

# Power to the people?

How World Bank financed wind farms fail communities in Mexico

November 2011



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## About the World Development Movement

The World Development Movement (WDM) campaigns for a world without poverty and injustice. We work in solidarity with activists around the world to tackle the causes of poverty. We research and promote positive alternatives which put the rights of poor communities before the interests of the powerful. Our network of local groups keeps global justice on the agenda in towns and cities around the UK.

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## Executive summary

The La Mata and La Ventosa wind park in the state of Oaxaca is the World Bank's flagship Clean Technology Fund (CTF) project in Mexico. The UK government has provided £385 million in capital to the CTF from its overseas aid budget, 14% of the CTF's total funding.

This study shows that:

- The wind park will produce 67.5 MW per year, enough to power 160,000 homes in a state where around 7 per cent of the population lack access to electricity.<sup>1</sup> It will not power any homes as all of the electricity will be sold at a discounted rate to Walmart, the world's largest company (and owner of Asda in the UK). This is achieved by exploiting a loophole in Mexico's energy laws, which allows Walmart to officially claim that it has produced the power itself. In fact, the company owns just a nominal stake in the wind park, which is 99 per cent controlled by EDF (Électricité de France), the world's largest electricity utility.<sup>2</sup>
- The World Bank hopes that the project will encourage a broader transformation in the Mexican electricity sector, where the state controlled company currently charges companies more for their electricity than domestic consumers. Local activists are demanding cheaper electricity to avert energy poverty, but "self supply" projects following the Walmart EDF model only reduce costs for corporations and could worsen energy inequalities.
- The CTF is providing a \$15 million concessional loan to the project via the International Finance Corporation (IFC), the private sector arm of the World Bank. The payment was approved on the basis that it was difficult to "obtain debt financing" from other sources.<sup>3</sup> In fact, over 90 per cent of the \$152 million cost of setting up the project has been met by loans from multilateral development banks – clear evidence that it was viable without CTF support.
- The project also misrepresented its finances to gain additional funding from the UN's Clean Development Mechanism (CDM). This is expected to generate around \$12 million worth of carbon credits, which will be used by EDF to delay cleaning up the company's greenhouse gas emissions in Europe.
- The World Bank hopes that proof of the profitability of the project will encourage up to 2,000 MW of further private sector wind projects in the Isthmus of Tehuantepec, where the wind park is located.<sup>4</sup> These plans have met with considerable local resistance, however, amidst concerns that they form part of an attempt "to grab indigenous lands and convert them into resources for the market."<sup>5</sup> These concerns are grounded in a 20 year history of megaprojects planned in the Isthmus, which promote an export led development model rather than protecting indigenous cultures, enhancing local livelihoods or promoting broader access to sustainable energy.

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## What is the Clean Technology Fund?

The Clean Technology Fund (CTF) is a fund to demonstrate and develop “low-carbon” technologies.<sup>6</sup> It was launched at the July 2008 meeting of the G8, based upon an initial proposal from the USA, UK and Japan.<sup>7</sup> The CTF is the largest of the World Bank administered Climate Investment Funds (CIFs) with \$4.4 billion pledged to date.<sup>8</sup> The UK has provided £385 million (\$615 million), although this is recycled from the overall aid budget rather than representing new money.<sup>9</sup>

The CTF has so far planned investments in 12 countries: Colombia, Egypt, Indonesia, Kazakhstan, Mexico, Morocco, Philippines, South Africa, Thailand, Turkey, Ukraine, and Vietnam. In addition, a regional investment plan for solar power in the Middle East and North Africa will cover Algeria, Egypt, Jordan, Morocco and Tunisia; further investments in Nigeria, Chile and India are also under consideration.<sup>10</sup> The World Bank and the International Finance Corporation, its private sector arm, are responsible for 16 of the 21 projects currently approved, with the remainder administered by the African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development and the Inter-American Development Bank.<sup>11</sup>

The stated aim of the CTF is to provide funding for the demonstration and deployment of clean technologies.<sup>12</sup> It has been widely criticised, however, for failing to define what is meant by “clean” investments. The creation of a “technology neutral” funding source was a deliberate choice, enabling the CTF to support fossil fuel and carbon intensive projects as well as renewable energy.<sup>13</sup>

The CTF has also been criticised for creating a structure for climate financing outside of the UN framework and within a process dominated by G8 countries.<sup>14</sup> In common with the other CIFs, it has been a major beneficiary from the \$30 billion in “fast start” financing between 2010 and 2012 promised in the Copenhagen Accord, a nonbinding agreement reached at the UN climate change summit in December 2009.<sup>15</sup> A new Green Climate Fund was subsequently agreed at UN climate change talks in Cancún in 2010. The CTF has a “sunset clause,” which would enable it to be rolled into the new Fund once it is in place. Although this is presented a measure to avoid pre-judging an international agreement, it can also be viewed as means of positioning the design of the CTF (and other CIFs) as a model for the design of the new Fund.

This case study shows that the CTF is a flawed model for climate financing, with inherent biases towards funding energy utilities and the private sector in middle income countries. In dispersing mostly loans rather than grants, the CTF risks loading further debt onto poorer countries contrary to the original purpose of climate financing, that it should go some way to redressing the disproportionate role played by industrialised countries in causing climate change.

This study also demonstrates the centrality of the World Bank although, as the House of Commons environmental audit committee recently pointed out, this “is not the most appropriate channel for future UK climate finance.”<sup>16</sup>

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## Wind energy and export led development in Oaxaca

The Isthmus of Tehuantepec in the state of Oaxaca is one of the world's best wind resources, according to the IFC and the other multilateral development banks promoting the La Mata and La Ventosa Project.<sup>17</sup> The banks' documents describe "a natural wind tunnel for air currents," making the Isthmus an ideal location for renewable energy generation.<sup>18</sup> But it is economics, rather than the region's physical geography, that is driving the rush of infrastructure development in this 120 mile strip of land between the Pacific Ocean and the Gulf of Mexico.

In the mid 1990s, Mexican President Ernesto Zedillo launched a megaproject for the "development" of the Isthmus of Tehuantepec through investments in infrastructure (new roads, rail, canals and airports) and industry.<sup>19</sup> The aim was to create a new *maquiladora* zone with factories producing goods for export, and improved routes for the export of petrochemicals and agriculture via a "corridor" that could compete with the Panama Canal.

