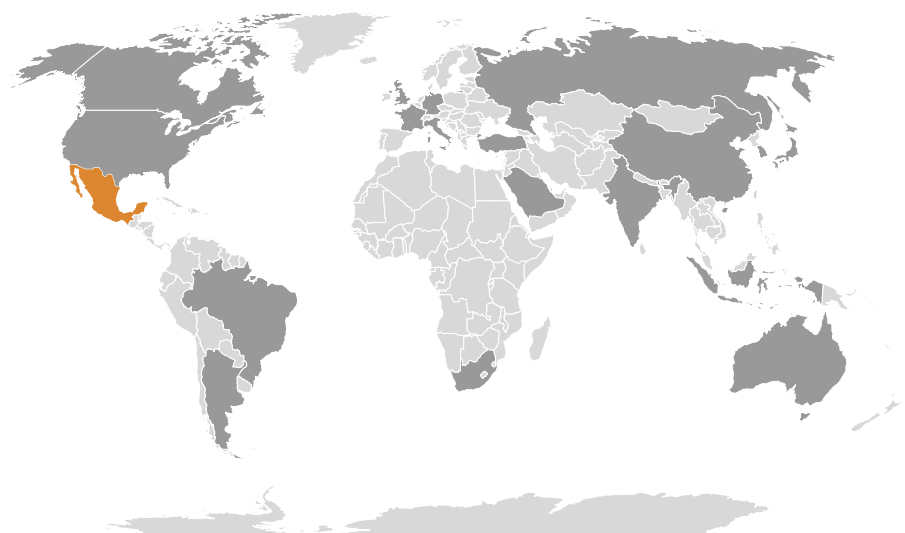




G20 subsidies to oil, gas and coal production: Mexico

Carlos Dominguez Ordonez



Argentina
Australia
Brazil
Canada
China
France
Germany
India
Indonesia
Italy
Japan
Korea (Republic of)
► **Mexico**
Russia
Saudi Arabia
South Africa
Turkey
United Kingdom
United States

This country study is a background paper for the report **Empty promises: G20 subsidies to oil, gas and coal production** by Oil Change International (OCI) and the Overseas Development Institute (ODI). It builds on research completed for an earlier report **The fossil fuel bailout: G20 subsidies to oil, gas and coal exploration**, published in 2014.

For the purposes of this country study, production subsidies for fossil fuels include: national subsidies, investment by state-owned enterprises, and public finance. **A brief outline of the methodology can be found in this country summary.** The full report provides a more detailed discussion of the methodology used for the country studies and sets out the technical and transparency issues linked to the identification of G20 subsidies to oil, gas and coal production.

The authors welcome feedback on both this country study and the full report to improve the accuracy and transparency of information on G20 government support to fossil fuel production.

A Data Sheet with data sources and further information for Mexico's production subsidies is available at:
<http://www.odi.org/publications/10077-g20-subsidies-oil-gas-coal-production-mexico>

priceofoil.org
odi.org

Country Study
November 2015

Background

Although oil and gas production levels have decreased since 2005, Mexico remains one of the largest oil and gas producers in the world. The decrease in production has resulted from productivity decreases in the ageing oil fields Cantarell and Ku-Malob-Zaap, the biggest oil sources in the country. State-owned Petroleos Mexicanos (Pemex), the sole oil and gas producer in the country, has also suffered from poor management strategies, heavy debt burdens and outdated technologies, limiting the company's ability to extract oil from deep-water oil fields.

Oil and gas reserves registered a 3.1% decline for 2014, falling from 13,520 billion barrels of oil equivalent (boe) to 13,071 billion boe. Conversely, oil and gas exploration expenditures increased from \$108 million in 2013 to \$115 million in 2014. These numbers reflect the difficulties that Pemex has had in making new discoveries and reaching sustainable replacement levels (Reuters, 2015).

Oil production decreased from 2.9 million barrels per day in 2013 to 2.8 million in 2014, a 3.5% decrease and the tenth consecutive annual decline (EIA, 2015). On the other hand, gas production registered a slight increase and stood at 6,517 daily million cubic feet for 2014, a 2.3% increase on the 6,367 daily million cubic feet for 2013 (Economista, 2015).

