COMISIÓN FEDERAL DE ELECTRICIDAD,
Productive State Enterprise and Subsidiaries

Consolidated financial statements

December 31, 2019, 2018 and 2017

(With Independent Auditors' Report Thereon)

(Translation from Spanish Original Language)

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Independent Auditors´ Report

To the Board of Directors of

Comision Federal de Electricidad, Productive State Enterprise**:**

(Thousands of pesos)

Opinion

We have audited the consolidated financial statements of Comisión Federal de Electricidad, Productive State Enterprise and subsidiaries ("the Group"), which comprise the consolidated statement of financial position as at December 31, 2019, 2018 and 2017, the consolidated statements of comprehensive income, changes in equity and cash flows for the years then ended, and notes, comprising significant accounting policies and other explanatory information.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of Comision Federal de Electricidad, Productive State Enterprise and subsidiaries as at December 31, 2019, 2018 and 2017, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards (IFRS).

Basis por opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Mexico, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

KPMG

Determination and recognition of rights of use assets and lease liabilities

See note 4 to the consolidated financial statements

Key audit matter	How the key matter was addressed in our audit
As of December 31, 2019, the Group has recognized rights-of-use assets of $474,376,421 and lease liabilities of $567,913,231, derived from leases of real estate and gas pipelines under the figure of lessee. The adoption method used by the Group was the full retrospective, which involved reformulating the financial information for the years 2018 and 2017, considering as the date of initial adoption, January 1, 2017. The right-of-use asset is initially measured at cost and is subsequently depreciated using the straight-line method from the start date of the contract and until the end of the useful life of the right-of-use asset or at the end of the lease term, which occurs first. The lease liability is initially measured at the present value of the remaining lease payments at the commencement date, using a discount rate for each asset. With the support of external valuation specialist, the Group carried out the review of the contracts of lease to analyze which of them comply with applicable regulations and determine the amounts to be recognized by right-of-use assets and liabilities for lease. We consider as a key issue of our audit, the appropriate determination of the asset and liability for each lease, given the importance of the impacts on the financial statements derived from the adoption method used by the Group and the inherent judgment required to determine the assumptions used in the calculation of the applicable rights and obligations thereof.	As part of our audit procedures, we have evaluated and questioned the significant judgments made by Management and the external valuation specialists hired by the Company as described below, and evaluated the objectivity and competence of the latter. Together with our valuation specialists, we evaluated: – The process followed by Management for the adoption and determination of the effects of the regulations in force in the year on leases. – We evaluate the integrity of the lease contracts. – The reasonableness of the analysis made by Management on whether the contracts contain the characteristics of an operating lease. – The reasonableness of calculations of the assets by right of use and liabilities by right of use, considering the methodology of the applicable regulations. – We assess that the discount rates applicable to the lease contracts used by Management were appropriate in accordance with the guidelines established in the current regulation. – We assess the reasonable certainty of reasonableness to exercise the lease term option in accordance with the conditions of each contract. – The adequacy of the disclosures in the notes to the Group's consolidated financial statements.

Determination of the fair value of plants, facilities and equipment

See note 9 to the consolidated financial statements

Key Audit Matter	How the key matter was addressed in our audit
During 2019 it was carried out the process of reallocation of plants used for the generation of electrical energy between the Group companies, in accordance with the agreement published on March 25, 2019, in the Official Gazette. Derived from this reassignment, and based on current regulations, the plants used for the generation of electrical energy were revalued to determine and record the corresponding fair value. With the support of external valuation specialists, the Group carried out the review of the fair values considering the market conditions and information. The plant revaluation process is a complex process that involves a high degree of judgment, based on assumptions that may be affected by future economic and market conditions, such as, among others, the income rates to be used by the different cash generating units in the short and long term, their costs, projected profit margins and discount rate. Taking into account the description of the aforementioned process, we evaluate the determination of fair value as our key audit matter.	As part of our audit procedures, we have evaluated: The assumptions used by the Group, particularly those related to income, costs, and profit margins, as well as the discount rate and the significant judgments made by Management and their external valuation specialists. The objectivity and competence of the external valuation specialists hired by the Group. With the participation of our valuation specialists, the assumptions and the methodology used by the Group, particularly those related to the reasonableness of the valuation method used and the determination of the discount rate. The adequacy of the disclosures in the notes to the Group's consolidated financial statements.

Emphasis of Matter – Comparative information

During 2019, were made accounting changes that are disclosed in Note 4 to the consolidated financial statements. As a result, the consolidated financial statements as of December 31, 2018, and 2017 and the statement of financial position as of January 1, 2017, were restated retrospectively. Our opinion has not been modified in respect of this matter.

Other Information

Management is responsible for the other information. The other information comprises the Annual Report corresponding to the annual period ended on December 31, 2019, that shall be filed to the National Banking and Securities Commission and the Mexican Stock Exchange (Annual Report), but does not include the consolidated financial statements and our auditors' report thereon. The Annual Report is estimated will be available to us after the date of this auditor's report.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information when is available and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or whether appears to be materially misstated.

If, based on the work performed, we conclude that there is a material misstatement in that other information, we are required to report that fact to those charged with governance of the Company.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRS and for such internal control as Management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Entity or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Entity's financial reporting process.

Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Entity to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Entity to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication. .

KPMG Cárdenas Dosal S. C.

Eduardo Palomino

Mexico City, June 30, 2020.

Comisión Federal de Electricidad,
Productive State Enterprise and Subsidiaries

December 31, 2019, 2018 and 2017

Consolidated statements of financial position

(Thousands of pesos)

These financial statements have been translated from the Spanish language original and for the convenience of foreign/ English-speaking readers.

