinrich Boelle Foundation. November 2018. “Energías renovables y captura corporativa del Estado: el caso de Electricité de France en el Istmo de Tehuantepec, Oaxaca.” <https://dochub.com/chelseahodgkins/1XEpyxzwNgzq6WbRQZGd38/prodesc-investigacion-corporativa-edf-web-comprimido-pdf?pg=37>

consensus and collective solidarity in affected communities. The Special Rapporteur concurs with other United Nations experts who have observed that violence and harassment related to mega-projects authorized on indigenous lands without prior consultation and consent raise major human rights violations for indigenous peoples in Mexico.”²⁹

It is notable that the Rapporteur made his conclusions based on his mission to Mexico from 16 to 24 January 2017, which precedes the *amparo* petitions by the community and is approximately the same time as when EDF submitted the project’s Social Impact Evaluation to SENER.

Meanwhile, since the submission of the complaint through the OECD mechanism in February 2018, the French NCP had been coordinating with the Mexican NCP to engage the parties in a mediation procedure. Approximately a year and a half later, on July 29, 2019, ProDESC and the two defenders from Unión Hidalgo involved in the filing process, publicly announced their withdrawal from the procedure. The main reason cited by the group was due to “...participating *bona fides* in the procedure for almost a year and a half, with no substantial results in the mediation procedure.”³⁰

The public announcement, a total of three pages, goes on to describe how the examination by the French NCP of the restriction of “fundamental civil rights of indigenous people” was “rather superficial, pushing the complainants to get into an agreement when no substantial contribution to the resolving of the issues was made, and after only two meetings with the company held in the course of the procedure.”³¹ As an example, ProDESC noted how the French NCP did not address, or propose an action forward, regarding Urgent Appeals issued in June 2018 by both the World Organization Against Torture and the International Federation of Human Rights regarding the increasing risks and threats against human rights defenders in Unión Hidalgo due to wind development in the area, including the Gunaa Sucarú wind farm.

Such superficiality can be seen in the March 2020 recommendations to EDF released by the French OECD NCP regarding the case.

1) Adapt stakeholder engagement policies to meet the unique circumstances of the identified groups, including indigenous peoples.

“In particular, it will be important to make arrangements for engaging with all

²⁹ UN Human Rights Council. January 2017. “Report of the Special Rapporteur on the situation of human rights defenders on his mission to Mexico.” <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G18/037/94/PDF/G1803794.pdf?OpenElement>. See paragraph 47.

³⁰ OECD Watch. 29 July 2019. “Complaints withdraw from complaint process.” Hyperlink sited in “Documento column.” https://complaints.oecdwatch.org/cases-es/Case_494?set_language=es

³¹ Ibid.

stakeholders potentially concerned by these projects, particularly with those bearing social and cultural interests.”³²

- 2) **Create a Corporate Social Responsibility (CSR) Committee to manage external stakeholder relations.** “This would enable the Company to have a permanent and transparent framework for dialogue for all wind farm projects EDF Renewables is developing or plans to develop in Mexico, in particular Gunaa Sicarú.”³³
- 3) **To address issues of land tenure, consult with various stakeholders.** “When projects of the EDF group raise land-tenure issues linked with indigenous peoples, the NCP recommends to EDF Group and to ESF renewables to consult various stakeholders. In the case at hand...addressed in an appropriate framework in the context of the indigenous consultation in order to prevent future litigation.”³⁴

As you can see, the French NCP broadened the focus from the original nature of the complaint--that an indigenous community’s right to free, prior, and informed consent was violated-- to all stakeholders more broadly.

With the OECD grievance mechanism not delivering satisfactory solutions, ProDESC and ECCHR sent a letter to EDF asking the company to strengthen its human rights due diligence efforts. When that did not work, on October 13, 2020, ProDESC and ECCHR filed a civil suit against EDF in France under the French Duty of Vigilance Law.³⁵ The case alleges that the company did not fulfill its obligation under this law to prevent human rights violations, in this case the right to free, prior and informed consent, in their operations or in their supply chains (which includes suppliers and subcontractors). From the case summary, the lawyers representing the community state, “By neglecting the Unión Hidalgo community’s right to FPIC, the French energy firm might also be jointly responsible for the resulting damages to the community.”³⁶ The goal of the lawsuit is for EDF to improve its vigilance plan in regard to the project, as well as for the realization of the community’s call for the full suspension of the Gunaa Sicarú project until measures are implemented that

³² OECD France National Contact Point. 10 March 2020. “Final Statement of the French National Contact Point on the Specific Instance of EDF and EDF Renewables in Mexico.”

<https://www.tresor.economie.gouv.fr/Institutionnel/Niveau3/Pages/8fd9ecb1-2cb5-4e35-95b7-587b6793f341/files/bd60d487-1d03-44b1-9bf2-13ea02ed7f01>

³³ Ibid.

³⁴ Ibid.

³⁵ European Center for Constitutional and Human Rights (ECCHR). 2020. “WIND PARK IN MEXICO: FRENCH FIRM DISREGARDS INDIGENOUS RIGHTS.” <https://www.ecchr.eu/en/case/wind-park-in-mexico-french-firm-disregards-indigenous-rights/>

³⁶ ECCHR, ProDESC, and CCFD Terre Solidaire. 2020. “Case Report: Wind farm in Mexico: French energy firm EDF disregards indigenous rights.” https://www.ecchr.eu/fileadmin/Fallbeschreibungen/CASE_RESPORT_EDF_MEXICO_NOV2020.pdf

address the serious abuses of their fundamental rights to free, prior and informed consent and to safety.³⁷

As stated by one of the impacted human rights defenders taking part in this case:

“We are suffering as a result of this consultation process. The company could prevent these violations of our rights as indigenous people and support our community. We would be very grateful if EDF would make sure that, as a French company, it adheres to French standards and laws, and that it does not resort to the corruption that exists in Mexico. I am asking all French citizens to put themselves in our shoes. If they do so, they will see and feel our suffering. Then they can decide whether to support our community. We are asking for nothing more than respect for the rights of indigenous peoples and the environment. We want the community’s will to be respected without any external interference.”³⁸

The case is ongoing and outcomes still to be determined.

³⁷ ECCHR, ProDESC, and CCFD Terre Solidaire. 2020. “Case Report: Wind farm in Mexico: French energy firm EDF disregards indigenous rights.”
https://www.ecchr.eu/fileadmin/Fallbeschreibungen/CASE_RESPORT_EDF_MEXICO_NOV2020.pdf

³⁸ ECCHR, ProDESC, and CCFD Terre Solidaire. 2020. “Case Report: Wind farm in Mexico: French energy firm EDF disregards indigenous rights.”
https://www.ecchr.eu/fileadmin/Fallbeschreibungen/CASE_RESPORT_EDF_MEXICO_NOV2020.pdf

CHAPTER 4: Energy System Reforms: From a national monopoly to an open market drive by privatization & foreign investment

Overview

Examining the development and current state of renewable energy in Mexico cannot be divorced from an evaluation of its oil sector. The 2013 energy reforms were not just aimed at advancing renewable energy development; they also proposed multiple changes to the structure and operation of the national oil company, Petróleos Mexicanos (PEMEX). Moreover, in many ways, the decisions to amend Mexico's constitution so that energy development writ large--not just that of renewables--was opened to private, foreign investment and actors, was because of inefficiencies and corruption that evolved in PEMEX over time. This section offers a brief introduction of PEMEX in relation to its connection to the 2013 energy reforms, as well as an historical overview of key attempts to reform the energy sector. The section ends with a discussion of the 2013 reforms in relation to the renewable energy industry.

I. Oil: A Beacon of Sovereignty through Nationalization

In 1938, President Lazaro Cardenas nationalized Mexico's oil sector through creating PEMEX. It was seen as the ultimate sign of sovereignty and independence. Then and for decades to follow, the creation of PEMEX was a source of great pride for a country that had both regained political stability less than a decade prior and experienced varying extents of foreign interference in national resource development since at least the late 1800s.

The history of PEMEX is also important because in many ways it is the precursor to the reforms that created and continue to shape renewable energy development in Mexico. It is also a resource whose foundational development happened under a regime that destroyed communal land ownership, punished indigeneity, instituted elitism and hyper-wealth concentration, and was based on a model that was intensively reliant on foreign involvement (investment, development, and ownership).

These reforms enabled a regulatory regime that perpetuated abuse towards Mexico's rural, indigenous, and poor populations in the name of [energy] development. Many of these regimes, particularly around land ownership, indigenous rights, and the reliance on foreign investment for projects, have changed little, if at all. This historical development, therefore, is one form of evidence, from a regulatory perspective, that renewable energy development is occurring under the same extractivist models that drove fossil fuel development and is thus a part of the reason why the energy transition is having the same societal consequences as has fossil fuel development.

The Díaz Years (1876-1911): Privatization for domestic energy development

It is to be acknowledged that historical record shows oil and by-products of oil have been used in Mexico, particularly by indigenous civilizations, before Spanish colonization.³⁹ Because the focus of this thesis is on the development of the modern oil system of Mexico, details of this time are omitted and begin at the years of oil exploration and production at commercial scale.