These developments continued apace, but a change of government saw them incorporated into the broader Plan Puebla Panama (PPP), announced by then President Vicente Fox in 2001. The PPP presented the Isthmus of Tehuantepec as one end of a network of new roads, oil pipelines and energy transmission lines (sometimes referred to as a "dry canal" or "land bridge"), developed with the stated aim of opening up the region for foreign investment as a means to address what Fox called its "underdevelopment."<sup>20</sup> In this respect, the PPP was the material complement to the Mexican government's free trade agenda, which sought to consolidate the North American Free Trade Agreement of 1994 with a broader Free Trade Area of the Americas.

The PPP quickly faced stiff community resistance, in response to which it was rebranded.<sup>21</sup> Parts of it were renamed as the "Mesoamerican Integration and Development Project" after President Fox was voted from office.<sup>22</sup> But the development model upon which it was based remained in tact: regional integration for the pursuit of an export led development agenda. Energy market transformation was a crucial pillar of this proposal.

In 2006, a broader social movement resisting neoliberal development and regional government corruption emerged in Oaxaca, sparked by a teachers' strike that occupied the main square of the state capital until it was brutally repressed and fired upon by local police. The protests continued, coalescing into an umbrella organisation called the Assembly of the People of Oaxaca, which "took over local radio and television stations, blocked the state's executive, judicial and legislative offices, built and protected barricades across the metropolitan region, led massive marches of 800,000 people and demanded the removal of the governor, Ulisses Ruiz."<sup>23</sup> It also called for popular assemblies to be established across the state. The central demands included an end to neoliberal development policy, and the PPP.

The Front of the Peoples of the Isthmus in Defence of Land (Frente de Pueblos del Istmo en Defensa de la Tierra), which is resisting the expansion of wind projects in the Isthmus, forms part of this movement.<sup>24</sup> It is not opposed to wind power per se, but is "against the land grabbing by companies and against the impact that it will have on the life, culture and territory, due to the way in which the projects have been drawn up."<sup>25</sup> Ties have also been formed with other movements, for example local

teachers' unions joined protests when Ruiz and President Calderon visited the Isthmus wind parks in 2009.<sup>26</sup>

## Wind energy in Mexico

Energy production in Mexico accounts for 24 per cent of the country's greenhouse gas emissions.<sup>27</sup> This figure is due, in no small part, to the country's reliance on the combustion of oil, gas and coal in power stations, with these "thermal" sources accounting for just over 75 per cent of current electricity production.

The expansion of wind energy is presented as a means to reverse this trend. However, as Bettina Cruz Velazquez of the Assembly in Defence of the Land and Territory of Juchitán points out, "the development of wind power does not mean that other polluting sources of energy will be closed."<sup>28</sup> Her assessment is backed up by statistics from SENER, the energy secretariat charged with defining Mexico's energy policy. In 2008, SENER estimated that Mexico's total electricity generation capacity would increase from just over 51,000 MW to over 60,000 MW by 2017.<sup>29</sup> In this scenario, it projected that wind production would increase from 85 MW to 592 MW.<sup>30</sup> The Clean Technology Fund has set itself a target of "accelerating" the development of this 500 MW of new installed wind capacity.<sup>31</sup>

Where would this new power production go? The IFC claims that it would make for a cleaner energy mix, and thereby help to tackle climate change. A part of the increase will go to displacing older gas and oil plants, which would indeed serve this purpose. But investing in new wind power is not the same as making overall electricity production cleaner if the overall energy mix does not significantly alter. In fact, SENER projects that the growth of wind power will be outstripped by increases in the generating capacity of fossil fuel power plants (mainly gas).

The electricity needs of Mexico's population do not justify such a production increase. Velazquez notes that the communities in Oaxaca that will host the new wind parks "do not have high levels of energy consumption", and that they generally "live well" without needing these new developments, meaning that "the calls for more energy production are false."<sup>32</sup> Her argument, which goes to the heart of the debate on Mexico's wind park expansion, is that the power supplied by the new turbines does not go to communities living in the area, but rather undermines their low impact livelihoods in ways that benefit export led development and multinational corporations.

Here, again, the figures back her up. The development of wind power in Mexico is "unlikely to be driven by domestic demand" since its 50,000 MW capacity is estimated to be 40 per cent above current load (the baseline for energy use).<sup>33</sup> Indeed, the country has been a net electricity exporter since 2003.

This export of electricity is likely to undergo further expansion.<sup>34</sup> To this end the state electricity provider has signed electricity export agreements with Belize, Guatemala and Los Angeles, California. The Oaxaca wind projects form part of a larger grid construction scheme called Sistema de Interconexion Electrica de los Paises de America Central, or System for Interconnection of Electricity in Central American Nations, which was previously part of the PPP, and is funded by the Inter-American Development Bank. This involves the construction of a 1,800 km transmission line to connect the electricity grid between Mexico, Costa Rica, El Salvador, Honduras, Nicaragua and

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Panama. As USAID notes, “This line will enable Mexico to greatly increase its exports and provides an incentive to develop power projects.”<sup>35</sup>

A major stimulus for renewable energy projects in Mexico also comes from Californian electricity policy, with increased exports expected to contribute to a 33 per cent target for “renewable” energy supply to the state by 2020.<sup>36</sup>

### **Expanding the private sector**

The expected growth in exports from Mexico forms part of a broader opening up of the country’s electricity sector, actively encouraged by the World Bank and other multilateral development banks.

Until 1992, the Mexican government held a monopoly on both electricity generation and supply, both of which were channelled through the Comisión Federal de la Electricidad (CFE). The state utility has been far from a model of energy access, and has contributed to regional inequalities whereby the poorer south eastern states (including Oaxaca) provide a disproportionate amount of the country’s electricity while at the same time having the highest proportion of households without electricity access.<sup>37</sup> A more positive aspect of the current system is that the state-owned utility has been able to control electricity prices. Industry and corporations are charged more than residential users, which has played some role in reducing energy poverty.<sup>38</sup>

This system has come under considerable pressure in recent years, with the Peoples’ Assembly in the Isthmus resisting recent rises in consumer electricity prices.<sup>39</sup> The backdrop to these increases is a neoliberal vision of replacing state support for electricity with a model of “full cost recovery,” a key condition for electricity markets to be opened to competition.<sup>40</sup>

Since the 1990s, there have been consistent attempts to increase the role of the private sector in Mexico’s energy sector, although the public ownership of electricity is enshrined in the constitution and attempts at privatisation have met with considerable opposition.<sup>41</sup> There has, however, been a gradual increase in private energy generation, mostly by European based energy multinationals, which now account for around 20 per cent of production.<sup>42</sup>

The public utility remains in control of supply which restricts the profits that private energy companies can make in the country – with one major exception. The 1992 electricity law contains a major loophole surrounding “self supply” (*autoabastecimiento*), which allows companies to generate electricity for their own use without having to sell it back to the grid.