Assets		2019	2018 (restated)	2017 (restated)
Current assets:				
Cash and cash equivalents (note 6)	$	89,339,037	78,483,263	67,237,901
Accounts receivable, net (note 7)		86,672,574	99,175,895	95,067,522
Inventory of materials for operation, net (note 8)		21,533,937	15,537,465	14,642,993
Total current assets		197,545,548	193,196,623	176,948,416
Loans to employees		13,777,331	12,367,878	12,339,193
Plants, facilities and equipment, net (note 9)		1,211,303,643	1,186,590,258	1,190,848,303
Right-of-use assets, net (note 10)		474,376,421	346,800,570	309,221,076
Derivative financial instruments (note 12)		4,064,335	17,783,141	16,084,937
Intangibles and other assets (note 11)		38,638,865	34,288,797	32,836,986
Deferred tax assets		167,193,651	171,333,172	76,831,851
	$	2,106,899,794	1,962,360,439	1,815,110,762

Liabilities and equity		2019	2018 (restated)	2017 (restated)
Current liabilities:				
Short-term maturities of:				
Short-term debt (note 13)	$	53,896,802	39,829,270	48,497,882
Lease liabilities (note 14)		11,074,905	26,856,724	15,726,965
Other payables and accrued liabilities (note 15)		86,174,724	112,844,639	110,275,296
Income tax		6,187,526	3,823,719	2,828,070
Total current liabilities		157,333,957	183,354,352	177,328,213
Non-current:				
Long-term debt (note 13)		299,531,948	314,795,714	287,052,809
Lease liabilities (note 14)		556,838,326	429,589,272	404,067,545
Other long-term liabilities (note 16)		23,057,198	20,451,195	23,424,667
Long-term employees benefits (note 17)		426,860,559	327,452,589	361,780,339
Total non-current liabilities		1,306,288,031	1,092,288,770	1,076,325,360
Total liabilities		1,463,621,988	1,275,643,122	1,253,653,573
Equity:				
Contributions received from the Federal Government		5,251	5,251	5,251
Contributions in kind received from the Federal Government		95,004,417	95,004,417	95,004,417
Retained earnings		129,091,018	108,125,282	49,750,003
Other comprehensive income		400,029,909	466,085,725	416,697,518
Total equity holders of the parent		624,130,595	669,220,675	561,457,189
Non-controlling interests		19,147,211	17,496,642	
Contingencies and commitments (note 22)				
	$	2,106,899,794	1,962,360,439	1,815,110,762

See accompanying notes to consolidated financial statements.

Comisión Federal de Electricidad,
Productive State Enterprise and Subsidiaries

For the years ended December 31, 2019, 2018 and 2017

Consolidated statements of comprehensive income

(Thousands of pesos)

These financial statements have been translated from the Spanish language original and for the convenience of foreign/ English speaking readers.

		2019	2018 (restated)	2017 (restated)
Revenues:				
Electricity supply service revenue (note 22)	$	415,314,988	375,707,624	365,358,887
Subsidy income		75,185,800	81,405,300	65,914,800
Third party fuel revenue		38,308,467	59,571,662	22,022,929
Freight revenue		4,537,438	6,176,843	4,986,642
Other income, net		22,805,635	24,484,835	31,322,284
Total revenue		**556,152,328**	**547,346,264**	**489,605,542**
Costs:				
Energy and other fuel supplies		234,999,995	259,644,225	216,120,744
Energy and other fuel supplies - Third party		35,544,104	50,993,057	19,138,000
Salaries and related costs		69,018,628	63,152,703	57,885,419
Maintenance, materials and general services		14,278,998	23,348,610	19,554,823
Taxes and duties		2,281,474	3,800,709	2,603,543
Wholesale Electricity Market costs (MEM)		3,156,925	3,015,572	2,693,373
Employee benefits costs		35,900,194	20,539,778	47,903,316
Depreciation		65,753,190	70,350,100	69,895,200
Other expenses		14,553,176	7,673,382	(180,117)
Total costs		**475,486,684**	**502,518,136**	**435,614,301**
Operating results		**80,665,644**	**44,828,128**	**53,991,241**
Comprehensive financing result, net:				
Interest expense		42,037,479	47,766,777	33,911,066
Finance income		(3,671,690)	(602,944)	-
Finance cost		11,560,160	4,415,580	-
Foreign exchange (income) loss		(21,961,332)	(2,205,941)	(14,325,740)
Total comprehensive financing results, net		**27,964,617**	**49,373,472**	**19,585,326**
Income (loss) before income tax other comprehensive income		52,701,027	(4,545,344)	34,405,915
Income tax (note 18)		27,027,331	(66,170,650)	(73,302,892)
Net income		**25,673,696**	**61,625,306**	**107,708,807**
Net income attributable to:				
Controlling interests		20,965,736	58,375,279	107,708,807
Non-controlling interests		4,707,960	3,250,027	-
		25,673,696	61,625,306	107,708,807
Other comprehensive income (note 19):				
Items that will not be reclassified subsequently to profit or loss				
Revaluation of plants, facilities and equipment		27,466,275	1,580,651	(28,681,250)
Remeasurements of defined benefit liabilities		(103,819,133)	39,591,661	(12,192,264)
Deferred comprehensive income tax		16,982,786	20,505,785	0
		(59,370,072)	61,678,097	(40,873,514)
Items that may be reclassified subsequently in profit or loss				
Effect of translation into the functional currency		-	(37,393)	(82,933)
Cash flow hedging		(6,685,744)	(12,252,497)	10,401,629
		(6,685,744)	(12,289,890)	10,318,696
Total other comprehensive (loss) income		(66,055,816)	49,388,207	(30,554,818)
Comprehensive income	$	**(40,382,120)**	**111,013,513**	**77,153,989**

See accompanying notes to consolidated financial statements

Comisión Federal de Electricidad
Productive State Enterprise and Subsidiaries

For the years ended December 31, 2019, 2018 and 2017

Consolidated statements of changes in equity

(Thousands of pesos)

These financial statements have been translated from the Spanish language original and for the convenience of foreign/ English speaking readers.