Oil exploration for commercial production began in Mexico during the years of the Porfirio Díaz dictatorship, also known as the Porfiriato (1876-1911). The key goal of Díaz was to economically develop Mexico like large Western powers in Europe and the United States through the attraction and use of foreign capital. This goal was furthered by Los Científicos, a group of advisors during the Porfiriato, who were philosophically influenced by positivism and favored foreign intervention and application of foreign models in Mexico's development.⁴⁰ It was not just the oil sector to which this group applied these policies and models: they were also key for the expansion of networks of transportation, communications, and other industries. By 1910, the total investment of just the US across these sectors in Mexico reached more than \$1.5 billion.⁴¹

At least initially, the end goal was to develop an oil market for national consumption because energy costs were high.⁴² Díaz initiated a series of reforms aimed at attracting foreign investment. These reforms are summarized below⁴³:

- 1884, change of subsurface resource rights: now, owners of the surface property owned the subsurface resources below it;
- 1892, further expansion of the 1884 reforms to allow the free exploitation of subsurface resources, by the owner, without government permission or special concession;
- 1901, President obtains the right to award drilling concessions on federal lands without prior Congressional approval and to grant tax exemptions to firms ready to invest in oil exploration.

³⁹ Ryan, V. May 1979. "The Development of the Mexican Petroleum Industry to 1914." Thesis submitted at Rice University.

<https://scholarship.rice.edu/bitstream/handle/1911/104676/RICE2312.pdf?sequence=1&isAllowed=y>

⁴⁰ Encyclopaedia Britannica. 29 January 2009. "Científico, Mexican History."

<https://www.britannica.com/topic/cientifico>.

⁴¹ Encyclopaedia Britannica. 9 August 2019. "Porfiriato, Mexican History."

<https://www.britannica.com/topic/Porfiriato>

⁴² Haber, S., Maurer, N., & Razo, A. 2003. "When the Law Does Not Matter: The Rise and Decline of the Mexican Oil Industry." *The Journal of Economic History*, 63(1), 1-32. Retrieved March 11, 2021, from <http://www.jstor.org/stable/3132493>

⁴³ Haber, S., Maurer, N., & Razo, A. 2003. "When the Law Does Not Matter: The Rise and Decline of the Mexican Oil Industry." *The Journal of Economic History*, 63(1), 1-32. Retrieved March 11, 2021, from <http://www.jstor.org/stable/3132493>

- 1909, law fully changed to give “exclusive property” rights of subsoil resources, including minerals and fuels, to the surface landowner.
- Continued the land reform policies of *La Reforma* initiated by Benito Juárez, which was to separate ejidos, communally held land administered under traditional Indian systems of land tenure.

There were two notable effects of these reforms. First, land reforms left millions landless, concentrated ownership in the hands of wealthy, large-scale landowners and destroyed the culture and threatened the survival of thousands of indigenous peoples. By 1910, nearly 10 million people accounting for 95% of the rural population were dispossessed of land and approximately 5,000 indigenous communities were expropriated and many forced into servitude on the haciendas.⁴⁴ Thus, inequality that has continued in Mexico’s economic systems, was increased and further embedded.

Second, the tax exemptions and protection from outside competition enabled the market of oil exploration to flourish. It also helped highly concentrate its development in the hands of two private actors: Irish-American Edward L. Doheny and British Sir Weetman Pearson. In fact, by 1911, these two men controlled 90% of the oil output of Mexico, the fourth greatest global producer at the time.⁴⁵

Revolutionary Mexico (1910- 1929)

The Porfiriato ended when Porfirio Díaz was overthrown in 1911. The decades of oppression under his dictatorship and the foreign-centric development were key drivers of the Revolution that followed.

At the time of Revolution, the largely popularized and widespread sentiment that Mexico’s resources had become overly controlled by and profitable to foreigners. As it relates to the Revolution’s impact on energy, Díaz’ reforms that privileged oil companies, particularly those regarding property rights, went through a drastic overhaul. First, between the start of the revolution and official end of the Porfiriato (1911) until 1920, all governments attempted to increase oil taxes. These were implemented with varying degrees of success.

In 1917, a new Constitution was written. A primary focus of the new Constitution was the reform of the property rights system. Article 27 was initiated, one effect of which was to nationalize the wealth of oil and other subsoil materials, a complete deviation from those of the Porfiriato years. Enabling legislation was also written by Mexico’s governments to enforce these new property regimes, which greatly reduced the power and property rights of oil companies. This meant oil companies no longer had

⁴⁴ Encyclopaedia Britannica. 9 August 2019. “Porfiriato, Mexican History.”

<https://www.britannica.com/topic/Porfiriato>

⁴⁵ Ibid.

the rights granted under Diaz, thus setting the stage for the reclamation of Mexico's energy resources.

Post-Revolution Mexico from the 1930s-1980s: Nationalization

During the latter years of the Revolution, unrest and strikes by labor unions were increasingly more common. The labor strikes would ultimately usher in the expropriation of foreign oil companies and the full nationalization of the sector by the Mexican government.

In April 1915, and again in 1916 and 1917, refineries in Tampico and Minatitlán owned by the company Mexican Eagle experienced strikes that spread to other company's operations. These strikes resulted in the local government intervening to mandate a 25% wage increase.⁴⁶ Additional strikes won worker's rights to the 8-hour work day and the first collective bargaining agreement in the history of industry in Mexico.

The labor unions continued to demand greater authority and control over operations and their rights as workers. As strikes continued, companies started to refuse certain demands from the labor union, such as control over hiring and firing. In November 1936, the Sindicato de Trabajadores Petroleros de la República Mexicana demanded a wage increase, housing benefits, guaranteed severance packages, and other provisions, a total cost of which the Federal Labor Board estimated to be \$7.3 million.⁴⁷ The oil companies claimed that these costs would actually total \$10.7 million and that they could not afford the requests in either case.⁴⁸

President Lázaro Cárdenas appointed a special commission to intervene in the dispute. The commission upheld that the companies could afford the \$7.3 million benefits package and shortly after on March 2, 1938, the Federal Labor Board announced that it would grant the unions the \$7.3 million increase and greater control over personnel choices, a decision upheld by the Supreme Court. Companies reacted by shutting down plants, closing wells, and refusing to comply, to which the Board responded by suspending contracts. As workers began to take control over operations and assets, the President announced on March 18, 1938 the nationalization of the Mexican oil sector through the expropriation of nearly all foreign oil companies and their assets.

⁴⁶ Maurer, N. September 2011. "The Empire Struck Back: Sanctions and Compensation in the Mexican Oil Expropriation of 1938." *The Journal of Economic History*, Vol. 71, No. 3. <https://www.hbs.edu/businesshistory/Documents/maurer-article-mexican-oil.pdf>.

⁴⁷ Ibid.

⁴⁸ Gordon, Wendell. 1941. "The Expropriation of Foreign-Owned Property in Mexico." Washington, DC: American Council on Public Affairs. Pg. 112.

The sector remained nationalized throughout the 1980s. Various Presidential administrations attempted to re-introduce foreign investment in the oil sector in the late 1980s due to economic crises, as seen in the next section.

II. A History of Reform: Drivers & Attempts

Reform Attempt #1: President Carlos Salinas de Gortari, 1988-1994

Getting to the 2013 Energy Reform specifically takes us back to the administration of President Carlos Salinas de Gortari, from 1988 to 1994. Mexico was in an economic crisis prior to the election of Salinas de Gortari, beginning in earnest during the six year term of President Miguel de la Madrid (1981-1988).

The 1980s in Mexico were characterized by a devastating economic crisis, which in part was driven by the political economy of energy in the country. In the preceding decades, particularly the 1940s to 1970s, government avoidance of policy and institutional reforms regarding, but not limited to, tax, budgets, the economy and social services, and the over reliance of the public budget on revenues from oil exports made Mexico extremely vulnerable. As summarized by expert political scientist, Wayne A Cornelius, the outcome was that “Mexico’s public sector expanded steadily, while the public sector’s revenue-raising capabilities lagged behind. The result was ever-larger government deficits, which were financed increasingly by borrowing abroad” (Cornelius, 1985).⁴⁹

When Salinas de Gortari assumed the presidency, the crisis was in full swing and austerity measures initiated in the de la Madrid administration were still in place. More than 50,000 federal jobs were eliminated; workers wages froze while inflation grew; and foreign debts accumulated to unsustainable levels.⁵⁰ Economic liberalization, which focused on expanding privatization and increasing foreign involvement in various sectors, was pursued as a strategy to stabilize the economy and restore economic growth. More than 80%, up to 85% by some estimates⁵¹, of the 1,155 government-owned businesses were sold or dissolved;⁵²

⁴⁹ Cornelius, W. 1985. “The Political Economy of Mexico under De la Madrid: Austerity, Routinized Crisis and Nascent Recovery.” *Mexican Studies/Estudios Mexicanos*, Winter, 1985, Vol. 1, No. 1 (Winter, 1985), pp. 83-124.