### **Wind power in the Isthmus**

The first seven wind turbines were erected in La Venta, Oaxaca in 1994, producing 1,575 kW of electricity. These have since been supplemented by approximately around 500 MW of installed wind capacity. Further developments by private sector producers, often using the “self supply” framework, are expected to see 700 MW of wind power in the Isthmus commissioned by December 2011, which is expected to rise to 2,000 MW in subsequent years.<sup>43</sup>

The World Bank has been a key player in the expansion of wind power in the region. The “Large Scale Renewable Energy Development Project”, which the World Bank implements for the Global Environment Facility (GEF), is providing technical assistance to the ministry of energy (SENER), the



Energy Regulatory Commission, the Ministry of Environment and Natural Resources (SEMARNAT) and CFE.<sup>44</sup> This includes assistance in planning and siting future wind farm developments in the Isthmus.

In 2006, a \$12.29 million loan investment in La Venta II wind project was approved by the World Bank's Prototype Carbon Fund, while in 2008 the Spanish Carbon Fund, also managed by the World Bank, agreed to buy the expected 1.8 million carbon credits that the project generates.<sup>45</sup> The GEF, for which the World Bank is the trustee, also agreed in 2006 to provide \$25 million in grant funding for La Venta III, the first wind farm in the region built and run by a private wind independent power producer (as opposed to the CFE, the state-electricity company).<sup>46</sup> It has also pledged to invest a further \$45 million, which includes a 0.015 USD/kW subsidy for electricity produced by the project.<sup>47</sup>

These projects have increasingly been challenged by the local population. On 6 March 2007, farmers protesting against the wind farm were disbanded by 300 police. The Front of the Peoples of the Isthmus in Defence of Land was formed in response. Under this name many movements (including the Assembly of the People of Oaxaca) united to oppose the wind parks, and have gone on to oppose other PPP megaprojects, which they regard as expropriation of communal and *ejidal* (communal) lands. Bettina Cruz Velazquez of the Frente explains:

“With the pretext of advancing renewable energy, big corporations are occupying our land with windmills. Agriculture, particularly corn plantations, is the essence of our region, and will be completely displaced by the wind farm projects”.<sup>48</sup>

The struggle continues with an activist assembly, an “encuentro,” held in Juchitán in June 2011 to discuss the next steps in opposing the wind park expansions.<sup>49</sup>

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## La Mata and La Ventosa Wind Park

The La Mata and La Ventosa wind park is the first to be supported by the CTF's private sector wind development project in Mexico, and has been operating since May 2010.<sup>50</sup> It is located on a 361 hectare site on the communal lands of the villages of La Mata and La Ventosa, after which it is named. The park is the third large scale private sector wind development in the Isthmus of Tehuantepec.<sup>51</sup> The other two, run by the Spanish based companies Iberdrola and Gamesa, are adjacent to the project's site.

The original project was conceived in the mid 1990s and foresaw a larger land area but was adjusted in response to the refusal of some Ejidatarios to allow use of their lands, and to reflect a revision involving large generators.<sup>52</sup> The project consists of 27 large wind turbines, each with a 2.5 MW capacity.<sup>53</sup> Each tower is 80m high, with an 89m rotor that rises to a maximum height of almost 125m.<sup>54</sup> These are arranged in two lines of generators, one of about 4.8 km including 20 generators (Ejido La Mata), the other of about 1.7 km with 7 generators (Ejido La Ventosa).<sup>55</sup> These have the capacity to produce 67.5 MW per year, which will provide power to Walmart's 348 stores, price clubs and restaurants in Mexico.<sup>56</sup> Walmart claims that this is equivalent to powering 160,000 homes. None of the electricity will supply home users, despite the fact that around 7 per cent of the population of Oaxaca lack electricity access.<sup>57</sup>

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## Finance

The La Mata and La Ventosa wind project is owned by Eléctrica del Valle de México (EVM), a special purpose limited liability company majority owned by EDF Energies Nouvelles, the renewable energy arm of Électricité de France (EDF).<sup>58</sup> This type of “nested” ownership structure is typical, with special purpose companies designed to isolate the parent company from financial risks.

There is a deeper reason for this structure in the case of La Mata and La Ventosa, however, relating to the use of the “self supply” framework (explained above) to circumvent the state utility’s monopoly on electricity supply. The CTF “Private Sector Wind Development” project is encouraging companies, in this case Walmart, to officially state that they have produced their own power. This is achieved by setting up a separate subsidiary company, in which the corporate consumer takes a nominal stake. In the case of La Mata and La Ventosa, Walmart owns a handful of shares in a company that is 99 per cent “indirectly owned” by EDF, which allows it to purchase power at discounted rate.<sup>59</sup>

The CTF now intends to replicate this model in the Isthmus. It will finance up to five projects that are similar to the Walmart EDF “self supply” arrangement, as well as conducting a “knowledge sharing” project that teaches other companies how to exploit the same loophole.<sup>60</sup>

The total cost of developing the project was initially estimated at approximately US \$198 million (MXN \$2.2 billion), according to World Bank and other multilateral development bank (MDB) documentation, although more recent figures submitted to Executive Board of the UN’s Clean Development Mechanism (see below) suggest an eventual cost of just under \$152 million.<sup>61</sup> The equity (shareholder investment) was provided by EDF. This was supplemented by loan financing from various multilateral development banks, including a \$15 million concessional loan from the CTF.

### *La Mata and La Ventosa Financing*

Lender	US\$ million
International Finance Corporation (IFC)	23.68
Inter-American Development Bank (IADB)	21.01
Clean Technology Fund (CTF)	15.00
Export-Import Bank	80.66
<b>Total loans</b>	<b>140.35</b>
Equity investment (est.)	11.49
<b>Project cost</b>	<b>151.84</b>

Sources: IFC, IADB<sup>62</sup>

The combined total of the MDB loans is over \$140 million, although the CDM documentation claims loans of \$109 million. Part of the discrepancy can be explained by the fact that the latter figure is likely to exclude the CTF loan, which is likely to have been offered at a low concessional interest rate.<sup>63</sup>

The main revenue stream from the project is the sale of an expected 290 GWh per year to four local subsidiaries of Walmart. A power purchase agreement was signed which fixes the price that Walmart pays for 15 years. This was set at the cost of power for commercial users in January 2008, adjusted according to interest rates but subject to a fixed discount of 8 per cent.<sup>64</sup> In other words, Walmart achieves a significant saving from the project.