	Contributions received from the Federal Government	Contributions in kind from the Federal Government	Acumulated results	Other comprehensive income (loss)	Total equity controlling interests	Total equity non-controlling interest	Total equity
Balances at December 31, 2016	$ 5,251	95,004,417	(8,043,541)	447,252,336	534,218,463	-	534,218,463
Adjustments from adoption of IFRS 16 (note 4)	-	-	(49,915,263)	-	(49,915,263)	-	(49,915,263)
Balance at January 1st, 2017	5,251	95,004,417	(57,958,804)	447,252,336	484,303,200	-	484,303,200
Comprehensive income of the period	-	-	107,708,807	(30,554,818)	77,153,989	-	77,153,989
Balances at December 31, 2017 restated	5,251	95,004,417	49,750,003	416,697,518	561,457,189	-	561,457,189
Non-controlling interest	-	-	-	-	-	15,494,065	15,494,065
Comprehensive income of the period	-	-	58,375,279	49,388,207	107,763,486	3,250,027	111,013,513
Distributions to Fibra E shareholders	-	-	-	-	-	(1,247,450)	(1,247,450)
Balances at December 31, 2018	5,251	95,004,417	108,125,282	466,085,725	669,220,675	17,496,642	686,717,317
Comprehensive income of the period			20,965,736	(66,055,816)	(45,090,080)	4,707,960	(40,382,120)
Issue of shares	-	-	-	-	-	(905,969)	(905,969)
Dividend decree	-	-	-	-	-	(2,151,422)	(2,151,422)
Balances at December 31, 2019	**$ 5,251**	**95,004,417**	**129,091,018**	**400,029,909**	**624,130,595**	**19,147,211**	**643,277,806**

See accompanying notes to consolidated financial statements

Comisión Federal de Electricidad, Productive State Enterprise and Subsidiaries

For the years ended 31 December 2019, 2018 and 2017

Consolidated statements of cash flows

(Thousands of pesos)

These financial statements have been translated from the Spanish language original and for the convenience of foreign/ English speaking readers.

		2019	**2018 (restated)**	**2017 (restated)**
Cash flows from operating activities:				
Net income	$	25,673,696	61,625,306	107,708,807
Operating activities:				
Employee benefits costs		35,900,194	20,539,778	47,903,316
Increase in provisions of deferred and current income tax		27,027,331	(66,170,650)	(73,302,892)
Investing activities:				
Depreciation and right-of-use assets		65,753,190	70,350,100	69,895,200
Disposal of plants, facilities and equipment		6,321,114	1,008,377	15,872,657
Foreign exchange loss, interest expense and changes in finantial derivative instruments fair value of financial instruments		21,022,946	44,408,342	5,938,133
Changes in operating assets and liabilities:				
Accounts receivable and loans to employees		12,503,321	(4,108,373)	(31,831,331)
Inventory of materials of operation		(5,996,472)	(894,472)	(617,228)
Other assets		(5,759,522)	(1,480,495)	(1,338,651)
Other payables and accrued liabilities		(27,676,638)	(7,233,368)	21,385,878
Payments to employees benefits		(40,239,930)	(39,534,335)	(35,045,000)
Net cash flows from operating activities		114,529,230	78,510,210	126,568,889
Cash flows from investing activities:				
Acquisition of plants, facilities and equipment		(49,003,397)	(46,114,216)	(69,787,540)
Cash flows from financing activities:				
Proceeds from debt		44,163,417	91,373,548	61,201,355
Non-controlling interest contribution Fibra E		(905,969)	15,494,065	-
Dividends paid		(2,151,422)	(1,247,450)	-
Payment of debt		(38,017,119)	(78,934,168)	(46,789,232)
Interest paid		(21,925,609)	(22,053,366)	(26,093,619)
Payment of lease obligations		(40,455,722)	(24,741,358)	(16,597,688)
Payments of financial instruments		(9,505,643)	(10,893,772)	(9,265,343)
Collections from financial instruments		14,128,008	9,851,869	5,734,135
Net cash from financing activities		(54,670,059)	(21,150,632)	(31,810,392)
Cash excess of financing activities		10,855,774	11,245,362	24,970,957
Cash and cash equivalents:				
At beginning of period		78,483,263	67,237,901	42,266,944
At end of period	$	89,339,037	78,483,263	67,237,901

See accompanying notes to consolidated financial statements

1. Incorporation, Business Purpose and Relevant Events

- **Incorporation and business purpose**

Comisión Federal de Electricidad, Productive State Enterprise, its subsidiaries, affiliates and trusts (CFE or the Company) is a Mexican entity that was incorporated by Decree as a Decentralized Public Entity of the Federal Government on August 14, 1937 and published in the Official Gazette on August 24, 1937. The consolidated financial statements accompanying these notes include Comisión Federal de Electricidad, Productive State Enterprise (as the ultimate controlling entity of the economic group to which it belongs) and its subsidiaries, affiliates and trusts over which it exercises control (See Note 3a).

The Comisión Federal de Electricidad Law (CFE Law) was published on August 11, 2014 and became effective on October 7, 2014. The CFE Law mandated the transformation of CFE into a Productive State Enterprise.

CFE's business purpose is to provide public transmission and distribution of electricity services on behalf of the Mexican State. CFE also engages in activities related to the generation and commercialization of electricity, as well as activities related to the import, export, transportation, storage and trading of natural gas, among others.

<u>Assets contributed by the Federal Government</u>

On October 7, 2015, the Ministry of Public Administration (SFP, Spanish acronym) through the Institute of Management and Valuation of National Assets (INDAABIN, Spanish acronym), terminated the commodatum agreement of the assets contributed by the Federal Government, and delivered the assets with a certificate of delivery that includes annexes for the different types of assets to CFE.