Finally, coal output for 2014 was 6.9 million tonnes of oil equivalent (mtoe). This was 8.9% lower than the previous year when the production reached 7.6 mtoe.

In December 2013, the Mexican government enacted energy reform designed to loosen restrictions on the oil industry. Mexico is looking to this reform to reinvigorate the oil and gas industry and bolster future oil production by attracting international private industry players.

National subsidies

Government involvement in the energy sector has prioritised consumption subsidies to oil products, like petrol, diesel and natural gas, over subsidies for production. However, there are some production subsidies designed to support the industry. These subsidies are discussed below.

The federal government recently implemented a new fiscal regime for oil and gas companies that is expected to reduce fiscal expenses for Pemex and guide tax payments from new private players entering the oil market (see Box 1). The sale of crude oil has traditionally been the biggest source of income for the national fiscal accounts (Digital Post, 2014). The fiscal regime varies significantly among Pemex subsidiaries. For example, exploration and production fees and rights under the previous regime comprised 11 items ranging from fees aimed at increasing scientific research in the energy field to exclusivity rights

in the extraction, production and export of oil (Recauda, 2014). The fiscal tax on oil income is paid by all Pemex subsidiaries, except Pemex Exploración y Producción (Pemex Exploration and Production). This tax rate is 30% of the total income published by the subsidiary after deducting a number of authorised items.

The federal government announced a relief programme in 2007 in order to help Pemex and CFE reduce their pension debt backlog. Although the programme was not labelled a subsidy per se, it has enabled these companies to reduce their labour and pension liabilities by more than \$2.2 billion per year. A particular amendment in August 2014 to energy reform stated that the federal government had committed to liquidate all the remaining pension debts within one year (totaling roughly \$3.3 billion), contingent on these companies satisfying specific criteria to become State Productive Enterprises (SPEs) (Horizonte, 2014). Half of the total amount¹ (\$1.3 billion average over 2013 and 2014) is included in the table of national subsidies to account for the portion of the subsidy going to Pemex, since the amount of the CFE pension liability going towards fossil fuels could not be determined.

Other support mechanisms have been implemented in recent years to help private sector suppliers of Pemex. For instance, at a state level, the programme Accintec Petrolero was implemented in 2013 to help nearly 1,200 companies with direct commercial links to the oil industry in the state of Tabasco (Tabasco Hoy, 2013). Under the last energy reform, the Ministry of Economy was made responsible for creating a public fund totalling \$36 million to promote the development of Pemex private suppliers and contractors (CNN Expansion, 2014a).

To spur the establishment of a more competitive market, the federal government is helping to reduce operating costs for new companies entering the oil and gas sector by allowing them to deduct 100% of exploration expenditures from their tax bills. In addition, 25% of original investments in the exploration and development of oil and gas deposits is also deductible; as is 10% of the amount invested in infrastructure for storage and transport of oil and gas (Ernst and Young, 2015).

There are also significant national subsidies to the consumption of fossil fuels. Comisión Federal de Electricidad (CFE), the main generator and provider of electricity in Mexico, is the company in charge of final distribution and billing, and claims a substantial subsidy from the federal government with the goal of reducing energy bills to final end customers – households, industries and the agricultural sector. This is usually through tax remissions and other indirect monetary transfers. These subsidies represented \$6.2 billion in 2014, which is 3.5% lower than 2013 levels (of \$6.5 billion).

1 A conservative estimate of 50% has been included in national subsidies to fossil fuel production, as Pemex's liabilities are estimated to be three times those of CFE (Webber, 2014).

Mexico has historically allocated significant subsidies to gasoline and diesel consumption. After several years of large budgetary allocations, the federal government decided in 2008 to reduce public support for gasoline and diesel consumption by closing the gap between national and international prices. This was done through the implementation of a monthly price slide programme that would eventually bring up national prices to international benchmarks and let these move according to a free market scheme by 2018. For Mexico, the closest international price benchmarks are the gasoline and diesel prices in the United States Gulf Coast.

As such, subsidies for gasoline and diesel consumption decreased markedly between 2013 and 2014, from \$7.9 billion to \$2.4 billion. However, it is worth noting that there is no clear explanation as to why the price scheme resulted in a monetary outflow from the government budget in 2014, given that throughout that year national prices were higher than international prices.