⁵⁰ Editorial Board. 29 January 2009. “Miguel de la Madrid president of Mexico.” *Britannica Encyclopedia Online*. <https://www.britannica.com/biography/Miguel-de-la-Madrid>

⁵¹ Smolksi, A. 9 October 2014. “Privatizing Mexico.” *Jacobin Magazine*. <https://www.jacobinmag.com/2014/10/privatizing-mexico>

⁵² Depalma, A. 27 October 1993. “Going private--A special report; Mexico sells off state companies, reaping trouble as well as profit.” *New York Times*. <https://www.nytimes.com/1993/10/27/world/going-private-special-report-mexico-sells-off-state-companies-reaping-trouble.html>

In 1992, the reforms to the Electric Energy Public Service Law were passed. The reforms declared the following as no longer considered public service^{53, 54}:

- (1) through self-supply contracts;
- (2) cogeneration systems;
- (3) to produce energy to sell to CFE;
- (4) as small power producers (less than 30 MW capacity);
- (5) for import or export

In other words, private energy generators could contribute to the national grid in these specific areas. The cumulative effects of this were the de-monopolizing and de-nationalizing of the electricity sector.

One stated reason for these changes was that they were critical to help meet growing demand and to provide affordable electricity and green power options. But, these 'critical changes' were specifically in reference to, in service to and benefit of the needs of private businesses, not the general public.

In 1993, the North America Free Trade Agreement (NAFTA) was passed, which contributed to the opening of Mexico's energy sector to private investment. Under section 6, "an enterprise may acquire, establish, and/or operate an electrical generating facility in Mexico to meet the enterprise's own supply needs."⁵⁵ That is to say, a private company, industrial producer, or otherwise commercial entity, could build their operation in Mexico without having to worry about the area being already connected to or easily accessible to the national energy grid, because they could make arrangements for self-supply, which opens up more areas as potential hosts for investment.

Reform attempt #2: President Ernesto Zedillo, 1994-2000

Shortly after the passage of the 1992 Electric Energy Public Service Law, in 1999 President Ernesto Zedillo proposed constitutional reforms to Articles 27 and 28⁵⁶, to enable greater opportunities for private investment in the electricity and oil sectors.

⁵³ Wood, D. October 2018. "Mexico's New Energy Reform." The Willson Center. https://www.wilsoncenter.org/sites/default/files/media/documents/publication/mexicos_new_energy_reform.pdf

⁵⁴ Diario Oficial. 23 December 1992. "Secretaría de Energía, Minas e Industria Paraestatal." Published in the Official Register. http://www.diputados.gob.mx/LeyesBiblio/abro/lspree/LSPEE_ref04_23dic92_ima.pdf

⁵⁵ USAID. September 2009. "Mexico Wind Farm Case Study." http://www.energytoolbox.org/gcre/wind_case_study.pdf

⁵⁶ Institute of Legal Research and the National Autonomous University of Mexico. 19 February 2021. "Constitution of the United Mexican States." <https://www.juridicas.unam.mx/legislacion/ordenamiento/constitucion-politica-de-los-estados-unidos-mexicanos#10562>

Article 27 establishes the nation of Mexico as the sole owner and rights holder of the country's land and its associated territorial resources (water, minerals, soil, etc.).

“Artículo 27: La propiedad de las tierras y aguas comprendidas dentro de los límites del territorio nacional, corresponde originariamente a la Nación, la cual ha tenido y tiene el derecho de transmitir el dominio de ellas a los particulares, constituyendo la propiedad privada.”

Article 27: The ownership of the lands and waters comprised within the limits of the national territory, corresponds originally to the Nation, which has had and has the right to transmit ownership of them to individuals, constituting private property. "

The Nation (that is to say the people, not just the institution of the State) has the authority to sell these rights for development, but that development was required to be for public utility and with appropriate compensation. It allows for the expropriation of land for private purposes but only in the interest of development for the “public interest” and of “social benefit.”⁵⁷ It had the effect of legitimizing the control of ejido (communal) lands of the tenants, not the government⁵⁸; thus the rights to trade, sell, and develop land was in the hands of the inhabitants.

Article 28 prohibits monopolization and monopolistic practices. Pre-2013 reforms, it also expressly stated its protection, through law, of consumers and their interests.

“Artículo 28: En los Estados Unidos Mexicanos quedan prohibidos los monopolios, las prácticas monopólicas, los estancos, las condonaciones de impuestos y las exenciones de impuestos en los términos y condiciones que fijan las leyes. El mismo tratamiento se dará a las prohibiciones a título de protección a la industria.”

Article 28: In the United Mexican States, monopolies, monopolistic practices, tobaccoists, tax exemptions and tax exemptions are prohibited under the terms and conditions established by law. The same treatment will be given to prohibitions for the protection of the industry.

The reforms aimed to increase private sector participation in electricity generation, transmission and distribution. The rationale given was twofold: first, the growing demand for electricity and second, a lack of public financial resources to fund the

⁵⁷ Institute of Legal Research and the National Autonomous University of Mexico. 19 February 2021. “Constitution of the United Mexican States.”

<https://www.juridicas.unam.mx/legislacion/ordenamiento/constitucion-politica-de-los-estados-unidos-mexicanos#10562>

⁵⁸ White, C. 13 April 2018. “Land Reform & National Development in 20th Century Mexico.” New York University. <https://wp.nyu.edu/steinhardt-gfcmexico2018/2018/04/13/land-reform-nationalist-development-in-20th-century-mexico/>.

needed investments to meet demand.⁵⁹ The end goal stated publicly by the administration was not necessarily to completely privatize the electricity sector; but rather, to increase privatization for the corresponding private capital it would contribute to systemic upgrades.

The proposal drew controversy and ultimately, these proposed reforms were rejected by partisan politics.

Reform attempt #3: President Vicente Fox, 2000-2006

President Vicente Fox continued the work of his predecessor to open the energy sector to private involvement. The National Development Plan of 2001-2006 established the goal that by 2006, electricity companies would be high level producers that supply sufficient capacity, have quality standards and competitive prices.⁶⁰ To achieve this, the President stated that the electricity sector needed to be modernized to “guarantee its viability in the short and long term” and to “maintain and to expand the energy supply” (Fox, 2002).⁶¹

According to the administration, achieving this vision would require a new investment strategy that included the private sector and the country’s presence in international markets, as well as a restructuring of current management institutions, like the Comisión Federal de Electricidad (CFE), to make their supply more reliable, efficient, economically viable and of a greater quality. Some of the specific proposals included⁶²:

- to open the electricity distribution market to private capital;
- to create a separate market for power generators and large consumers (2,500 MWh or more annually);
- to reorganize the management of the sector via transform financial responsibilities of the Comisión Federal de Electricidad (CFE) and thus transfer its control of the National Electrical System to the Centro Nacional de Control de la Energía (CENACE);

As with the efforts of President Zedillo, the Fox administration’s efforts relied on amending Articles 27 and 28 of the Constitution. Some experts at the Wilson Center

⁵⁹ Breceda, M. “Debate on reform of the electricity sector in Mexico. Report on its Background, Current Status and Outlook.” Prepared for the North American Commission for Environmental Cooperation. <http://www3.cec.org/islandora/es/item/1611-debate-reform-electricity-sector-in-mexico-en.pdf>

⁶⁰ México Secretaría de Gobernación. 11 January 2002. “Programa Sectorial de Energía 2001-2006.” http://dof.gob.mx/nota_detalle.php?codigo=737302&fecha=11/01/2002

⁶¹ Ibid.

⁶² Rodriguez-Padilla, V. 2003. “The electricity market of Vincente Fox.” Published in *El Cotidiano*, Vol. 19, No. 117, January-February 2003. pp. 7-19. <https://www.redalyc.org/pdf/325/32511702.pdf>

have commented that these efforts were really considered a “possible back door” to the ultimate goal of opening up the oil and gas sectors to private actors.⁶³

Regardless of the intent, like President Zedillo before him, reforms were again denied by partisan politicking.

Reform attempt #4: President Felipe Calderón Hinojosa, 2006-2012

In 2008, President Calderón proposed a legislative reform package to both reform Pemex and to promote the use of renewable and sustainable energies.

The package had two new renewable energy laws: *La Ley para el Aprovechamiento de Energías Renovables y el Financiamiento de la Transición Energética* (Law for the Use of Renewable energy and the Financing of the Energy Transition) and *La Ley para el Aprovechamiento Sustentable de la Energía* (the Law for the Sustainable Use of Energy).

As summarized by the International Renewable Energy Agency (IRENA), the laws regulated the use of renewable energy and renewable energy technologies by non-public (i.e. private) actors.⁶⁴ It was Mexico’s first framework for the renewable energy industry, the basis for long-term CO2 reductions, and a key driver of the increased private sector interest and involvement in renewable energy development.