CFE also obtained the legal and physical possession of the related assets, as per the aforementioned annexes. The procedures for the legal divestiture of these assets from the Federal public domain regime began as of such date. These assets were included in the consolidated statements of financial position as at December 31, 2015, at a value of $95,004,417, as determined by the Asset Management and Divestiture Service (SAE, Spanish acronym), which will be adjusted based on the detailed breakdown by each of the corresponding areas. In 2016, these assets are included in the Plants, facilities and equipment and Other intangible assets captions (see Notes 8 and 9), and an additional amount of $63,000 was recognized related to these types of assets. As at December 31, 2019, this activity is still ongoing.

<u>Amendments to the Collective Labor Agreement</u>

On May 19, 2016, CFE carried out a review of the terms of the Collective Labor Agreement it entered into with the Sole Union of Electricity Workers of the Mexican Republic (“SUTERM”, Spanish acronym).

As shown in Note 15, as a result of this review, various clauses that mainly affect the retirements caption were amended and are presented as a reduction in the Company's labor obligations.

Assumption of the Company's employee benefits liability by the Federal Government

On November 14, 2016, the Ministry of Finance and Public Credit (SHCP, Spanish acronym) published the "Agreement through which the general provisions related to the assumption by the Federal Government of CFE's employee benefits liability are issued" in the Official Gazette, whereby the Federal Government through the SHCP, assumes a portion of the pension and retirement payment obligation actuarially recognized and accounted for in CFE's financial statements, that correspond to the workers that were hired on or prior to August 18, 2008.

The Federal government had stated that it would assume a portion of CFE's labor liabilities, and this would be equal, peso by peso, to the reduction that would be achieved from the labor obligations liability at the time the Collective Labor Agreement is renegotiated. On December 29, 2016, the Federal Government announced that it had completed its review process of the amount of savings related to CFE's labor obligations as a result of the amendments to the collective labor agreement.

On December 19, 2016, through official document No. 35.-187/2016, the Public Credit Unit of the SHCP informed CFE that the Federal Government's commitment to pay would be assumed by the SHCP through the issue of debt instruments by the Federal Government in favor of CFE for a total amount of $161,080,204, distributed in amounts that will be delivered annually to cover such commitment.

- **Relevant Events**

Asset Reorganization

On May 24, 2019, through Official Communication DG/131/2019, the proposal for the reallocation of assets and power generation contracts corresponding to productive subsidiary companies (EPS, Spanish acronym) I, II, III, IV and VI, as well as well as the proposal related to the Laguna Verde Power Plant and Mobile Emergency Units, were submitted for consideration.

The objectives of the reorganization of assets and power generation contracts included:

- To enhance the operational and administrative efficiency of each regional company based on the organization that was in place prior to the entry into force of the Terms for the Strict Legal Separation of CFE.

- The operational regionalization of the assets of the hydroelectric plants shall be grouped in a way that gives priority to the common river basins so as to ensure the security and optimal management of the water supply and reservoirs.

- The redistribution shall affect only the plants operated by the EPS's of CFE and shall not involve any of the external legacy plants that are part of EPS Generación V.

- In light of the high degree of reliability and security of the National Electric System, it was decided to have the Mobile Emergency Units be part of the Unregulated Business Office in order to facilitate faster decision-making and the rapid mobilization of assets in response to the needs of the National Electric System in the various regions of the country.

- To maintain in the Company the business unit that includes the Laguna Verde Power Plant that participates in the Wholesale Electricity Market (MEM).

- The existence of Legacy Contracts with CFE Suministrador de Servicios Básicos (SSB).

As part of the asset reorganization, the Company conducted a study to determine the fair value of the plants that were involved in the reorganization. This analysis resulted in an impairment charge of $57,016,640 and an unrealized gain on revaluation of power plants of $84,480,710. These amounts were recognized in other comprehensive income.

As shown in Note 9, the main effects of this asset reorganization were adjusted and disclosed.

<u>Infrastructure investment trust</u>

On February 7, 2018, CFE placed an issue for the first Energy and Infrastructure Investment Trust or Fibra E, (Fiduciary Stock Certificates [CBFEs] for investment in energy and infrastructure) through the Mexican Stock Exchange. The total placement was for a total amount of $16,388 million pesos and it is the first Fibra E in which domestic and foreign investors participated, highlighting the participation of institutional investors, private banks and investment funds from Mexico, United States, Canada, Australia and Europe.

The Fibra E structure is comprised of the Irrevocable Trust of Administration and Source of Payment No. 80757 (hereinafter the Promoted Trust), the Irrevocable Trust of Issuance of Stock Certificates CIB/2919 (hereinafter Fibra E) and CFE Capital.

A detailed description of the activities of each of these Trusts and CFE Capital Trusts is as follows:

<u>Promoted Trust</u>

The irrevocable Trust of Administration and Source of Payment No. 80757 was incorporated on January 22, 2018 to acquire the collection rights derived from the Agreement for the Technical and Commercial Operation of Electricity Transmission entered into with the National Energy Control Center (CENACE, Spanish acronym) on March 28, 2016

As part of the structure of the Promoted Trust, CFE Transmisión irrevocably ceded and transferred to the Promoted Trust the collection rights pursuant to the Contract entered into with CENACE for a period of 30 years; in exchange for these rights, the Promoted Trust issued full ownership of the trustee rights to CFE Transmisión. Subsequently, through funding provided by the issuance of Fibra E in the market, Fibra E purchased up to 6.78% of the instruments in exchange for $15,454,653 in cash, net of issuance costs totaling $756,060, and securities totaling $5,403,571 ceded to CFE Transmisión, equal to 25% of the total number of shares issued by Fibra E.