Public support has also gone to oil and gas distribution companies, which are allowed to be private operators according to national regulations. Subsidies linked to the sales of LPG, calculated as the difference between the sale prices that Pemex charges gas distributors and the international reference prices for LPG in MontBelvieu (Texas), reached \$345 million for 2014, roughly 4.1% less than the previous year when this subsidy totaled \$359 million. The federal government ensures the subsidy

is passed from distributors to gas consumers (industrial companies and households through direct public transfers to CFE) by establishing ceiling prices in the gas market.

State-owned enterprise investment

State-owned Pemex has so far been the only investor in the upstream and downstream oil and gas sector in Mexico. The company owns drills, sea platforms, oil storage tanks, refineries, pipelines and other types of infrastructure related to these activities. Annual investment budgets are dependent on the company's profitability and the government's budget, which have both been affected by current oil prices. Thus, capex for oil and gas activities may decrease significantly in the upcoming years depending on oil price trends.

Capex increased from \$26.1 billion (MXP 346.5 billion) in 2013 to \$27.7 billion (MXP 383.4 billion) in 2014. The company also established four main areas where 22 projects will receive investment efforts to increase future production levels (CNN Expansion, 2014b). These are:

- **Mature oil fields.** Private companies expert in oil extraction from ageing fields are required for onshore and offshore areas. Among these, the oil field Ogarrio-Rodador, located in the states of Veracruz and Tabasco, is deemed to have light hydrocarbons. Pemex assigned \$414.7 million for this project in 2014. The oil fields

Table 1: Mexico's national subsidies to fossil fuel production, 2013–2014 (\$ million except where stated otherwise)

Subsidy	Subsidy type	Targeted energy source	Stage	2013 estimate	2014 estimate	Estimated annual amount
Labor and pension debt subsidy	Tax expenditure	Oil and electricity	Production	1,076	1,626	1,351
100% deduction of exploration expenditure on income tax payments	Tax deduction	Oil and gas	Exploration	N/A	N/A	N/A
25% of original investments in the exploration and development of oil and gas deposits is deductible from income tax payments	Tax deduction	Oil and gas	Exploration and production	N/A	N/A	N/A
10% of amount invested in infrastructure for storage and transport of oil and gas is deductible from income tax payments	Tax deduction	Oil and gas	Storage and transport	N/A	N/A	N/A
Totals						
Total national subsidies (\$ m)						1,351
Total national subsidies (MXP m)						18,390

Sources and additional data are available in the Data Sheets that accompany each Country Study.

Note: N/A indicates data was not publicly available at the time of publication.

Box 1: A new fiscal regime for the oil and gas industry in Mexico (from 2015)

Although outside of the timeframe for this report (which is 2013 and 2014), Mexico has implemented a new fiscal regime as of January 2015, intended to create level conditions between Pemex and all private players entering the oil and gas industry. There have been doubts about whether the new system will guarantee fairness, given that private and public companies are subject to different fiscal structures, with assignment agreements for public companies and contractual agreements for private operators.

For the public sector, the new fiscal regime looks to reduce Pemex tax and royalties payments by about 36% or \$6.5 billion. For all companies, taxes and royalties would follow a dual structure, with a 30% corporate income tax plus a number of taxes and royalties depending on the exploration and production contract.

Assignments

Three federal fees are applicable for state-owned enterprises:

- Shared-profit fee: computed on the basis of the value of extracted resources in the fiscal year (70% for 2015 and 65% from 2019 onwards).
- Hydrocarbons-extraction fee: depending on the type of oil extracted and international price.
- Hydrocarbons-exploration fee: charged on a monthly basis and based on the extent of the area explored.

Contracts

Private companies will be allowed to participate in four types of contracts:

- Licence: Contract-signing bonus, royalties, exploration phase tax and value compensation of hydrocarbons.
- Production-sharing: royalties, exploration phase tax and compensation on net operating profit.
- Profit-sharing: as production-sharing contracts.
- Service contracts: companies under this type of contract receive no profits from exploration and production activities; therefore, royalties and taxes do not apply.

The value paid for royalties is dependent upon the field type (shale, deep, etc.), production levels and international prices. The exploration tax will be similar to that prevailing in assignment agreements. The extraction compensation will depend on the value of the extracted or produced hydrocarbons. Finally, in order to spur oil production, the Mexican government will provide a discount on royalties for onshore, shallow water and deep-water production and extraction activities.