### **Carbon credits**

A second revenue stream will come from the sale of carbon credits under the Clean Development Mechanism (CDM).<sup>65</sup> These credits were “forward sold” to EDF Trading, another subsidiary of the French energy company that ultimately owns the vast majority of the project, in July 2008.<sup>66</sup> Although no credits have yet been issued, this agreement means that EDF Trading promises to buy the 1,179,195 certified emissions reduction credits (CERs) that the project is expected to deliver during its first seven years of CDM registration, worth over \$12 million. If the project successfully applies for two crediting extensions, as anticipated in its budget, it would gain over \$40 million from the CDM.<sup>67</sup>

The CDM component of the project financing is clearly subject to what Stanford University academics Richard Morse and Gang He have dubbed the “offsetters’ paradox.”<sup>68</sup> This term typically refers to a situation where regulators have an incentive to reduce subsidies and adjust power prices to make a project appear financially nonviable without further support – a key condition allowing it to qualify for CDM credits. In the case of La Mata and La Ventosa, the manipulation is not conducted by a state adjustment of tariffs but by a form of “transfer pricing”; a pricing arrangement between subsidiaries of multinational companies that seeks to minimise taxes and maximise subsidies. This is possible because EDF controls the company operating the project, the company subcontracted for maintenance *and* the company buying the CDM credits.

The clearest indication of transfer pricing can be seen in the operation and maintenance costs of the project. The project assumes these will cost around \$900,000 per year for the first five years. Despite only being contracted for “support” services, EDF subsidiary enXco would be paid more than Clipper, the turbine company with primary responsibility for this service. This figure would rise to almost \$2 million per year when enXco takes over the full maintenance costs, over quadruple what Clipper charges for the same service.<sup>69</sup> This manipulation has worsened the projects’ assumed “internal rate of return”, making it seem nonviable without CDM credits.

The project has also misrepresented its economic viability by calculating its internal rate of return on the assumption that it is paying commercial loan rates, although the CTF loan was secured at concessional rates. In so doing, the company was able to present itself as taking a greater share of financial risk than is actually the case, and thereby argue that it should be eligible for CDM credits.

A further blatant clue to non-additionality was the fact that the project design document (the official paperwork for acceptance in the CDM) was only submitted in April 2010 when building work was already complete, and just a month before the project officially opened.<sup>70</sup> It was approved for funding by the CDM executive board in February 2011, and officially registered in June 2011.

The “non-additionality” of the project is a particularly stark instance of a problem that is a general CDM risk, namely, the volatility of offset credit prices mean that project developers tend to ensure a return on investment is guaranteed without relying on the CDM. A “good” CDM investment is, almost

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by definition, a non-additional one. It may be objected that this is not a particular issue, since it “at least” allows clean projects get developed. As we shall see, however, the social impacts of the La Mata and La Ventosa project mitigate against such a simple judgement.

The key to the environmental impact of non-additionality can be seen at the other end of the chain. If 1,179,195 certified emissions reductions credits (CERs) are generated by this project, that is 1,179,195 tonnes of emissions that EDF can continue to produce in the EU – displacing action to clean up the company’s emissions from its European operations.

## Planning and construction

The La Mata and La Ventosa wind park remained on the drawing board for a long time, with initial feasibility studies conducted in 1993.<sup>71</sup> The first agreements with the *ejidos* on which it would be built were only signed in April and June 2002.<sup>72</sup> In September that year, SIIF Energies (later renamed EDF EN) paid PricewaterhouseCoopers to investigate the possibility of applying for carbon credits for the project.<sup>73</sup> In June 2003 the project was granted an environmental permit by the ministry of environment and natural resources (SEMARNAT). This was amended in July 2008 to incorporate modifications in the project design.<sup>74</sup> The 15-year power purchase agreements with four Walmart subsidiaries were signed in 2006.<sup>75</sup>

The construction project began in February 2009 and was managed by enXco, a subsidiary of EDF.<sup>76</sup> The project documentation talks up the local employment opportunities, with 150 employees during the construction phase, and 10 employees for operation and maintenance purposes.<sup>77</sup> However, the local contracting only extended to the construction of civil works associated with the development of roads, electrical, and foundation work. The better paid skilled labour, including tower erection, placement of turbines and commissioning, was performed by US employees.<sup>78</sup>

The big winners in the construction phases were the international equipment suppliers. The 27 wind turbines were supplied by Clipper, a US based company that is publicly listed on the London Stock Exchange’s Alternative Investment Market.<sup>79</sup> The turbines, costing just short of \$97 million, were exported from the USA. In January 2009, the major engineering work was contracted to Siemens, the German owned infrastructure multinational, which was paid almost \$20 million.<sup>80</sup> The rest of the construction work was contracted to GES Scada, a Mexican firm, for almost \$9 million, with a further \$9.5 million paid to the state electricity utility CFE for grid connections.<sup>81</sup>

Clipper will be handling the operation and maintenance during the first 5 years.<sup>82</sup> A support contract was signed with enXco, an EDF subsidiary, for this same period to cover “peripheral systems.” After five years, enXco will operate and manage the entire facility.<sup>83</sup>

## Development impacts

The World Bank claims that the development impact of the project includes a monthly income source for landowners; new access roads and infrastructure; 150 local jobs for unskilled labour; and a boost to the local port of Salina Cruz (which was used for importing parts).