The main activities of the Promoted Trust include:

1. Receiving, managing, and maintaining the contributed collection rights;
2. Opening, managing, and maintaining fiduciary bank accounts;
3. Making the transfers and payments established in the trust agreement;
4. Evaluating any reimbursements of unbudgeted expenditures requested by CFE Transmisión;
5. Receiving payments made against the collection rights and any other rights derived from the agreement with CENACE;
6. Exercising any other rights arising from the agreement with CENACE;
7. Complying with the instructions provided by the Trustor, the Technical Committee, or the beneficiaries to the extent that they are authorized to do so in accordance with the terms of the trust agreement.

Issuing Trust (Fibra E)

The Fibra E trust entered into by CI Banco, S. A., Institución de Banca Múltiple, Monex Casa de Bolsa, S.A. de C.V. and Monex Grupo Financiero (FIBRA E) was created on January 22, 2018, as a trust for the issuance of Fiduciary Stock Certificates (CBFEs).

The primary purpose of the Trust is to invest in eligible entities, whose exclusive activity consists of:

1. Investing in assets and projects related to Generation, Transmission and Distribution of Electricity, and Infrastructure Projects.
2. Investing in or performing any other activity provided for in the FIBRA E tax regulations, as well as in Rule 3.21.3.9. of the Miscellaneous Tax Resolutions or any other tax law that replaces such.

The initial asset of the Trust consists of Beneficiary Rights that have an economic ownership interest in the Promoted Trust.

CFE Capital

The primary purpose of this entity is to manage all types of trusts and their property, including the Fibra E and the Promoted energy and infrastructure investment trusts created in conformity with current tax legislation, including but not limited to, all the activities and acts deemed necessary or suitable for such purpose, and to provide all types of administration, operation, development and regulatory compliance services.

CFE Telecomunicaciones e internet para todos

On August 2, 2019, CFE Telecomunicaciones e Internet para Todos, EPS was created. The corporate purpose of this company is to provide non-profit telecommunications services pursuant to its wider effort to guarantee the right to access to information and communications technologies, including broadband internet.

In terms of its budget, debt obligations, acquisitions, leases, services and projects, administrative responsibilities, remunerations, assets and the state dividend, the Company shall operate in accordance with the special regime provided for this purpose by law. CFE Telecomunicaciones e Internet para Todos shall manage its assets based on its budget and authorized programs, in accordance with the applicable legal provisions and with the special regime established by law.

2. Basis of preparation and of the consolidated financial statements

a) Basis of accounting

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB).

b) Basis of measurement

The consolidated financial statements have been prepared on the historical-cost basis except for the Company's derivative financial instruments, right-of-use assets, plants, facilities and equipment, as well as its debt and lease liabilities, which are recognized at fair value, and the defined benefit plans which are recognized at the present value of the defined benefit obligation less the fair value of the plan assets.

c) Functional currency and presentation of financial statements

The consolidated financial statements and notes thereto are presented in Mexican pesos, the Company's reporting currency, which is the same as its functional currency.

For purposes of disclosure in the notes to the consolidated financial statements, all references to “pesos” or "$" refer to Mexican pesos; all references to “dollars” refer to U.S. dollars; all references to “euros” refer to the legal currency of the European Union; all references to “yen” refer to the legal currency of Japan; and all references to “Swiss francs” refer to the legal currency of Switzerland. The financial information is presented in thousands of pesos and has been rounded to the nearest unit, except where otherwise indicated.

d) Use of judgments and estimates

In preparing these consolidated financial statements, estimates have been made for certain items, some of which are highly uncertain and their estimation involves judgments made based on the information available. The following discussion includes some of the matters that could materially affect the consolidated financial statements if (1) the estimates that are used are different than the ones that could reasonably have been used, or (2) the estimates change in the future in response to changes that are likely to occur.

The discussion below addresses only those estimates that the Company considers most important based on the degree of uncertainty and the likelihood of a material impact if a different estimate were used. There are many other areas in which the Company uses estimates about uncertain matters, but the reasonably likely effect of using different estimates is not material to the Company's financial presentation of these areas.

1) Judgments

Information about judgments made in applying accounting policies that have the most significant effect on the amounts recognized in the financial statements is included in the following notes:

- Note 3 m) - revenue recognition: whether revenue from unbilled electricity delivered is recognized over time or at a point in time;

- Note 3 n) - leases: whether an arrangement contains a lease and classification of leases.

- Note 3 a) - consolidation: whether the Company has de facto control over an investee.

2) Assumptions and estimation uncertainties

Information about assumptions and estimation uncertainties at December 31, 2019 that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities in the next financial year is included in the notes on the following page.

- Note 3(m)- revenue recognition: estimate of revenue from unbilled electricity delivered;
- Note 3(j) and 17 - measurement of defined benefit obligations: key actuarial assumptions;
- Note 3(k) and 18 - recognition of deferred tax assets: availability of future taxable profit against which deductible temporary differences and tax losses carried forward can be utilized;
- Notes 3(h) and 9 - impairment test of property, plant and equipment: key assumptions underlying recoverable amounts, including the recoverability and magnitude of an outflow of economic resources and key assumptions in determining their useful lives.
- Notes 3(i) and 10 - impairment test of intangible assets and goodwill: key assumptions underlying recoverable amounts, including the recoverability and magnitude of an outflow of economic resources and key assumptions in determining their useful lives.
- Note 3(l) - recognition and measurement of provisions and contingencies: key assumptions about the likelihood and magnitude of an outflow of resources;
- Note 3(d) - measurement of the expected credit losses for trade receivables: key assumptions in determining the weighted-average loss rate; and
- Note 21 - contingencies and commitments.

Measurement of fair values

A number of the Company's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities.

CFE has an established control framework with respect to the measurement of fair values. This includes a valuation team that has overall responsibility for overseeing all significant fair value measurements, including Level 3 fair values, and reports directly to the Chief Financial Officer.

The valuation team regularly reviews significant unobservable inputs and valuation adjustments. If third party information, such as broker quotes or pricing services, is used to measure fair values, then the valuation team assesses the evidence obtained from the third parties to support the conclusion that these valuations meet the requirements of the Standards, including the level in the fair value hierarchy in which the valuations should be classified.