Source: OECD.stat, 2015

Table 2: Mexico's state-owned enterprise (SOE) investment, 2013–2014 (\$ million except where stated otherwise)

SOE	Project / investment	Description	Fossil fuel sector	Value 2013	Value 2014	Average annual value
Pemex	Capital expenditure	Capital expenditure	Upstream oil and gas	26,000	27,700	26,850
Comisión Federal de Electricidad (CFE)	Capital expenditure	Capital expenditure	Electricity (avg. 72% FF generation in 2013/14)	N/A	N/A	N/A
Totals						
Total (\$ m)						26,850
Total (MXP m)						365,486

Sources and additional data are available in the Data Sheets that accompany each Country Study.

Note: N/A indicates data was not publicly available at the time of publication.

Bolontoku-Sinán and Ek were the biggest offshore waters projects in need of private intervention. The former was assigned an investment of \$1.2 billion and the latter was thought to require \$1.7 billion in investments over the next five years.

- Fields of marine extra-heavy oil. In order to be economically viable, extra-heavy oil, given its viscosity, needs to be extracted by specialised companies. Fields like Ayatsil-Tekel, located in the Bay of Campeche, will require near-term investments, although Pemex did

not report how much was needed. Oil fields like Utsil, located nearby, are expected to receive \$6.8 billion in investment during the next 10 years.

- **Giant oil fields in deep waters.** The Lakach project, located in the state of Veracruz, is an ocean area with deep waters and large natural gas reserves. Projects such as Kunah and Piklis are expected to require investment worth \$6.8 billion in the upcoming years.
- **The Perdido area.** This area may hold some of the largest potential reserves in Mexico, estimated to be on the order of 52 billion barrels. Within this area, the Trion project is expected to need \$8.1 billion in investment over the next eight years. The heavy oil Exploratus project would also require \$3.2 billion over the next few years.

The coal sector in Mexico is concentrated in a few privately-owned companies acting as the main players, and several other (mainly family-owned and artisanal) companies with marginal output. The government does not have any publicly-owned companies specialised in coal extraction.

The 100% state-owned company CFE is the main generator and provider of electricity in Mexico and is responsible for electricity production, transmission, distribution and commercialisation activities. CFE is mandated to bring electricity to urban households, industries and rural areas. According to government data, in 2014 CFE generated nearly 67% of all the national electricity output.

Within the electricity supply mix, the percentage of electricity produced from fossil fuels (oil, coal and gas) amounted to 69% for 2014, roughly 5% less than 2013 when fossil fuel-sourced electricity was 74% of total production (Secretaría de Energía, 2015). In 2014, CFE tendered and invested \$5 billion to develop 16 capital-intensive projects. These included, among others, two natural gas pipelines and three combined cycle natural gas-fired power plants (Diario Excelsior, 2014). Investments by CFE are not included in our estimates of SOE investment in fossil fuel production as it is not possible to isolate the proportion of investment specifically directed toward fossil fuel generation.

Public finance

Domestic

Three public finance institutions were identified as providing domestic public finance for oil and gas projects in 2013 and 2014: Banco Nacional de Obras y Servicios Públicos (Banobras), Nacional Financiera (Nafinsa) and Banco Nacional de Comercio Exterior (Bancomext).

Together the transactions identified totalled \$841 million (MXP 11.4 billion) in 2013 and 2014, or an annual average of \$421 million (MXP 5.7 billion).

In its annual report, Banobras identified two additional pipelines that it supported in 2013 and 2014: Gasoducto de Chihuahua and Gasoducto Morelos, as well as oil platforms in Campeche in 2013, but no project-level financing amounts were provided.

Nafinsa also has ongoing programmes in support of Pemex, including a cooperative agreement, a programme for financing Pemex's national suppliers and contractors, and a loan to Pemex Exploración y Producción (PEP).² However, since Pemex is included under state-owned enterprises, it is not reflected in the public finance totals.

International

No international public finance from Mexican public finance institutions was identified for 2013 and 2014. Mexico did contribute an annual average of \$28 million to fossil fuel production in 2013 and 2014 through its shares in the European Bank for Reconstruction and Development, the Inter-American Development Bank and the World Bank Group, which range from 0.1% to 7% depending on the institution.