This list is a mix of the bizarre with the disingenuous.<sup>84</sup> The Salina Cruz port, for example, is already a major facility, which currently plays host to the second largest oil refinery in Mexico.<sup>85</sup>

The monthly income claim is more contentious, however. The project paid “an annual fixed compensation fee for the land permanently affected” by the construction process.<sup>86</sup> It is then reported that this will continue as a fixed fee to all Ejidatarios located in the “area of influence” (about 500m along the row of generators) which have a contract with EVM.<sup>87</sup> The company reports 57 such 30-year contracts with respect to both common use land and individual Ejidatarios lands.<sup>88</sup>

The previous experience with wind parks in the area is poor. For example, local activist Alejo Girón Carrasco, from the Grupo Solidario in La Venta, recalls that the first wind project saw the companies “telling lies, promising 300 to 500 pesos a day per hectare, but once the mills were up they paid only two pesos (20 cents) per day, and only on days when the windmills generate electricity.”<sup>89</sup>

Velazquez also recalls the experience of earlier projects, in which

“The TNCs [transnational corporations], colluding with the Mexican government, manipulated the poor, largely non-Spanish speaking indigenous people of my community into signing tenancy contracts that in practice meant giving up their lands for up to 30 years for a ridiculously low amount of money.”<sup>90</sup>

Land access is a particular point of contention, with the *ejidos* led to believe that they can continue to cultivate the land around the wind turbines, while the contracts restricting crop heights to 2 meters (corn and sorghum often exceed these heights).

These failures to specify the contractual terms indicate that the free, prior and informed consent of the people is lacking, according to Velazquez: “They say they’ve got so many contracts signed, but tell me if the people know what the contract says, tell me if the people understand the impact this will have on their life, not only on the land?”

This speaks to a broader problem when communal lands are enclosed with a few power brokers (“stakeholders”) and government agencies giving approval (often on the basis of alleged corrupt payments by the TNCs).<sup>91</sup> In the case of the early wind farm projects, even US AID acknowledges “locals alleging failure of the developer(s) to fulfil promises, pay fair royalty rates, and/or take sufficient care in the development process,” and that “instances of a few individuals making decisions for the majority, without sufficient consensus, have occurred.”<sup>92</sup>

In the case of La Mata and La Ventosa, there is no record of official consultation meetings taking place before the start of construction works, although a series of contract discussions with representatives of the La Mata and La Ventosa *ejidos* and other local landowners had taken place since 2002.

All three official “consultations” took place after construction work on the project had already begun. Two of the consultations were in April 2009, attended by 16 and 22 “stakeholders” respectively, while a third meeting was held on 7 January 2010, by which time the building work was largely completed. All three meetings took place in the context of the “Foro Ecológico de Juchitan” in Juchitan de Zaragoza, 16-20 Km from the project site.<sup>93</sup> An attendance list for the third of these meetings shows that there were 26 participants present, over half of whom were representatives of the company or government officials.<sup>94</sup>

The official reports of this meeting paint a rosy picture, documenting several suggestions that the project should be enlarged, and concluding that “All attendees agreed on the social benefits of the

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project and noted that the Eléctrica del Valle de Mexico project has the highest support by neighbours and “Ejidatarios” from all wind farms in the area.”<sup>95</sup> EDF claims that “This project is a great success thanks to the positive dialogue with La Mata and La Ventosa local communities.”<sup>96</sup>

The on the ground experience of such consultations has generally been poor, however. Teodocio Angel, a member of UCIZONI, an indigenous-rights organization in the Isthmus of Tehuantepec, recalls “consultations” on the Plan Puebla Panama in late 2003, which were similarly packed with officials, who asked leading questions about the project benefits, and took advantage of language differences to reinforce consent.<sup>97</sup>

As Bettina Cruz Velazquez explains:

“The companies come and they say, yes, we consulted the commission, we consulted a group of landowners, but that’s not a consultation. Consultation has its own mechanisms. It’s part of the UN declaration of indigenous rights. In article 169 of the International Labour Organisation Convention. It’s in our own Mexican constitutional legislation in article 2 and article 27 both state that you have to consult indigenous peoples when there’s a project that somebody wants to implement which will affect their way of life and their resources. Here there has not been any consultation.”

This lack of consultation reflects a broader disregard for concerns about the local impacts of the project. For example, the president of the Mexican Wind Energy Association has dismissed critics and protesters as being “based on ignorance, sensationalism and bad faith.”<sup>98</sup> Yet the concerns about the “development impacts” of the projects are real, and signal an alternative vision for the future of the region without records to megaprojects and export-led development. As Velazquez explains:

“We don’t think in the same way. The tradesman’s vision is buy, buy, buy, buy, buy but here we don’t buy everything. There are things that the farmers, the women and men have and can get from the land and live from. It’s another vision... they come along and say to us you have the wind here so you have the obligation to contribute to reducing climate change. We didn’t contribute to climate change. The corporates, they’re the ones who caused climate change... and now the same companies are the ones with the solutions in their hands. They have the solution in these farms, producing renewable energy. Really it’s paradoxical! ”

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## Conclusion

The IFC claims that the La Mata and La Ventosa wind park, and the larger Private Sector Wind Development project it forms part of, will stimulate cleaner energy development in Mexico. But investing in new capacity is not the same as making electricity cleaner if it does not significantly alter the energy mix. The evidence from Mexico suggests that increases in wind capacity will be outstripped by the expansion of fossil fuel power plants and hydroelectric dams in the coming decade. This growth in electricity generating capacity will allow the country to export more energy, and is intended to fuel the growth of a new *maquiladora* zone in Oaxaca, rather than addressing the energy access needs of the local population.

The La Mata and La Ventosa wind park offers cheaper electricity to Walmart, but does nothing to address energy poverty in Oaxaca. It was made possible by a loophole in Mexico's electricity "self supply" laws, which allows corporate energy users to gain discount rates for electricity if they take a nominal stake in the private company generating it. The CTF intends to fund other projects using the same techniques, although this is likely to worsen energy inequalities in the country.

The CTF also claims that it provided a \$15 million concessional loan to La Mata and La Ventosa to stimulate a wind project that would not otherwise have happened. This is clearly not the case, as shown by the fact that multilateral development bank loans were raised to account for over 90 per cent of the project costs.

This lack of "additionality" also means that the project should never have been approved as part of the CDM (although the same could be said for most projects within the CDM). CDM funding could raise \$12 million or more in project revenues, displacing and delaying action by EDF's European power plants to reduce their greenhouse gas emissions.

The World Bank hopes that the La Mata and La Ventosa project will encourage up to 2,000 MW of further private sector wind projects in the Isthmus of Tehuantepec, where the wind park is located.<sup>99</sup> However, there is growing local concern that these projects could lead to land grabbing, as well as supporting a development model that undermines local culture, indigenous rights and collective landholdings. The project consultations failed to take such objections seriously, treating local communities as providers of land rather than seeking genuine participation.<sup>100</sup>

The exclusion of communities from decision-making processes means that wind projects in the Isthmus appear as a threat to local peoples' livelihoods, rather than as an opportunity to widen energy access in a sustainable manner. These fears are grounded in a 20 year history of megaprojects planned for the region, which seek to promote export led development rather than assisting local people in protecting their culture and livelihoods. As Subcomandante Marcos put it on a visit to the Isthmus in 2009, paraphrasing Don Quixote; "This is not about windmills. It is about giants."