When measuring the fair value of an asset or a liability, the Company uses observable market data as far as possible. Fair values are categorized into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows.

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.

- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).

- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

If the inputs used to measure the fair value of an asset or a liability fall into different levels of the fair value hierarchy, then the fair value measurement is categorized in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

The Company recognizes transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

e) Consolidated statements of comprehensive income

The Company has elected to present comprehensive income using a 'one-statement' approach that includes all of its profit or loss and other comprehensive income (OCI) items, called Statement of Comprehensive Income.

The accompanying consolidated statements of comprehensive income present ordinary costs and expenses based on their nature, since management believes that this structure results in clearer information for the reader. The consolidated statements of comprehensive income include a line item for operating profit (loss), which represents CFE's revenue minus costs, since management believes that including this item facilitates the reader's understanding of the Company's economic and financial performance.

3. The significant accounting policies followed by the Company in the preparation of the financial statements are summarized below:

a) Basis of consolidation

The consolidated financial statements include the subsidiaries, affiliates and trusts over which the Company exercises control. The financial statements of the subsidiaries were prepared for the same reporting period and using the same accounting policies as those of the Company. The Company controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

CFE reassesses whether or not it controls an entity and whether the facts and circumstances indicate that there are changes in one or more of the control elements.

The subsidiaries are consolidated on a item-by-item basis as of the date on which CFE obtained control. Intercompany balances and transactions, and any unrealized income and expenses arising from intercompany transactions, are eliminated. Unrealized gains arising from transactions with equity method investees are eliminated proportionally to the Company's interest in the investee. Unrealized losses are eliminated in the same way as unrealized gains, but only to the extent that there is no evidence of impairment.

The equity interest in the main subsidiaries (productive subsidiary companies, affiliated entities and trusts), over which CFE retains control as of December 31, 2019, 2018 and 2017 is as follow:

Subsidiary Companies

- CFE Distribución, EPS; CFE Transmisión, EPS; CFE Generación I, EPS; CFE Generación II, EPS; CFE Generación III, EPS; CFE Generación IV, EPS; CFE Generación V, EPS; CFE Generación VI, EPS, and CFE Suministrador de Servicios Básicos, EPS.

Affiliated Entities

- CFE Suministro Calificados, S. A. de C. V., CFE International, LLC., CFEnergía, S. A. de C. V., CFE Intermediación de Contratos Legados, S. A. de C. V., and CFE Capital, S. de R. L. de C. V.

The entities listed above were incorporated and their main place of business is in Mexico, except for CFE International LLC, which is located in the United States.

The Company’s equity interest in the entities mentioned above is 100%.

The trust funds controlled by CFE are as follows:

Trust fund	Role of CFE			Type of project
	Trustor	Trust Beneficiary	Trustee	
Trust Management and Transfer of Ownership 2030	CFE	Primary beneficiary: contract awardees. Second beneficiary: CFE	BANOBRAS, S. N. C.	Conditioned investment
Trust for the establishment of a Revolving Financing Fund for the Housing Thermal Isolation Program of the Valley of Mexicali, B.C.	CFE	CFE	BANOBRAS, S. N. C.	Energy saving
Prior Expense Trust	CFE	CFE	BANCOMEXT, S. N. C.	Direct investment

Non-controlling interest

Changes in the Company's interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

b) Foreign currency transactions

Transactions in foreign currencies are translated into the respective functional currencies of CFE's companies at the exchange rates at the dates of the transactions.

Monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the exchange rate at the reporting date. Non-monetary assets and liabilities that are measured at fair value in a foreign currency are translated into the functional currency at the exchange rate when the fair value was determined.

Non-monetary items that are measured based on historical cost in a foreign currency are translated at the exchange rate at the date of the transaction. Foreign currency differences are generally recognized in profit or loss and presented within finance costs.

However, foreign currency differences arising from the translation of the following items are recognized in other comprehensive income (OCI):

- A financial liability designated as a hedge of the net investment in a foreign operation to the extent that the hedge is effective.

- Qualifying cash flow hedges to the extent that the hedges are effective.

The financial statements of foreign operations are translated into the reporting currency, initially determining whether the functional currency and reporting currency of the foreign operation are different and, subsequently, the functional currency is translated into the reporting currency using the historical exchange rate and/or the closing exchange rate at the end of the year.

Transactions in foreign currencies are translated at the exchange rate prevailing on the date of the related transactions. Monetary assets and liabilities denominated in foreign currencies are valued in local currency at the closing exchange rate prevailing at the date of the consolidated financial statements and at the historical or average exchange rate in profit or loss; exchange differences between the transaction date and the payment or collection date are recognized in profit or loss and presented within finance costs.

c) Cash and cash equivalents

Cash and cash equivalents consist of cash, bank deposits, foreign currencies, and short-term temporary investments. Cash and bank deposits are presented at nominal value and the returns on these investments are recognized in the income statement as they accrue.

Cash equivalents include short-term highly liquid investments and are valued at fair value, and the risk of changes in their value is insignificant.

d) Financial instruments

i) Initial recognition and measurement

Accounts receivable are recognized when they are originated. All other financial assets and financial liabilities are initially recognized when the Company becomes a party to the contractual provisions of the instrument.

A financial asset (unless it is an account receivable without a significant financing component) or financial liability is initially measured at fair value plus, for an item not at fair value through profit or loss, transaction costs that are directly attributable to its acquisition or issue. An account receivable without a significant financing component is initially measured at the transaction price.

ii) Classification and subsequent measurement - Financial assets

On initial recognition, a financial asset is classified as measured at: amortized cost; at fair value through other comprehensive income - debt investment; at fair value through other comprehensive income - equity investment; or at fair value through profit or loss.