Private companies

Historically, the energy sector in Mexico has been structured such that private players have only been allowed into the electricity and coal segments. The country is undergoing profound changes, especially in the oil and gas industries, and new private players are soon expected to begin operating in Mexico.

Private sector participation in electricity production was allowed in 1992 (Rodríguez, 2010). Latest data from the Mexican Energy Office (Secretaría de Energía) shows that thermal power plants, including natural gas-fired power plants, are the main electricity-producing technologies.

Coal production, on the other hand, previously had international participants, but today three companies headquartered in Mexico produce the vast majority of national coal output. Several other informal producers are also active, but it is difficult to quantify their production as they rarely follow regulations. The next subsections will briefly describe these.

Private upstream oil and gas companies

Mexico had no private upstream oil and gas companies in 2013 and 2014.

2 For more information, please see Nafinsa annual report on: www.nafin.com/portalfn/get?file=/pdf/2014/2014%20informe%20ingles%20NF%20V05.pdf

Table 3: Mexico's public finance for fossil fuel production, 2013–2014 (\$ million except where stated otherwise)

Institution name	Coal mining	Coal fired power	Upstream oil and gas	Oil and gas pipelines, power plants and refineries	Total fossil fuel finance 2013 & 2014	Annual avg. fossil fuel finance
Domestic						
Banco Nacional de Obras y Servicios Públicos - Banobras	-	-	-	560.5	560.5	280.3
Nacional Financiera – Nafinsa	-	-	-	198	198	99
Banco Nacional de Comercio Exterior – Bancomext	-	-	33	50	83	41.5
Subtotal domestic	-	-	33	808	841	421
International						
Multilateral development banks	0	6	17	34	56	28
Subtotal international	0	6	17	34	56	28
Totals						
Total public finance (\$ m)						449
Total public finance (MXP m)						6,083

Sources and additional data are available in the Data Sheets that accompany each Country Study.

Private midstream/downstream oil and gas companies

Mexico had no private midstream or downstream oil and gas companies in 2013 and 2014.

Private coal companies

The coal market currently follows oligopolistic patterns, with three companies acting as market-makers (see Table 4). Mines and coal resources belong to the Mexican people, but the government privatised the sector by offering licenses to private companies. In Mexico, the biggest coal mines are located in the state of Coahuila.

The biggest coal producers are Minera Carbonifera Rio Escondido (MICARE) and Minera Monclova (MIMOSA), both subsidiaries of the Group Altos Hornos de Mexico, one of the biggest steel producers in Mexico. The coal produced is usually used in the steel production process; a big portion of the total output is also sold to CFE for fuelling its coal-fired power plants (Altos Hornos de Mexico, 2014). Carbonifera de San Patricio is also deemed to be a big coal producer; unfortunately, no information regarding its market position was available.

No information on subsidies or any other type of support was found for coal extraction.

Table 4: Top private coal producers by production and profit in Mexico, 2013–2014

Company	Headquarter country	Coal production (in tonnes for 2014)	Profit	Countries in which the company operates (if global profit)
Minera Carbonifera Rio Escondido (MICARE)	Mexico	6,940,014	N/A	Mexico
Minera Monclova (MIMOSA)	Mexico	5,217,525	N/A	Mexico
Carbonifera de San Patricio	Mexico	N/A	N/A	Mexico

Source: Altos Hornos de Mexico, 2014.

Table 5: Top private companies in Mexico's electricity sector, 2013–2014

Company	Headquarter country	Installed capacity (in country) (in MW for 2014)	Profit (from country operations) (\$ million)	Countries in which the company operates (if global profit)
Iberdrola	Spain	5,294	465.5	Mexico
Alstom	France	10,500	N/A	Mexico
Mitsui	Japan	2,758	N/A	Mexico
AES	United States	1,055	N/A	Mexico
Intergen	United States	2,223	N/A	Mexico
EDF International	France	231	N/A	Mexico
Mitsubishi Heavy Industries	Japan	2,030	N/A	Mexico
Gas Natural Fenosa	Spain	2,000	N/A	Mexico

Sources: Iberdrola (2015a), Iberdrola (2015b), Alstom (2015), Garcia (2015), EDF (2013), Gas Natural Fenosa (2015).