They were key drivers of the “impressive” growth in *private sector* renewable energy, notably in wind energy investments, under the Calderón administration. Official statistics from SENER show that in 2008, baselines for renewable energy as a percentage of installed capacity and of energy generation, were relatively small. As a percentage of installed capacity, renewable energies, absent solar, accounted for 3.3% of national energy; whereas renewable energy as a percentage of generation, again absent solar, was around 3.9%.⁶⁵

Indicator	Type of Renewable Energy	Baseline of 2008
Percentage of Installed Capacity, renewable Energy	Wind	0.15%
	Small Hydroelectric	0.65%
	Geothermal	1.66%
	Biomass and biogas	0.86%

⁶³ Ibid.

⁶⁴ IRENA (2015), Renewable Energy Prospects: Mexico, REmap 2030 analysis. IRENA, Abu Dhabi. www.irena.org/remap

⁶⁵ SENER. Junio 2013. “Informe sobre la participación de las energías renovables en la generación de electricidad en México al 31 de diciembre de 2012.” La Secretaría de Energía. Pg. 2. <https://www.gob.mx/cms/uploads/attachment/file/228/2doSemestre2012.pdf>

	Total	3.3%
Percentage of electric generation, renewable energy	Wind	0.09%
	Small Hydroelectric	0.64%
	Geothermal	2.86%
	Biomass and biogas	0.33%
	Total	3.9%

Source: SENER, 2008-2021

For additional context, in 2009, SENER and the German organization Gesellschaft für Technische Zusammenarbeit (GTZ) undertook a collaborative study, “Energías Renovables para el Desarrollo Sustentable en México 2009” (*Renewable energy for Sustainable Development in Mexico*)⁶⁶. The installed generating capacity at the time of study was outlined in the report and is demonstrated below. These capacities are approximate matches for the SENER report previously mentioned; in other words, the installed capacity lines up accurately, but not exactly, with the statistical baselines of the 2008 SENER model.

Technology	Installed Capacity
Wind	170 MW
Solar ⁶⁷	18.5 MW ⁶⁸
Hydroelectric	11.4 GW (300MW for small hydro for public businesses and 90M for those that are for private self generation)
Biomass	100 PJ
Geothermal	960 MW

Source: SENER & GTZ, 2009

⁶⁶ GTZ & SENER. 2009. “Energías Renovables para el Desarrollo Sustentable en México 2009.” https://www.scribd.com/doc/67889959/Energias-Renovables-para-el-Desarrollo-Sustentable-en-Mexico?secret_password=1uwi3aqp2jgpcko4nsy#fullscreen&from_embed

⁶⁷ The report notes that during the time of study (2008-2009), much of the installed solar in the country were in rural areas isolated from the national electric grid and were installed by government programs for rural electrification. See report page 23.

⁶⁸ This figure does not include the installed capacity mentioned in the report for solar water heaters. An additional 41 MJ of capacity is installed and used for solar water heaters.

By the end of 2012, renewable energy installed capacity accounted for 20.55% of total installed capacity and 14.90% of associated generation in Mexico.⁶⁹ At this point, installed and generating capacity were largely led by hydroelectricity and geothermal energy.

The progress to enable renewable energy development made under President Calderón Hinojosa, in addition to global shifts of energy systems, laid the foundation for its continued advancement under proceeding President Peña Nieto.

The 2013 Energy Reform: President Peña Nieto, 2012-2018

The 2013 energy reform under Peña Nieto was as though putting a bow to package the many years of attempts. First, the oil sector was floundering while the public budget remained largely reliant on its revenues. When Peña Nieto took office, oil production had peaked in 2004 and steadily declined each subsequent year. By 2012, crude oil production had shrunk by 24% in less than a decade.⁷⁰ Exports were also in an unstable state, as annual fluctuations were common. The value of the sector had also come to be largely propped up by liquid gas, as oil production and exports fell and prices experienced shocks. Between 2004-2012, liquid gas value grew by 34%, adding MM\$ 22.3 in profits.

Despite that the sector was declining, the national budget was still structured to be heavily reliant on its revenues. The cost of electricity added additional strain to current business and industry operations, and their ability to develop further. Costs were relatively high and variable: prices changed as frequently as from month to month, thus making any form of future planning for investment and development near impossible.

Leading up to the 2012 election, Mexico was still largely in economic recession. Economic growth has not much improved since 2000, unemployment and underemployment were both high at 5% and 8.3% respectively, and real wages had shrunk by 3.5% in the six years since 2006.⁷¹

Despite that these numbers largely reflected the failings, rather than successes, of the neoliberal policy agendas of the 1980s-2000s, the desire to complete previous decades of economic liberalization was strong. The energy sector was key to bringing forward the country's next phase of liberalization.

⁶⁹ SENER. Diciembre 2013. "Informe sobre la participacion de las energias renovables en la generacion de electricidad en Mexico, al 30 de junio de 2013." Secretaria de Energia. Pg. 8. <https://www.gob.mx/cms/uploads/attachment/file/226/1erSemestre2013.pdf>

⁷⁰ PEMEX. 2013. "Anuario Estadístico 2003-2013." PEMEX. Pg. 4. https://www.pemex.com/ri/Publicaciones/Anuario%20Estadistico%20Archivos/anuario-estadistico_2003-2013.pdf,

⁷¹ Weisbrot, M. and Ray, R. June 2012. "The Mexican Economy and the 2012 Elections." Center for Economic and Policy Research. <https://www.cepr.net/documents/publications/mexico-2012-06.pdf>.

President Peña Nieto's were the first Constitutional reforms for energy in 60 years.⁷² Whereas the predecessors discussed here could not amend the constitution, Nieto successfully amended Articles 25, 27, and 28 to allow private participation in the electricity and hydrocarbon sectors. These amendments removed the additional barriers to private sector participation that remained following the 1992 Electric Energy Public Service Law.⁷³ Specifically, these changes resulted in the following⁷⁴:

- enabling private investment and competition in electricity generation;
- giving CENACE the authority to implement a competitive electricity market (including for renewables);
- allows for joint-endeavors between CFE and private actors for electricity transmission and distribution;
- CFE was also reorganized to have the freedom to form partnerships as needed.

The effects of these reforms on renewable energy development in Mexico cannot be overstated. According to statistics from SENER, in 2014, just one year after the official passage of the legislative reforms, installed capacity grew 11% to 16,240 MW and to represent 25% of total installed capacity. That same year, generation capacity grew 39% to over 55,000 GWh, and renewables represented 18% of total energy generation.⁷⁵

The price of electricity tariffs also decreased: residential consumers saw an approximately 6% price drop, while commercial consumers and industrial users saw decreases of 9.5% and 20% respectively.⁷⁶ Moreover, the markets created by the reform attracted literal billions in investment. “The clean energy auctions conducted between 2016 and 2018 yielded nearly \$10 billion in new investments and added 8 GW in wind and solar capacity” (Schechter and Cortiñas, 2021).⁷⁷

But at what cost?

⁷² Gasca Lara, K. October 2015. “Reforma Energetica en Mexico.” SENER. https://www.senado.gob.mx/comisiones/cambio_climatico/reu/docs/presentacion7_071015.pdf

⁷³ Wood, D. October 2018. “Mexico’s New Energy Reform.” Wilson Center Mexico Institute. https://www.wilsoncenter.org/sites/default/files/media/documents/publication/mexicos_new_energy_reform.pdf

⁷⁴ Gasca Lara, K. October 2015. “Reforma Energetica en Mexico.” SENER. https://www.senado.gob.mx/comisiones/cambio_climatico/reu/docs/presentacion7_071015.pdf

⁷⁵ Ibid.

⁷⁶ Gasca Lara, K. October 2015. “Reforma Energetica en Mexico.” SENER. Pg. 12. “Precios medios de energia electrica por sector tarifario.”

https://www.senado.gob.mx/comisiones/cambio_climatico/reu/docs/presentacion7_071015.pdf

⁷⁷ <https://www.brinknews.com/mexico-swims-against-the-renewable-energy-tide/>

CHAPTER 5: Implications of Reforms & large-scale, private development

To frame this discussion, I want to acknowledge and note that current President Andrés Manuel López Obrador has made several changes that have impacted, and even undone some aspects of the 2013 energy reforms, including Constitutional provisions, this section maintains focus on the implications of the reforms prior to these changes. My intent in doing so is to be able to draw connections between the legislative and regulatory changes and the practices by companies and the government that have abused human rights in the process of renewable energy development.

A new model

In short, the energy reforms of 2013 created a new model for generating, transmitting, distributing, and commercializing electric energy through renewables. This model is what I argue has embedded regulations that lead to state sponsored violence in renewable energy development.