Financial assets are not reclassified subsequent to their initial recognition unless the Company changes its business model for managing financial assets, in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

Financial assets are classified as measured, subsequent to their initial recognition, at amortized cost, fair value through other comprehensive income and fair value through profit or loss.

The Company measures financial assets at amortized cost if it meets both of the following conditions:

1. The asset is held within a business model whose objective is to hold assets to collect contractual cash flows.

2. The contractual terms of the asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

All the financial assets not classified as measured at amortized cost or at fair value through other comprehensive income as described above are measured at fair value through profit or loss. This includes all derivative financial instruments (see Note 11 (a)). On initial recognition, the Company may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortized cost or at fair value through other comprehensive income as at fair value through profit or loss if doing so eliminates or significantly reduces a measurement or recognition mismatch that would otherwise arise.

Business model assessment:

The Company makes an assessment of the objective of the business model in which an asset is held at a portfolio level because this best reflects the way the business is managed, and information is provided to management. The information considered includes:

- The stated policies and objectives for the portfolio and the operation of those policies in practice. These include whether management's strategy focuses on earning contractual interest income, maintaining a particular interest rate profile, matching the duration of the financial assets to the duration of any related liabilities or expected cash outflows or realizing cash flows through the sale of the assets;

- How the performance of the portfolio is evaluated and reported to the Company's management;

- The risks that affect the performance of the business model (and the financial assets held within that business model) and how those risks are managed;

- How managers of the business are compensated (e.g. whether compensation is based on the fair value of the assets managed or the contractual cash flows collected); and

- The frequency, volume and timing of sales of financial assets in prior periods, the reasons for such sales and its expectations about future sales activity.

Transfers of financial assets to third parties in transactions that do not qualify for derecognition are not considered sales for this purpose, consistent with the Company's continuing recognition of the assets.

Financial assets that are held for trading or are managed and whose performance is evaluated on a fair value basis are measured at fair value through profit or loss.

<u>Financial assets - Assessment whether contractual cash flows are solely payments of principal and interest:</u>

For the purposes of this assessment, 'principal' is defined as the fair value of the financial asset on initial recognition. 'Interest' is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs (e.g. liquidity risk and administrative costs), as well as profit margin.

In assessing whether the contractual cash flows are solely payments of principal and interest, the Company considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition. In making the assessment, the Company considers:

- contingent events that would change the amount or timing of cash flows;

- terms that may adjust the contractual coupon rate, including variable-rate features;

- prepayment and extension features;

- terms that limit the Company's claim to cash flows from specified assets (e.g. non-recourse asset features).

A prepayment feature is consistent with the solely payments of principal and interest criterion if the prepayment amount substantially represents unpaid amounts of principal and interest on the principal amount outstanding, which may include reasonable additional compensation for early termination of the contract.

Additionally, for a financial asset acquired at a discount or premium to its contractual par amount, a feature that permits or requires prepayment at an amount that substantially represents the contractual par amount plus accrued (but unpaid) contractual interest (which may also include reasonable compensation for early termination) is treated as consistent with this criterion if the fair value of the prepayment feature is insignificant at initial recognition.

Financial Assets - Subsequent measurement and gains and losses:

Financial assets at fair value through profit or loss

- These assets are subsequently measured at fair value. Net gains and losses, including any interest income, are recognized in profit or loss. However, for derivatives designated as hedging instruments.

Financial assets at amortized cost

- These assets are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment are recognized in profit or loss. Any gain or loss on derecognition is recognized in profit or loss

Financial liabilities - Classification, subsequent measurement and gains and losses:

Financial liabilities are classified as measured at amortized cost or fair value through profit or loss. A financial liability is classified as at fair value through profit or loss if it is classified as held-for-trading, it is a derivative, or it is designated as such on initial recognition. Financial liabilities at fair value through profit or loss are measured at fair value and net gains and losses, including any interest expense, are recognized in profit or loss. Other financial liabilities are subsequently measured at amortized cost using the effective interest method. Interest income and foreign exchange gains and losses are recognized in profit or loss. Any gain or loss on derecognition is also recognized in profit or loss.

iii) Derecognition

Financial assets

The Company derecognizes a financial asset when the contractual rights to the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Company neither transfers nor retains substantially all of the risks and rewards of ownership and does not retain control of the financial asset.

Financial liabilities

The Company derecognizes a financial liability when its contractual rights are paid or canceled, or expire. The Company also derecognizes a financial liability when its terms are modified and the cash flows of the modified liability are substantially different. in which case, a new financial liability based on the modified terms is recognized at fair value.

On derecognition of a financial liability, the difference between the carrying amount extinguished and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognized in profit or loss.

iv) Offsetting

Financial assets and financial liabilities are offset and the net amount presented in the statement of financial position when, and only when, the Company currently has a legally enforceable right to set off the amounts and it intends either to settle them on a net basis or to realize the asset and settle the liability simultaneously.

v) Derivative financial instruments and hedge accounting

Derivative financial instruments are recognized at fair value in the statement of financial position. The fair value of derivative financial instruments is determined using generally accepted valuation techniques. Consistent with the risk strategy, the Company enters into derivative financial instruments contracts to mitigate foreign exchange and interest rate risks, through Interest-Rate Swaps, Cross-Currency Swaps and Foreign Exchange Forwards.

The policies include formal documentation of all the transactions between the hedging instrument and the hedged item, the risk management objective, and strategy for undertaking the hedge.

The effectiveness of derivative financial instruments designated as hedges is assessed prior to their designation, as well as over the hedging period, which depends on the features of the hedge. When it is determined that a derivative is not highly effective as a hedge, the Company discontinues hedge accounting prospectively.

The Company discontinues cash flow hedge accounting when the derivative expires, is terminated or exercised, when the derivative is not highly effective in achieving offsetting changes in the fair value or cash flows attributable to the hedged item, or when the Company decides to cancel the hedging designation. The gains or losses recognized in Other comprehensive income and accumulated in Equity, remain in Equity and are recognized when the forecast transaction is ultimately recognized in profit or loss.