Private electricity companies (fossil fuel-based)

In the national electricity supply, privately produced electricity accounts for nearly 33% of total electricity generated. These private players include companies from Spain, the United States, Japan, Canada and France. Among these, Spain's Union Fenosa and Iberdrola are some of the biggest; the Japanese Mitsubishi, the French Alstom and EDF International, and the US Intergen also own substantial generating capacity (see Table 5). Electricity production technologies include hydroelectric, geothermal and coal- and natural gas-fired power plants.

Before the 2014 National Energy Reform was implemented, private generators were required to sell their electricity output to CFE. However, from 2015, companies can participate in other activities in the electricity value chain, such as distribution and marketing. Producers such as Korea Electric Power Corporation (KEPCO), Enel, Vestas and Grupo Mexico have already showed willingness to begin production and commercial activities in Mexico (CNN Expansion, 2014c).

Methodology

(for detailed methodology see Chapter 3 of main report)

This report compiles publicly available information on G20 subsidies to oil, gas and coal production across G20 countries in 2013 and 2014. It provides a baseline to track progress on the phase-out of such subsidies as part of a wider global energy transition. It uses the following terms and their definitions.

Production subsidies

Government support for fossil fuel production. For the purpose of this country study, production subsidies include national subsidies, investment by state-owned enterprises (SOEs) (domestic and international) and public finance (domestic and international) specifically for fossil fuel production.

Fossil fuel production

Production in the oil, gas and coal sectors. This includes access, exploration and appraisal, development, extraction, preparation, transport, plant construction and operation, distribution and decommissioning. Although subsidies for the consumption of fossil fuels can support their production, this report excludes such subsidies as well as subsidies for the consumption of fossil fuel-based electricity.

National subsidies

Direct spending, tax and duty exemptions and other mechanisms (such as forms of capacity markets) provided by national and sub-national governments to support fossil fuel production. Normally, the value assigned for a national subsidy is the number provided by the government's own sources, by the OECD, or by an independent research institution.

State-owned enterprise (SOE) investment

A SOE is a legal entity created by a government to undertake commercial activities on its behalf. SOEs can be wholly or partially owned by governments.

It is difficult to identify the specific component of SOE investment that constitutes a subsidy, given the limited publicly available information on government transfers to SOEs (and vice-versa), and on the distribution of investment within their vertically integrated structures. Therefore, this report provides data on total investment by SOEs in fossil fuel production (where this information is available from the company), which are presented separately from national subsidies.

For the purpose of this report, 100% of the support provided to fossil fuel production through domestic and international investment by an SOE is considered when a government holds >50% of the shares.

Public finance

Public finance includes the provision of grants, equity, loans, guarantees and insurance by majority government-owned financial institutions for domestic and international fossil fuel production. Public finance is provided through institutions such as national and multilateral development banks, export credit agencies and domestic banks that are majority state-owned.

The transparency of investment data for public finance institutions varies. Assessing the portion of total financing that constitutes a subsidy requires detailed information on the financing terms, the portion of finance that is based directly on public resources (rather than raised on capital markets) or that depends on the institutions' government-linked credit rating. Few of the institutions assessed allow public access to this information. Therefore, we report the total value of public finance from majority government-owned financial institutions for fossil fuel production separately from 'national subsidy' estimates.

For the purpose of this report, 100% of the support provided to fossil fuel production through domestic and international financing is considered when a government holds >50% of the shares in the bank or financial institution.