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## Recommendations

1. All climate finance for mitigation in developing countries should prioritise increases in energy access in any funding decisions.
2. Climate finance should not be used to fund or encourage private sector energy projects using Mexico's "self supply" framework, and should channel any funds directly to energy utilities rather than "special-purpose" limited liability companies. More generally, climate finance for mitigation should put the widening of energy access ahead of "full cost recovery" in its decision-making processes.
3. Climate finance should prioritise projects that would not otherwise be possible, with particular scrutiny paid to the volume of support from other MDBs, and awareness of the risks of "transfer pricing." This would require multilateral funds such as the CTF trust fund committee to have access to far higher standards of financial information than are currently available to them.

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4. Climate finance should explicitly exclude backing CDM-funded projects, rather than the CTF's objective of "developing knowledge and experience ... for accessing carbon credits", so as not to contribute to delays in emissions reductions in industrialised countries.<sup>101</sup>
5. Local consultations should take place before projects are approved for funding, and before construction work commences. These should prioritise the participation of local communities in planning and decision-making processes, so that projects clearly benefit the areas where they are located.
6. Lessons learned from the evident flaws in the CTF's approach should be incorporated into the design, development and operation of the new Green Climate Fund, agreed at the UN climate talks in Cancun in 2010. Once the Green Climate Fund is established, the CTF must not take any further contributions from donors and cease operation.
7. The UK government should give no further climate finance to the CTF, and seek alternative channels for mitigation finance until the Green Climate Fund is operational.

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## Endnotes

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- 1 Este País (2008) *El sector energético en México*. [http://www.estepais.com/inicio/historicos/205/18\\_indicadores\\_el%20sector%20energ.pdf](http://www.estepais.com/inicio/historicos/205/18_indicadores_el%20sector%20energ.pdf) p.104.
  - 2 EDF Energies Nouvelles (2010) *Eléctrica del Valle de Mexico*. <http://www.exim.gov/news/annualconf/2010/EDF%20Energies%20Nouvelles.pdf> p.12.
  - 3 International Finance Corporation (2009) *Clean Technology Fund Project Proposal for Mexico: Private Sector Wind Development (Current Information Document)*. [http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/Current\\_Information\\_Document\\_Mexico\\_Private\\_Sector\\_Wind.pdf](http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/Current_Information_Document_Mexico_Private_Sector_Wind.pdf) p.13.
  - 4 Transitional Committee (2011) *Workshop on the role of the Green Climate Fund in fostering transformational change, engaging civil society and leveraging the private sector*. Discussion note, 11 September, p.16.
  - 5 Wright, K. (2010). Interview with Bettina Cruz Velazquez, December.
  - 6 World Bank (2008) *The Clean Technology Fund*. World Bank Group. p.5.
  - 7 Weiss, M., and J. Logan (2008), *The World Bank's Clean Technology Fund (CTF)*, Congressional Research Service, <http://wikileaks.org/wiki/CRS-RS22989> p.2
  - 8 Climate Funds Update (2011) *Clean Technology Fund*, <http://www.climatefundsupdate.org/listing/clean-technology-fund> (accessed 8 October 2011). The other CIFs are the Strategic Climate Fund, Pilot Program on Climate Resilience, Forest Investment Program, and Scaling Up Renewable Energy Program.
  - 9 Climate Funds Update (2011). The UK is (alongside Germany) the third largest contributor after the USA and Japan. The UK's money is channelled through the International Climate Fund, a programme jointly managed by the Department of Energy and Climate Change (DECC), the Department for International Development (DfID) and the Treasury. see M. Andrews, T. Bryant, N. Carey and E. Lewis (2011) *Aid and the Environment*, London: National Audit Office, p.14
  - 10 World Bank (2011) *Semi-Annual Report on CTF Operations*. 8 June. <http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/CTF%204%20Semi-Annual%20Report%20on%20CTF%20Operations%20june2011%2068.pdf> pp.3-4.
  - 11 World Bank (2011) p.5.
  - 12 World Bank (2008) p.5.
  - 13 Redman, J. (2008) *Dirty is the New clean: A Critique of the World Bank's Strategic Framework for Development and Climate Change*. Institute of Policy Studies.
  - 14 Tan, C. (2008) *World Bank's Climate Funds Will Undermine Global Climate Action*. Third World Network. 10 April.
  - 15 The UK has designated £155 million of its £385 million CTF money as "fast start" financing. See Department for International Development (DfID) (2011) *Fast Start Finance: United Kingdom*. <http://www.faststartfinance.org/node/247> [accessed: 8 October 2011]
  - 16 House of Commons Environmental Audit Committee (2011) *The impact of UK overseas aid on environmental protection and climate change adaptation and mitigation*. Fifth Report of Session 2010–12. The Stationary Office <http://www.publications.parliament.uk/pa/cm201012/cmselect/cmenvaud/710/710.pdf> p.24.
  - 17 International Finance Corporation (2009) p.5.
  - 18 Inter-American Development Bank (2009) *Mexico. EDF La Ventosa / La Mata Wind Energy Project, Environmental and Social Management Report*. 4 December. p.5.
  - 19 Garcia, M. A. (1999) The Megaproject of the Isthmus of Tehuantepec: Globalization and Social and Environmental Deterioration. *WRM Bulletin* 23. <http://www.wrm.org.uy/countries/Mexico/isthmus.html>
  - 20 Zárate Toledo, M. A. (N.D.) *Las Propuestas Recientes para el Desarrollo del Istmo de Tehuantepec*. Centro de Investigaciones y Estudios Superiores en Antropología Social, Unidad Golfo, <http://www.ciesas-golfo.edu.mx/istmo/docs/propuestasrecientes/indice.htm> [accessed 9 October 2011]. The Plan Puebla Panama (PPP) included the entire Central American region, stretching from the Mexican city of Puebla through to Panama through to Panama. See V. McElhinny and S. Nickinson (2005) *Plan Puebla Panama: Recipe for Development or Disaster?* InterAction IDB Civil Society Initiative. <http://www.bicusa.org/proxy/Document.9840.aspx>
  - 21 Global Exchange (2004) *Plan Puebla Panama: Battle over the future of Mesoamerica*. 2<sup>nd</sup> edition. <http://www.datacenter.org/wp-content/uploads/PPPBOOK.pdf>
  - 22 Global Exchange (2004). The rebranding exercise involved a publicity freeze, with a new image drawn up by US advertising agency Fleishman-Hillard brought in.
  - 23 Colman, G. (2006) Teachers and APPO in Oaxaca and Mexico. *Znet*. 9 November. <http://www.zcommunications.org/teachers-and-appo-in-oaxaca-and-mexico-by-george-colman>; Esteva, G. (2007) The Asamblea Popular de los Pueblos de Oaxaca: a chronicle of radical democracy. *Latin American Perspectives*, vol. 34 no. 1 <http://lap.sagepub.com/content/34/1/129.short> pp.129-144.
- 