Following the passage of the reforms, the Government of Mexico issued an extended explanation of the reforms, including their purpose, the Constitutional changes and secondary implementing legislation. In this document, the government diagnoses that there are four key challenges, notably around the high cost of electricity and inefficiencies of current supply chains, facing the energy sector of Mexico that were “putting a brake” on the economy:

- 1. High cost of electricity, which puts strain on economic development:** According to government reporting, average rates for electricity in Mexico are 25% higher when compared to the United States, even with subsidy; without this subsidy, electricity would reportedly be 73% more expensive. More than 20% of energy for public service was generated from fossil fuels, which were significantly higher in cost than clean energy and natural gas (Government of Mexico, 2014, 19).⁷⁸ Because electricity is critical for business, industrial, and other commercial activities,
- 2. State budget restrictions, which limited opportunities to build lower-cost sources:** CFE had nearly exclusive rights to supply larger-scale electricity to the public; however these projects were limited in terms of planning capacity and state budget restrictions. Therefore, the pace of development of large-scale projects for had become bottlenecked which was problematic because it

⁷⁸ Government of Mexico. “Reforma Energética.” https://www.gob.mx/cms/uploads/attachment/file/10233/Explicacion_ampliada_de_la_Reforma_Energética1.pdf.

slowed the creation of sources that could generate lower-costing electricity (Government of Mexico, 2014, 20).⁷⁹

3. **Lack of investment in the transmission network, which prevented interconnection of areas with high clean energy potential:** Investments in transmission infrastructure was a key barrier to eliminate in order to develop solar and wind energy projects. Without transmission networks, the energy from these projects could not be interconnected to the grid.
4. **Inefficiencies of distribution networks, leading to lost energy and revenues:** Government data described that energy losses in Mexico are “around twice the average of countries in the Organization for Economic Cooperation and Development (OECD)” (Government of Mexico, 2014, 20).⁸⁰ Apparently, billing and collection problems meant that more than 15% of CFE-produced energy did not collect its costs, which is unsustainable.

Constitutional Reforms

Constitutional reforms, specifically to Articles 25, 27, and 28, were made as part of the legislative process to, apparently, address these concerns.

On reforming Article 25

Article 25 defines the State’s responsibility for national development.

In December 2013, which was the second reform to the article that year, the Article amendments emphasized the duty of the public sector indicated in Articles 27 and 28. Broadly those duties are to plan and control the national electrical system.

Article 25 also says that companies (social and private sector) will be supported and promoted under criteria of social equity, productivity and sustainability, seemingly as a means of accountability. The second half of the Article lays the groundwork for a legal and regulatory environment for private sector development:

“The law will encourage and protect the economic activity carried out by individuals and will provide the conditions for the development of the private sector to contribute to national economic development...” (UNAM, 2013).⁸¹

⁷⁹ Government of Mexico. “Reforma Energética.”

https://www.gob.mx/cms/uploads/attachment/file/10233/Explicacion_ampliada_de_la_Reforma_Energética1.pdf.

⁸⁰

https://www.gob.mx/cms/uploads/attachment/file/10233/Explicacion_ampliada_de_la_Reforma_Energética1.pdf
Government of Mexico. “Reforma Energética.”
https://www.gob.mx/cms/uploads/attachment/file/10233/Explicacion_ampliada_de_la_Reforma_Energética1.pdf.

⁸¹ Constitution of Mexico. Article 27, “(Amended by Decree published in the Official Gazette of the Federation on December 20, 2013).”

<https://www.juridicas.unam.mx/legislacion/ordenamiento/constitucion-politica-de-los-estados-unidos-mexicanos#10562>.

This reform is basically reifying the role of the State to decide and direct national electricity priorities and how that will get done, while also enshrining the right to economic development and the role of the private sector in that into the Constitution.

On reforming Article 27

Recall that Article 27 of the Constitution establishes the *nation* of Mexico as the sole owner and rights holder to the country's land and its associated natural resources. Under this Article, the Nation can sell the rights or expropriate the land, but such activities were required to be for projects of public utility, social benefit, and with appropriate compensation.

While the reforms uphold the basic structure of Article 27, it introduces that the State can independently have contracts with individuals to carry out infrastructure development (financing, maintenance, management, operation, and expansion) necessary to provide public electricity transmission and distribution services on behalf of Mexico. More specifically, the Article reform also states that the terms through which the State can enter into such agreements will be established by the law, which will also determine how those actors may participate in other activities of the electricity industry. (UNAM, 2013).⁸²

Thus, now the State has the Constitutional right to sell land and dictate its use without public agreement. It shrinks the State's accountability to the Nation because it is giving the State the full authority to determine and act on its sole interpretation of what is in the public good.

On reforming Article 28

Prior to the reforms, Article 28 prohibited monopolization and monopolistic practices, and protected public consumers and their interests. The changes to Article 28 through the Energy Reforms of 2013 essentially changed the definitions of what's considered a monopoly under State involvement, stated the role of the State's central bank in national development, and established the National Hydrocarbons Commission and the Energy Regulatory Commission (CRE) as energy regulatory bodies.

Under the reforms, "the planning and control of the national electric system, as well as the public service of transmission and distribution of electrical energy..." are deemed functions and strategic areas not considered monopolies when the State exercises exclusively. It is hard not to see this as the State making a Constitutional exception that changes their accountability to the public, and the very notion of consumer protection within electricity.

⁸² Constitution of Mexico. Article 27, "(Amended by Decree published in the Official Gazette of the Federation on December 20, 2013)."
<https://www.juridicas.unam.mx/legislacion/ordenamiento/constitucion-politica-de-los-estados-unidos-mexicanos#10562>.

The creation of a central bank, autonomous in its functions and administration, has a state purpose of ensuring the stability of national currency and its purchasing power. It also established a public trust, known as the Mexican Petroleum Fund for Stabilization and Development, with the purpose of receiving, administering, and distributing the income from allocations and contracts. The bulk of this income is to be distributed based on a priority system of payments established in contracts, transferring funds for the stabilization of oil revenues, to research on hydrocarbons and energy sustainability, to the Federal budget, long-term savings, and then to social programs, including a universal pension system and investment in projects of science, technology, innovation and renewable energies.⁸³

Implementing the changes: Secondary Legislation

Enabling legislation of the reforms includes the Electricity Industry Law, the Law on Coordinated Regulatory Bodies, the Foreign Investment Law, and the Geothermal Energy Law, which regulates the geothermal industry but is not going to be explored further considering the data collected for this thesis did not result in any relevant findings in that sector.

The Electricity Industry Law

A new regulatory framework for the governance of the electricity industry was proposed under the Electricity Industry Law. Its main goals, broadly speaking, were to create the legal conditions that would open the electricity system to the participation of private companies and individuals; ensure that these investments generate income; and establish the roles and responsibilities of government and private actors in the creation and regulation of new clean energy markets and the energy prices for end users.

To do this, the legal framework of the secondary legislation was set on a foundation to “guarantee the competition between public and private companies in a framework of equity, and the guarantees the use of transmission and distribution networks based on non-discriminatory rules” (Government of Mexico, 2014, 22). Equity in this sense is not referring to who has access to the electricity that is produced, but rather the planning and financial resources to create the project in the first place: “In this sense, private participation in generation will no longer depend on the planning and financial resources of the CFE, but it will be able to carry out projects independently, assuming the costs and risks of their decisions” (Ibid).

There are five key changes related to renewable energy development that resulted from the reforms:

⁸³ Mexico Secretary of Governance. 20 December 2013. “DECRETO por el que se reforman y adicionan diversas disposiciones de la Constitución Política de los Estados Unidos Mexicanos, en Materia de Energía.” Section titled “Fourteenth.” http://www.dof.gob.mx/nota_detalle.php?codigo=5327463&fecha=20/12/2013.

- Opened oil & electricity sectors to private investment;
- Created wholesale renewable energy markets & auctions;
- Legally established “guaranteed competition between public and private companies”;
- Constitutional changes to land management practices & definitions of monopolies;
- Altered roles and structure of key government regulators and sector administrators.

More broadly, it did the following:

- Maintained the planning and control of the electrical system, and public transmission and distribution services as national strategic areas;
- Created a legal framework to guarantee competition between public and private entities in the energy development;
- Maintained CFE’s role as provider of public transmission and distribution services and expanded its role to design a regulation that guarantees network expansion and efficient operation;
- Gave CENACE the role of planning transmission networks and SENER the authority to approve such plans in order to also coordinate wholesale markets;
- Assigned CENACE the responsibility to set interconnection requirements and give instructions for its implementation in an attempt to require transparency around conditions of access;
- Established contracting agreements between the State and individuals for their participation in expanding and improving transmission and distribution networks;
- Maintained that commercialization is open to private sector participation;
- Created classification of users as ‘qualified’ and ‘basic’ supply to determine their eligibility to participate in wholesale markets and their end supplier;
- Created a wholesale electricity market for energy transactions to take place and to determine energy prices. The final prices for service to the public will be set by the Ministry of Finance and Public Service and the CRE will regulate transmission and distribution rates;
- Creation of a Universal Electric Service Fund to finance electrification in rural and marginalized urban areas; and
- Creation of Clean Energy Certificates scheme to guarantee demand for renewable energy projects and assure the required income to finance investments.