References

- Agencia Efe (2015) 'Mexico ve impulso a reforma energetica tras "exitoso" concurso petrolero'. 30 September. Agencia Efe.
- Alstom (2015) 'Alstom in Mexico'. Mexico City : Alstom.
- Altos Hornos de Mexico (2014) *Informe Anual 2014*. Monclova: Altos Hornos de Mexico.
- Bast, E., Makhijani, S., Pickard, S. and Whitley, S. (2014) 'The Fossil Fuel Bailout: G20 Subsidies for Oil, Gas, and Coal Exploration'. London: Overseas Development Institute (CNN Expansion (2014a) 'Como convertirte en un proveedor de Pemex'. *CNN Expansion*. 27 August.
- CNN Expansion (2014b) 'Las 34 'perlas' para asociarse con Pemex'. *CNN Expansion*. 14 August. CNN Expansion (2014c) 'Las empresas que electrocutarán a la CFE'. *CNN Expansion*. 25 June.
- Diario Excelsior (2014) 'CFE licitará 16 proyectos con inversiones por 4 mil 900 mdd'. *Diario Excelsior*, 18 August.
- Digital Post (2014) 'Las Finanzas Federales Continuan Petrolizadas y el Aporte Fiscal de Pemex'. *Digital Post*. 30 December.
- Economista (2015) 'Cierra el peor año petrolero del país en un lustro'. *El economista*. 7 January.
- EDF (2013) 'EDF EN Mexico Commissions 164 Megawatt Wind Project in Oaxaca'. Paris: Électricité de France.
- Energy Information Administration (EIA) (2015) *International Energy Statistics*, U.S. Energy Information Administration.
- Ernst and Young (2015) *Global oil and gas tax guide*. Ernst & Young. Forbes (2015) *Corrupcion 'Sangra' a Pemex con 11,900 mdd*. 23 January.
- Garcia, D.A. (2015) 'AES, Grupo Bal to invest up to \$2.5 bln in Mexico energy sector'. *Reuters*, 10 August.
- Gas Natural Fenosa (2015) 'Generación eléctrica'. Barcelona: Gas Natural Fenosa.
- Horizonte (2014) 'Se "adelantan" subsidios a Pemex y CFE'. *El Horizonte*. 6 August.
- Iberdrola (2015a) 'IBERDROLA pone a tu alcance toda su capacidad instalada.' Bilbao: Iberdrola.
- Iberdrola (2015b) 'Iberdrola obtiene un beneficio neto de 2.327 millones € en 2014, impulsado por el negocio internacional'. 18 February. Bilbao: Iberdrola
- OECD.stat (2015) 'Fossil Fuel Support – MEX.' Paris: Organisation for Economic Co-operation and Development (OECD)
- Recauda, S. (2014) *Industrias Extractivas Regimen Fiscal Caso de Mexico*. International Monetary Fund.
- Reuters (2015) 'Mexico's proven and probable oil reserves dip 7 pct in 2014'. 30 June.
- Rodriguez, J.D. (2010) *Sector privado y generacion de energia electrica*. Mexico: Centro de estudios sociales y de opinion publica.
- Secretaría de Energía (2015) *Estadísticas del sector electrico nacional*. Subsecretaria de electricidad.
- Tabasco Hoy (2013) 'Abren subsidios para mil 200 proveedoras de pemex'. *Tabasco Hoy*. 4 December.
- Webber, J. (2014) 'Mexico weighs taking on Pemex pension liabilities'. *Financial Times*, 30 July.



Overseas Development Institute
203 Blackfriars Road
London SE1 8NJ
Tel +44 (0)20 7922 0300
Fax +44 (0)20 7922 0399
www.odi.org
info@odi.org



Oil Change International
714 G Street SE Suite 202
Washington, DC 20003 USA
Tel: +1 202 518 9029
Fax: +1 202 330 5952
www.priceofoil.org
info@priceofoil.org



International Institute for Sustainable Development
111 Lombard Avenue, Suite 325
Winnipeg, Manitoba, Canada R3B 0T4
Tel: +1 (204) 958-7700
Fax: +1 (204) 958-7710
www.iisd.org
info@iisd.org

Readers are encouraged to reproduce material for their own publications, as long as they are not being sold commercially. As copyright holders, ODI, OCI and IISD request due acknowledgement and a copy of the publication. For online use, we ask readers to link to the original resource on the ODI website. The views presented in this paper are those of the author(s) and do not necessarily represent the views of ODI, OCI or IISD. © Overseas Development Institute, Oil Change International and International Institute for Sustainable Development 2015. This work is licensed under a Creative Commons Attribution-NonCommercial Licence (CC BY-NC 4.0).

ODI is the UK's leading independent think tank on international development and humanitarian issues. Oil Change International is a research, communications, and advocacy organization focused on exposing the true costs of fossil fuels and facilitating the coming transition towards clean energy. IISD's mission is to promote human development and environmental sustainability through innovative research, communication and partnerships.