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- 
- 24 The First Regional Assembly of the People of the Isthmus took place in January 2007, see <http://elenemigocomun.net/2007/01/first-regional-assembly-isthmus/>
- 25 Oceransky, S. (2009) Wind Conflicts In The Isthmus Of Tehuantepec: The Role of Ownership and Decision-Making Models in Indigenous Resistance to Wind Projects in Southern Mexico. *The Commoner* 13 p.217.
- 26 Reyes, D. (2009) Winds of Resistance on the Isthmus of Tehuantepec. 28 January. <http://elenemigocomun.net/2009/01/winds-resistance-isthmus-tehuantepec/>
- 27 International Finance Corporation (2009) p.4.
- 28 Olivet, C. and M-L Malig (2009) Free Trade and Climate Change Resistance: Interview with Bettina Cruz Velásquez. <http://www.tni.org/interview/free-trade-and-climate-change-resistance-voices-south-3>
- 29 SENER (2008) *Prospectiva del sector eléctrico 2008-2017* Secretaría de Energía. [http://www.sener.gob.mx/webSener/res/PE\\_y\\_DT/pub/Prospectiva%20SE%202008-2017.pdf](http://www.sener.gob.mx/webSener/res/PE_y_DT/pub/Prospectiva%20SE%202008-2017.pdf) p. 145.
- 30 Eléctrica del Valle de México (2010) *Clean Development Mechanism Project Design Document: Eléctrica del Valle de México Wind Farm*. 29 April. <http://cdm.unfccc.int/UserManagement/FileStorage/4PHKWTX8LD9E3NZGB6S05U2Q1FM70C> p.10; SENER (2008) p.146
- 31 International Finance Corporation (2009) p.4, p.11.
- 32 Olivet, C. and M-L Malig (2009)
- 33 Banner, P. (2009) *Mexico Wind Farm Case Study*. US AID. [http://www.energytoolbox.org/gcre/wind\\_case\\_study.pdf](http://www.energytoolbox.org/gcre/wind_case_study.pdf) p.7; SENER (2008) p.106.
- 34 SENER (2008) p.98.
- 35 Banner, P. (2009) p.8.
- 36 Banner, P. (2009) p.7.
- 37 Branston, J.R. (2003) *Corporate Control and the Public Interest: Theory and Cases* PhD Thesis, University of Birmingham. p.104.
- 38 Branston (2003) p.107.
- 39 Assembly of the Peoples of the Isthmus in Defense of the Land and Territory (2011) "2nd Gathering of Our Voices of Struggle and Resistance in the Isthmus of Oaxaca", 17 July, <http://elenemigocomun.net/2011/07/our-voices-struggle-resistance/>
- 40 For a critique of the "full cost recovery" approach to service delivery, see MacDonald, D. and J. Pape (2003) *Cost Recovery and the Crisis of Service Delivery in South Africa*. Zed Books.
- 41 Hall, D. (2005) *Electricity privatisation and restructuring in Latin America and the impact on workers* PSIRU, University of Greenwich. [http://gala.gre.ac.uk/3634/1/PSIRU\\_9610\\_-\\_2005-09-E-emp-latam.pdf](http://gala.gre.ac.uk/3634/1/PSIRU_9610_-_2005-09-E-emp-latam.pdf) p.15.
- 42 International Finance Corporation (2009) p.5.
- 43 Transitional Committee (2011) p.16.
- 44 World Bank (2006) Project Appraisal Document: Large-scale renewable energy development project. [http://www.sener.gob.mx/res/PE\\_y\\_DT/pe/Mexico%20GEF%20LSRDP%20PAD%207%20June%2020061.pdf](http://www.sener.gob.mx/res/PE_y_DT/pe/Mexico%20GEF%20LSRDP%20PAD%207%20June%2020061.pdf)
- 45 World Bank (2006) Mexico - Wind Umbrella, <http://web.worldbank.org/external/projects/main?Projectid=P080104andtheSitePK=40941andpiPK=64290415andpagePK=64283627andmenuPK=64282134andType=Overview> ; World Bank (2009) *Carbon Finance for Sustainable Development 2008* [http://siteresources.worldbank.org/INTCARBONFINANCE/Resources/2008\\_Annual\\_Report\\_CF08\\_Final\\_printed\\_Low\\_Res\\_04-29-09.pdf](http://siteresources.worldbank.org/INTCARBONFINANCE/Resources/2008_Annual_Report_CF08_Final_printed_Low_Res_04-29-09.pdf) p.59.
- 46 International Finance Corporation (2009) p.7.
- 47 World Bank (2006) Large-scale Renewable Energy Development Project Mexico. 15 June. <http://web.worldbank.org/external/projects/main?pagePK=64283627andpiPK=73230andtheSitePK=40941andmenuPK=228424andProjectid=P077717> ; Borja, M. (2010) During 2009, 261 new wind turbines were commissioned in México. 26 September. [http://www.evwind.es/noticias.php?id\\_not=7533](http://www.evwind.es/noticias.php?id_not=7533)
- 48 Olivet, C. and M-L Malig (2009).
- 49 Asamblea de los pueblos del istmo en defensa de la tierras y el territorio (2011) Pronunciamiento del 2º Encuentro de nuestras voces de lucha y resistencia. 24 July. <http://tierrayterritorio.wordpress.com/>
- 50 Global Energy (2010) Inauguran Parque Eólico Oaxaca I Lamatalaventosa. 11 May. [http://www.globalenergy.com.mx/index.php?option=com\\_contentandview=articleandid=544:inauguran-parque-eolico-oaxaca-i-lamatalaventosaandcatid=50:solarandItemid=63](http://www.globalenergy.com.mx/index.php?option=com_contentandview=articleandid=544:inauguran-parque-eolico-oaxaca-i-lamatalaventosaandcatid=50:solarandItemid=63)
- 51 International Finance Corporation (2009) p.12; Eléctrica del Valle de México (2010) p.5.
- 52 Inter-American Development Bank (2009) La Mata and La Ventosa Wind Project: Environmental and Social Strategy. <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=2025671> p.1.
- 53 Eléctrica del Valle de México (2010).
- 54 Inter-American Development Bank (2009) p.1.
-