The end result was a legal and regulatory environment that, as legal scholar and professor Shalanda Baker notes, created more protections for companies than it did communities. Law and regulation became key tools for enabling human rights abuses, rather than preventing them.

In order to open the electricity system to the participation of private companies and individuals, however, the Law guaranteed the establishment of a legal framework that “guarantees the competition between public and private companies in a framework of equity, and the guarantees the use of transmission and distribution networks based on non-discriminatory rules” (Government of Mexico, 2014, 22). Equity in this sense is not referring to who has access to the electricity that is produced, but rather the planning and financial resources to create the project in the first place: “In this sense, private participation in generation will no longer depend on the planning and financial resources of the CFE, but it will be able to carry out projects independently, assuming the costs and risks of their decisions” (Ibid).

The Law on Coordinated Regulatory Bodies

The stated goal of the Law on Coordinated Regulatory Bodies is to create a regulatory body that can effectively implement and administer the electricity sector before more actors participate. The CRE was established as a regulatory body that is a member of the Federal Public Administration. It was proposed for the CRE to be a member of the Coordination Council of the Energy Sector, created to ensure sector coordination and collaboration. The key roles of the Council is to make SENER energy policies known to the Council, to analyze the work programs of CRE (and the CNH) and their execution to ensure compliance with energy policy, implement institutional information and systems, and to analyze specific cases that may affect the development and compliance of the energy policy and to propose coordination mechanisms.

The Foreign Investment Law

In order to develop national productive chains, the Ministry of Economy, with the opinion of SENER, will be responsible for defining strategies for the promotion of industrial activities related to the sector, as well as for promoting direct investment in the national territory.

To formulate and monitor these strategies, the Ministry of Economy must integrate and to preside over an advisory council together with representatives from SENER, CNH, CRE, academics, and industry representatives. Finally, the creation of a Public Trust to Promote the Development of National Suppliers and Contractors of the Energy Industry is envisaged, which will be a fund specialized in the development of national suppliers and productive chains in the energy sector. To this end, it is proposed that said Trust grant financing and support to companies to carry out certification, training or research programs that promote their development and strengthen their participation in industry activities. In this sense, the Public Trust to Promote the Development of National Suppliers and Contractors of the Industry

Discussion of impacts

Privatization of land is really a regime that promotes the maximum opening of public spaces for private use and investment.

Pragmatically speaking, the State is disproportionately better resourced than the average ejido owner(s). Even withstanding the reforms, it has greater access, control, and influence over national financial resources, the development, administration, and governance of laws and development processes, and it's development agenda has the added support of the private sector and foreign actors. promotes the maximum opening of public spaces for private use and investment.

A stated objective and fundamental premise of the energy reforms was to “promote development with social responsibility and protect the environment (*Impulsar el desarrollo con responsabilidad social y proteger al medio ambiente*).”⁸⁴

An important aspect of the reforms is that in addition to creating renewable energy markets, it enables more exploration and exploitation of Mexico's oil and gas resources. This is directly out of alignment with Mexico's stated reasons for removing GHG emissions for public and environmental benefit; but because the focus of this thesis is on how the reforms set up violent renewable energy development, you can read the summary of the reforms for more information if interested.⁸⁵

“Strategic National Development” as a contributor to land expropriation

A key principle of the secondary implementing legislation was that energy was marked as ‘strategic’ for national development. According to the government, any land or areas marked for this ‘strategic’ development had a social utility and public good that overrode any already existing, individual use of the land.

The changes to Constitutional Article 28 further embedded this lack of proportionality. Prior to the changes under the energy reforms, Article 28 prevented monopolies and monopolistic practices, as well as protected public consumers. The government changed Article 28 to say that the State exercising sole authority over certain areas deemed strategic national development is not a form of monopolization. The Mexican Center for Environmental Law (CEMDA) noted that the idea of ‘strategic’ national development overriding other land uses implies a lack of proportionality that can cause damage and impairment to human rights. This is partly

⁸⁴ Government of Mexico. 2014. “Reforma Energética.” https://www.gob.mx/cms/uploads/attachment/file/10233/Explicacion_ampliada_de_la_Reforma_Energética1.pdf

⁸⁵ Government of Mexico. 2014. “Reforma Energética.” https://www.gob.mx/cms/uploads/attachment/file/10233/Explicacion_ampliada_de_la_Reforma_Energética1.pdf

what we saw in the case of Union Hidalgo, whereby collectively held lands largely used for subsistence livelihoods were expropriated for large scale development for electricity for the national grid.

Article 27: Disproportionately expropriates land from and impacts indigenous peoples and peasant populations

Article 27 was created in 1917 as a direct result of the Mexican Revolution's emphasis on land restitution for peasant peoples. It was an important Constitutional protection for rural and indigenous communities to maintain their legitimized controls over ejido lands, and thus protect their cultures and livelihoods. Changes to this Article disproportionately impacts indigenous and peasant populations because ejidos make up more than half of Mexico's land.

Under the reform to Article 27, the government introduced the 'State' as a rightful territory owner. The State can also, as a result of the reforms holistically, enter into contracts with private companies. Legal scholar and professor Shalanda Baker notes how the changes to land reforms proved problematic through secondary legislation. While the reforms explicitly required private companies to engage in potential energy development activities and work closely with communities to acquire land for a project, the law also provides that when the private entity cannot reach agreement with a community member, it has the legal right to pursue claims against the landholder. CEMDA goes on to say that this is comparable to expropriation because the owner's property rights are restricted and there's not really an option to refuse to assign their right or to limit it. In the case of Union Hidalgo specifically, this put a double bind on ejido structures: on the one hand laws upholding communal land administration were directly undermined by this law, while on the other hand, even if the company had consulted the community instead of individual landowners, the company because of the reforms, has the legal right to override the community's right to say no and pursue the claims to the property in the courts.

Lack of social protections & avenues for redress: Human Rights violations without avenues to access justice

Legal advocates, like CEMDA, noted that the laws don't include any instruments for social participation, transparency, accountability, or mechanisms to resolve conflict or access justice when a grievance occurs. This is at least partly responsible for why human right violations are pervasive in renewable energy development. This also helps to explain, though not fully, why violations of indigenous rights, notably free, prior and informed consent, occur: social protections are not explicit and, because other aspects of the reforms around land and territory rights have restricted the protections of indigenous peoples and their environments. As pointed out by the UN Special Rapporteur on the Rights of Indigenous Peoples, "reforms facilitating the energy transition in Mexico have not sufficiently incorporated indigenous fundamental rights, although the natural resources needed for these projects –

including the land on which these wind parks are built – are often located in indigenous territories.”

CHAPTER 6: Lessons Learned & Conclusions

Reflecting on Mexico's reforms in the context of a Just Transition, what can the global community learn?

The concept of a just transition was born from collaboration between labor unions and environmental justice communities in order to move from extractive economies to regenerative ones. I use the model from the Climate Justice Alliance (below) as a framework for discussing lessons learned from Mexico's energy reforms.

Analysis, Framework and Strategy

JT Framework Design: Wisdom of Frontline communities and leaders with the support of Movement Generation

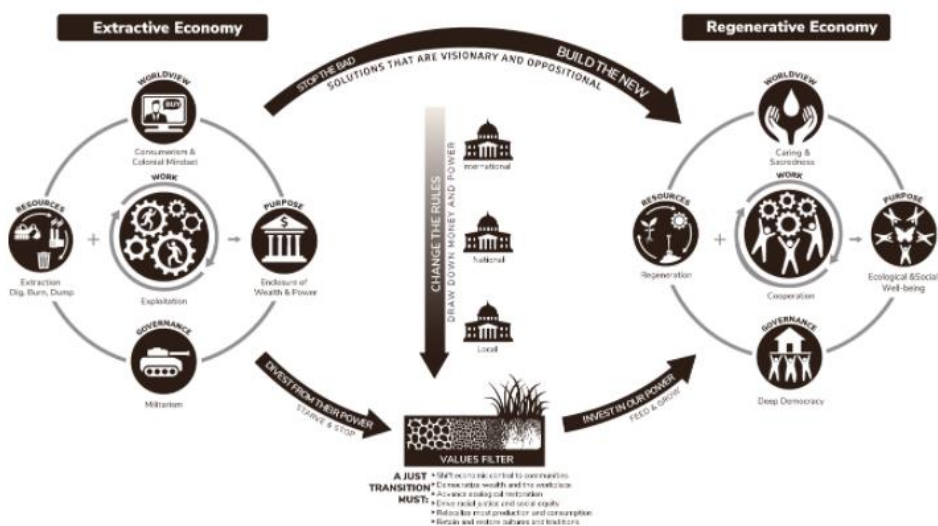


Image from Climate Justice Alliance. <https://climatejusticealliance.org/just-transition/>

The Framework

The Just Transition model identifies that the global economy is rooted in a model built on extraction for profits and industrial development. A self-perpetuating cycle drives this model: Natural resources are extracted to satisfy a worldview and lifestyle based on consumerism and a colonial mindset, which fuels the enclosure of wealth and power to few, which is protected and upheld by militarized governance structures. Exploitation of workers is a key driver of this cycle.