- 
- 55 Inter-American Development Bank (2009b) La Mata and La Ventosa Wind Project Abstract. Structured and corporate finance. 5 October. <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=2202496>
- 56 Global Energy (2010).
- 57 Este País (2008) p.104.
- 58 Inter-American Development Bank (2009c) MEXICO. EDF La Ventosa/La Mata Wind Energy Project (ME-L1076). Environmental and Social Management Report. 4 December. <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=35008152> p.4. EDF had a controlling 50 per cent stake in EDF EN at the time the project was developed. As of April 2011, the company became a wholly owned subsidiary of EDF. See M. Osbourne (2011) EDF to acquire EDF Energies Nouvelles, 8 April, [http://www.pv-tech.org/news/edf\\_to\\_acquire\\_edf\\_energies\\_nouvelles](http://www.pv-tech.org/news/edf_to_acquire_edf_energies_nouvelles)
- 59 EDF Energies Nouvelles (2010).
- 60 International Finance Corporation (2009), pp.10-11.
- 61 Eléctrica del Valle de México (2010).
- 62 Inter-American Development Bank (2009) ME-L1076 : EDF-La Ventosa Wind Project <http://www.iadb.org/en/projects/project,1303.html?id=ME-L1076> ; IFC (2010) IFC Helps Finance Mexican Wind-Power Project to Increase Renewable-Energy Sources. 14 December. <http://www.ifc.org/IFCExt/pressroom/IFCPressRoom.nsf/0/BA4A366AE5794447852577F9006467BC?OpenDocument>; IFC (2009) EDF LA Ventosa: Summary of Proposed Investment <http://www.ifc.org/ifcext/spiwebsite1.nsf/1ca07340e47a35cd85256efb00700cee/81ACEB3C99869A77852576BA000E32E3>. The IFC and IADB loans were originally denominated in Pesos.
- 63 CTF concessional loan rates can be between 2 and 10 per cent.
- 64 Det Norske Veritas (2009) *Validation Report , Eléctrica del Valle de México Wind Farm in Mexico*. Report no. 2009-1994 revision no. 03. <http://cdm.unfccc.int/UserManagement/FileStorage/BYD04P1NRL7E30TUJ9ZQCXSA28VHM6> p.19.
- 65 The CDM is a UN-administered scheme that allows industrialised countries and companies with greenhouse gas emissions reduction targets to invest in “emissions-saving projects” that supposedly compensate for their continued pollution. It has been beset with problems, however.
- 66 Det Norske Veritas (2009) p.15.
- 67 Eléctrica del Valle de México (2010b) Sensitivity analysis. <http://cdm.unfccc.int/UserManagement/FileStorage/BYD04P1NRL7E30TUJ9ZQCXSA28VHM6> These figures assume a price of \$12 per CER, which is the price quoted in the CDM project documentation uses.
- 68 He, G. and R. Morse (2010) *Making carbon offsets work in the developing world: lessons from the Chinese Wind Controversy*. Stanford University Program on Energy and Sustainable Development , working paper 90, [http://iis-db.stanford.edu/pubs/22867/WP\\_90\\_Morse\\_and\\_He\\_Making\\_Offsets\\_Work\\_Lessons\\_From\\_China\\_CDM\\_Wind.pdf](http://iis-db.stanford.edu/pubs/22867/WP_90_Morse_and_He_Making_Offsets_Work_Lessons_From_China_CDM_Wind.pdf)
- 69 Eléctrica del Valle de México (2010b)
- 70 EDF Energies Nouvelles (2010) p.19.
- 71 Inter-American Development Bank (2009c). pp. 13-14.
- 72 Inter-American Development Bank (2009c). pp. 13-14.
- 73 Det Norske Veritas (2009) p.14; Eléctrica del Valle de México (2010) p.11.
- 74 Inter-American Development Bank (2009b) p.2.
- 75 International Finance Corporation (2009) p.12.
- 76 Eléctrica del Valle de México (2010) p.2.
- 77 Eléctrica del Valle de México (2010) p.3.
- 78 Banner, P. (2009) p.6.
- 79 Eléctrica del Valle de México (2010) p.6.
- 80 Eléctrica del Valle de México (2010) p.31.
- 81 Eléctrica del Valle de México (2010b)
- 82 Det Norske Veritas (2009) p.11.
- 83 Det Norske Veritas (2009) p.20.
- 84 International Finance Corporation (2009) p.16.
- 85 See <http://www.ref.pemex.com/index.cfm?action=contentandsectionid=16>
- 86 Inter-American Development Bank (2009c) p.12.
- 87 Inter-American Development Bank (2009c) p.12.
- 88 Inter-American Development Bank (2009c) p.10.
- 89 A. Giordano (2006) Don Marcos of La Selva vs. the Mega-Windmill of Capitalism. NarcoNews. 9 February. <http://www.narconews.com/Issue40/article1607.html>
- 90 Olivet, C. and M-L Malig (2009).
- 91 Oceransky, S.
- 92 Banner, P. (2009) p.3.
- 

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- 93 Inter-American Development Bank (2009c) p.4.  
94 Inter-American Development Bank (2009c) p.4.  
95 Eléctrica del Valle de México (2010) p.38.  
96 EDF (2010) EDF Energies Nouvelles commissions its first wind farm in Mexico. 24 March.  
[http://www.ewind.es/noticias.php?id\\_not=4853](http://www.ewind.es/noticias.php?id_not=4853)  
97 Global Exchange (2002) The Plan Puebla-Panama Revived: Looking Back To See What's Ahead,  
<http://www.globalexchange.org/countries/americas/mexico/2090.html>  
98 Oceransky (2009) p.213.  
99 Transitional Committee (2011) p.16.  
100 Oceransky (2009), p.209.  
101 International Finance Corporation (2009) pp.11-12.