Shifting to a regenerative economy requires a radical power shift. First decentralizing power and money from international and national institutions to community-based

structures is key. This can be done through legislative reforms that change the rules and other tactics that literally divest power and resources from extractive models. At the bottom of the diagram featured above, there is a 'values filter' that provides criteria for any action that contributes to a just transition. These are:

- Shifting economic control to communities;
- Democratizing wealth and the workplace;
- Advancing ecological restoration;
- Driving racial justice and social equity;
- Relocalizing most production and consumption;
- Retaining and restoring cultures and transitions.

These actions then contribute to power-building that can create a regenerative economy. A regenerative economy is based on a worldview of caring and sacredness-- caring for one another and the earth and the sacredness of these connections. The purpose of the economy, then, is for social and ecological well-being governed by deep democracy and fueled by a model that emphasizes resource regeneration, rather than depletion under extractive models. Work is based on collaboration between workers, rather than their exploitation.

Lessons Learned

One key Just Transition principle is that solutions need to be context specific. Through this lens, lessons learned can be drawn on a macro-scale, rather than necessarily issue specific recommendations around Mexico specifically.

Lesson 1: We need to interrogate energy models in order to shift them towards a rights-respecting model: On ownership and power

Globally, the way renewable energy development is being disproportionately informed, shaped, and controlled by the same companies and regulators who put us into the climate crisis in the first place. In April 2020, Edwardes-Evans and Slawinski wrote in S&P Global,

“in the last three years, global oil and gas companies have branched out into new sectors, ramping up investments in the power sector, low-carbon technologies and mobility...”⁸⁶

For example, French oil company, Total, won the largest contract in Europe for EV charging, is partnering with Groupe PSA on a pilot EV battery facility, and is involved in a 2 GW solar project in Spain.⁸⁷ British oil giant, BP, owns 43% of the global solar

⁸⁶ Edwardes-Evans, H. and Slawinski, E. 23 April 2020. “Cross currents: Big oil and the energy transition.” S&P Global. <https://www.spglobal.com/en/research-insights/articles/cross-currents-big-oil-and-the-energy-transition>.

⁸⁷ Ibid.

developer Lightsource BP.⁸⁸ While these investments do not accumulate to much-- oil majors own less than 1% of wind and solar systems globally⁸⁹-- spending by the fossil fuel industry on clean energy is increasing. According to Goldman Sachs, in 2020, European oil companies increased renewables spending to 15% from 2%-5% just the year before.⁹⁰

This is worrying. Fossil fuel corporations are profiting at both ends of the spectrum with little accountability: while they are profiting from their investments in emerging clean energy markets, they continue to disproportionately invest in and profit from technologies and operations that created global warming in the first place.⁹¹ In 2020, the US oil and gas companies spent \$112.5 million lobbying lawmakers, a figure that does not include campaign contributions to legislators who oppose environmental policies out of favor with the industry.⁹² In Europe, a coalition of climate NGOs reported that the five major oil and gas corporations and their lobby groups spent at least a quarter of a billion euros since 2010 on influencing European decision-makers.⁹³

In Mexico, according to the Business and Human Rights Centre renewable energy and human rights abuses database, the most abusive companies in renewable energy development follow this pattern.

Most abusive renewable energy developers in Mexico

⁸⁸ Ibid.

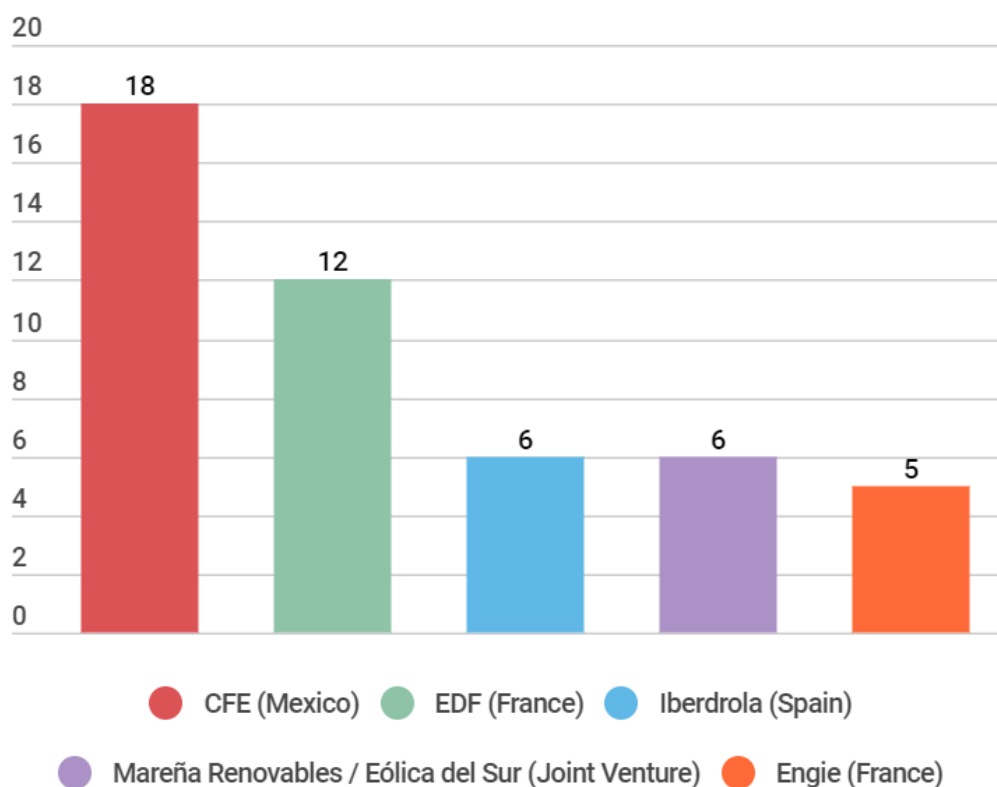
⁸⁹ Vaughan, A. 6 February 2018. "BP aims to invest more in renewables and clean energy." The Guardian. <https://www.theguardian.com/business/2018/feb/06/bp-aims-to-invest-more-in-renewables-and-clean-energy>.

⁹⁰ McDonnell, T. 24 December 2020. "2020 was the year clean energy started to beat Big Oil." Quartz. <https://qz.com/1948018/2020-was-the-year-clean-energy-started-to-beat-big-oil/>

⁹¹ Vaughan, A. 6 February 2018. "BP aims to invest more in renewables and clean energy." The Guardian. <https://www.theguardian.com/business/2018/feb/06/bp-aims-to-invest-more-in-renewables-and-clean-energy>.

⁹² Open Secrets. 2020. "Industry Profile: Oil and Gas." Open Secrets Lobbying Database. <https://www.opensecrets.org/federal-lobbying/industries/summary?cycle=2020&id=E01>.

⁹³ Massiot, A. 4 March 2020. "Climate action: the latest target of Europe's fossil fuel lobbyists." The Guardian. <https://www.theguardian.com/world/2020/mar/04/climate-action-the-latest-target-of-europes-fossil-fuel-lobbyists>.



While 90% of EDF’s electricity production, according to the company, is net-zero,⁹⁴ the company still owns coal plants, is actively developing contentious nuclear power plants, and owns oil and gas assets. This is saying nothing of the company’s subsidiaries in France and globally that could be engaging in fossil-fuel based electricity generation and distribution. Admittedly, the company has been steadily trying to sell off their oil and gas assets,⁹⁵ the most recent deal being this year (2021) with the sale of its West Burton B gas-fired plant in the United Kingdom.⁹⁶ While the company is making efforts to remove its name, slowly but surely, from oil and gas development, it is still not totally divorced from profiting from it.

Similarly, Spanish company Iberdrola has been featured for its high levels of spending and investments in renewables, which in 2020 were reported to exceed the combined planned investments of Europe’s top oil companies.⁹⁷

⁹⁴ EDF. “Producing a climate friendly energy.” <https://www.edf.fr/en/the-edf-group/producing-a-climate-friendly-energy>

⁹⁵ Nair, D. and Benmeleh, Y. 14 June 2019. “Energean bids for EDF oil and gas assets.” World Oil. <https://www.worldoil.com/news/2019/6/14/energean-bids-for-edf-oil-and-gas-assets>

⁹⁶ Reuters. 12 April 2021. “EDF sells West Burton B gas-fired power plant in UK to investor EIG.” <https://www.reuters.com/article/edf-divestiture/edf-sells-west-burton-b-gas-fired-power-plant-in-uk-to-investor-eig-idUSL8N2M30CU>

⁹⁷ Bousso, R. 5 November 2020. “Iberdrola’s green spending spree eclipses European Big Oil’s plans.” <https://www.reuters.com/article/idUSKBN27L1MM>

Yet natural gas is still a major resource used by the company to supply electricity to customers. While natural gas emits less CO2 emissions than other fossil fuel resources--up to 60% by some estimates⁹⁸-- leakages of methane, a more potent, longer-term-heat-trapping gas, occur in the drilling, extraction and pipeline transport of natural gas. Reporting from the Union of Concerned Scientists notes that methane is “34 times stronger than CO2 at trapping heat over a 100-year period and 86 times stronger over 20 years.”⁹⁹ Engie’s energy mix is similar: while the company is in the process of phasing out its coal-fired plants, the company is actively increasing the development of gas-fired plants. In fact, the company reported in 2020 that it was the number one natural gas transportation network in Brazil.¹⁰⁰ While both companies take advantage of the new market opportunity of renewable energy, they are actively contributing to global warming through gas-powered electricity production and distribution.

Green energy is being promoted as a means to alleviate the social ills of capitalism; but in fact, the international and domestic institutions guiding its development are not putting in place mechanisms that fundamentally challenge, change, or shift the aspects of capitalism that have created the very ecological destruction and the social and economic inequalities we are in. Large scale projects under this model also disproportionately go to supplying industrial and commercial needs, not those experiencing energy poverty, or even the average consumer.

This model of development does not align with a just transition. Instead, it actively closes spaces of civic participation; destroys the public good through lobbying against climate legislation; and takes resource wealth from communities to centralize wealth in a select few corporations contributing to the destruction of the only habitable place currently known for humans, animals, and plants.

At the very minimum, according to energy justice scholarship, a rights-respecting energy model considers and embodies four key elements: Procedural Justice, or participation in decision-making; Distributional Justice- sharing of energy system benefits and burdens; Recognition Justice- acknowledging marginalization and social inequalities; Restorative Justice, or addressing issues of past harms; and a new element, added by Shalanda Baker, with which I agree, is centering the voices and experiences of marginalized peoples in policy making.¹⁰¹ Under an energy justice model, current models of large-scale development would shift structures and

⁹⁸ Union of Concerned Scientists. 19 June 2014. “Environmental Impacts of Natural Gas.” <https://www.ucsusa.org/resources/environmental-impacts-natural-gas#:~:text=Natural%20gas%20is%20a%20fossil,new%20coal%20plant%20%5B1%5D>.

⁹⁹ Union of Concerned Scientists. 19 June 2014. “Environmental Impacts of Natural Gas.” <https://www.ucsusa.org/resources/environmental-impacts-natural-gas#:~:text=Natural%20gas%20is%20a%20fossil,new%20coal%20plant%20%5B1%5D>.

¹⁰⁰ Engie. 2020. “Key Figures.” https://www.engie.com/sites/default/files/assets/documents/2020-10/ENGIE-ChiffresCle2020-EN-P_a_P_0.pdf

¹⁰¹ Baker, S. 2020. “Revolutionary Power: An Activist’s Guide to the Energy Transition.” Page 31.

outcomes regarding ownership, financing, end use, and long-term management. Globally, there are examples of small-scale energy systems functioning successfully.

Alternative Ownership Models: *Piitapan Solar Project, Alberta, Canada*

In 2015, the Lubicon Lake Band peoples of Little Buffalo, Alberta installed the 20.8 kilowatt Piitapan Solar Project. The project is 100% community owned and operated and will electrify the new health centre there and feed excess energy into the grid.

The community is abutted by fossil fuel development and extraction and has suffered multiple large crude oil spills on their territory. In fact, estimates show that oil companies have taken \$14 billion in resources from their territory without paying royalties to the community, but to the government of Alberta instead.¹⁰² The project overcame the lack of available government funding with donations, grants, and financial commitments from W Dusk Energy, BullFrog Power, Honor the Earth Foundation, Greenpace and Jane Fonda.¹⁰³

Alternative Benefits and Revenue Models: *Kipeto Wind Energy Project, Kajiado County, Kenya*

The Kipeto Wind Power Project is a 100 MW project that covers approximately 70 square kilometers of Masai lands. It has been noted as a case study in best practices in community engagement. Notably, the company has spent over KES 14 million (over US \$130,000) on consultations. They have also continually engaged in consultations with individual land owners, the community as a whole, environmental NGOs, and the Kajiado County government, over at least eight years of the project feasibility study and were continuing at the time of the case study writing in August 2017.

While there are no laws in Kenya that govern community benefits from investments in their territories, KEL allocated landowners a 5% share of the company, without requiring them to invest any equity. In doing so, the community receives a portion of revenues from project electricity sales. The revenues, which are projected to equal roughly US \$1 million annually for the next twenty years, will be directed to a Community Trust. These shares are in addition to the tiered leasing payments they are making to landowners who consented to host the project on their lands, as well as the rebuilding of homes for people who will have to be relocated from their original

¹⁰² Beaumont, H. 20 August 2015. "This Aboriginal Community is Launching a Solar Project in the Heart of Canada's Oil Sands." Vice News. <https://www.vice.com/en/article/a39egj/this-aboriginal-community-is-launching-a-solar-project-in-the-heart-of-canadas-oil-sands>.

¹⁰³ Strutzenberger, M. 21 August 2015. "Creating a New Story in Lubicon Land." Axiom News. <http://axiomnews.com/creating-new-story-lubicon-land>.

home for the project's development. The company stated that their goal in doing so was to generate the goodwill necessary for the project's success.¹⁰⁴

These are just two of many examples of renewable energy development undertaken under a model of energy justice and the positive outcomes.

Lesson 2: Changing land use patterns, policies, and regulations to protect the rights of indigenous peoples

A just transition to a regenerative economy emphasizes ecological and social wellbeing. Fundamental to actualizing this would entail a greater emphasis on efforts to reduce the amount of land used for large scale projects through reduced energy consumption and use of energy and increasing energy efficiency. Other strategies include developing projects on repurposed surfaces, such as rooftops, and formerly industrialized lands that are no longer viable for any other form of development.

Moreover, redefining what is considered a legitimized "productive" use of land is needed. Communally held lands used for spiritual, cultural, and agricultural purposes should not be de-legitimized and deconstructed through regulations in order to provide energy for industrialization.

Land tenure needs to be secured through the full recognition, legally and in practice, of customary and local community rights, especially of indigenous peoples. Indigenous peoples constitute approximately 6% of the world's population and it is estimated they own between 50-65% of land globally.¹⁰⁵ According to the World Resources Institute, local communities and indigenous peoples have formal legal ownership of 10% of land and some degree of government-recognized management over an additional 8%.¹⁰⁶ The remaining one third or more land is held informally, under customary tenure arrangements, which increases their vulnerability to displacement and other rights abuses discussed today.

It's also worth noting that guaranteeing land tenure is in the best interest of companies and governments as well; establishing and enforcing legal recognitions of land rights give communities' a formalized legitimacy that can give greater levels of confidence to enter into land use agreements in a project.

¹⁰⁴ Sena, K. August 2017. "Kipeto Wind Energy Project: A case study on best practice in community engagement in energy projects." Business and Human Rights Resource Centre. https://media.business-humanrights.org/media/documents/files/documents/Kipeto_Wind_Power_Project_Final.pdf.

¹⁰⁵ Veit, P. and Reytar, K. 20 March 2017. "By the Numbers: Indigenous and Community Land Rights." World Resources Institute. <https://www.wri.org/insights/numbers-indigenous-and-community-land-rights>.

¹⁰⁶ Ibid.

A good starting point for creating and assessing land tenure options, context withstanding, as discussed in a recent briefing by Forest Peoples Programme¹⁰⁷, are looking at the 1) length of the bureaucratic process, 2) the actual rights granted to rights holders, 3) the need for legal status for rights holders, 4) its ability to be implemented, and 5) enforceability. I would also add to this list mechanisms for quickly and transparently resolving conflict & addressing grievances, as well as laws de-criminalizing protest by land defenders.

Finally, the gaps in current laws and practices that prevent upholding the rights of indigenous communities to self determination, which includes free, prior and informed consent, need to be closed. Even with international and local standards for consultation and consent, companies and governments are falling short in their implementation.

Free, prior and informed consent does not equal a community's right to a *negotiation* in pre-approved development or getting a community to say yes through directly or indirectly coercive means. At the minimum, it means BOTH the right of a community to say yes to a project and therefore be an active partner in it's development along all stages AND the right to say no. Legislation should be pursued to explicitly state and codify the right to say no by indigenous peoples and rural communities, an idea proposed through the Alternative Information & Development Centre of South Africa¹⁰⁸. This principle is embedded in free, prior and informed consent; the added advantage is that in being so explicit, it puts pressures on corporations and government agencies to respect indigenous knowledge and customary law.

¹⁰⁷ Forest Peoples Program. February 2021. "Tenure Options - Toward the Recognition of Customary and Local Community Rights to Land and Forest." <https://www.forestpeoples.org/en/lands-forests-territories/briefing-paper/2021/tenure-options-toward-recognition-customary-and-local>.

¹⁰⁸ Jankie, R. 5 October 2020. "The Right to say No is about balancing power!" Alternative Information and Development Centre of South Africa. <https://aidc.org.za/the-right-to-say-no-is-about-balancing-power/>