The effective portion of changes in the fair value of the derivative financial instruments designated as cash-flow hedges is recognized in Equity in the Other comprehensive income caption, while any ineffective portion is recognized in profit or loss. The effective portion recognized in Equity is recycled in the income statement in the periods when the hedged item affects profit or loss and is presented in the same caption of such statement where the corresponding primary position is presented.

The hedging policies establish that derivative financial instruments that do not qualify as hedges are classified as held-for-trading; therefore, the changes in the fair value are recognized immediately in profit or loss.

a) Fair value of financial instruments

The Company holds derivative financial instruments to hedge its foreign currency and interest rate risk exposures. Embedded derivatives are separated from the host contract and accounted for separately if the host contract is not a financial asset and certain criteria are met.

Derivatives are initially measured at fair value. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are generally recognized in profit or loss.

The Company designates certain derivatives as hedging instruments to hedge the variability in cash flows associated with highly probable forecast transactions arising from changes in foreign exchange rates and interest rates and certain derivatives and non-derivative financial liabilities as hedges of foreign exchange risk on a net investment in a foreign operation

At inception of designated hedging relationships, the Company documents the risk management objective and strategy for undertaking the hedge. The Company also documents the economic relationship between the hedged item and the hedging instrument, including whether the changes in cash flows of the hedged item and the hedging instrument are expected to offset each other.

The hedged portion of derivative financial instruments is documented in the Hedge File, which includes assessments of economic relationship criteria designed to identify the relationship between the notional amount of the hedging instrument and the notional amount of the hedged item.

b) Cash flow hedges

When a derivative instrument is designated as a cash flow hedging instrument, the effective portion of changes in the fair value of the derivative is recognized in other comprehensive income and accumulated in the hedging reserve. The effective portion of changes in the fair value of the derivative that is recognized in other comprehensive income is limited to the cumulative change in fair value of the hedged item, determined on a present value basis, from inception of the hedge. Any ineffective portion of changes in the fair value of the derivative is recognized immediately in profit or loss.

The Company designates only the change in fair value of the spot element of forward exchange contracts as the hedging instrument in cash flow hedging relationships. The change in fair value of the forward element of forward exchange contracts ('forward points') is separately accounted for as a cost of hedging and recognized in a costs of hedging reserve within equity.

When the hedged forecast transaction subsequently results in the recognition of a non-financial item such as inventory, the amount accumulated in the hedging reserve and the cost of hedging reserve is included directly in the initial cost of the non-financial item when it is recognized.

For all other hedged forecast transactions, the amount accumulated in the hedging reserve and the cost of hedging reserve is reclassified to profit or loss in the same period or periods during which the hedged expected future cash flows affect profit or loss.

If the hedge no longer meets the criteria for hedge accounting or the hedging instrument is sold, expires, is terminated or is exercised, then hedge accounting is discontinued prospectively. When hedge accounting for cash flow hedges is discontinued, the amount that has been accumulated in the hedging reserve remains in equity until, for a hedge of a transaction resulting in the recognition of a non-financial item, it is included in the non-financial item's cost on its initial recognition or, for other cash flow hedges, it is reclassified to profit or loss in the same period or periods as the hedged expected future cash flows affect profit or loss.

If the hedged future cash flows are no longer expected to occur, then the amounts that have been accumulated in the hedging reserve and the cost of hedging reserve are immediately reclassified to profit or loss.

For all cash flow hedges, including hedges of transactions resulting in the recognition of non-financial items, the amounts accumulated in the cash flow hedge reserve are reclassified to profit or loss in the same period or periods during which the hedged expected future cash flows affected profit or loss.

e) Impairment in value

i. Non-derivative financial assets

Financial instruments and contract assets

The Company recognizes loss allowances for expected credit losses for:

- financial assets measured at amortized cost;
- debt investments measured at fair value with changes in other comprehensive income; and
- contract assets.

The Company also recognizes the loss allowance for expected credit losses from lease receivables, which are disclosed as part of trade receivables and other accounts receivable.

The Company measures the loss allowance at an amount equal to lifetime expected credit losses, except for the those included in the page below, which are measured at an amount equal to 12-month expected credit losses.

- debt securities that are determined to have low credit risk at the reporting date; and

- other debt securities and bank balances for which credit risk (i.e. the risk of default occurring over the expected life of the financial instrument) has not increased significantly since initial recognition.

Loss allowances for trade receivables and contract assets and contract assets are always measured at an amount equal to lifetime expected credit losses.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating expected credit losses, the Company considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Company's historical experience and informed credit assessment and including forward-looking information.

The Company assumes that the credit risk of a financial asset has increased significantly if it is more than 30 days past due.

The Company considers a financial asset to be in default when:

- the borrower is unlikely to pay its credit obligations to the Company in full; or

- the financial asset is more than 90 days past due.

The Company considers a debt security to have low credit risk when its credit risk rating is equivalent to the globally understood definition of ‘investment grade’.

Lifetime expected credit losses are the expected credit losses that result from all possible default events over the expected life of a financial instrument.

Measurement of expected credit losses

Measurement of lifetime ECLs is applied if the credit risk of the financial asset at the reporting date has increased significantly since initial recognition and measurement of 12-month ECLs is applied if the credit risk has not increased. The Company may determine that the credit risk of a financial asset has not increased significantly if the asset has low credit risk at the reporting date.

However, the measurement of lifetime expected credit losses always applies for trade receivables or contract assets that do not contain a significant financing component. The Company has elected to apply this policy for trade receivables and contract assets with a significant financing component.

Loss allowances for trade receivables and contract assets are always measured at an amount equal to lifetime expected credit losses. The Company also considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Company's historical experience and informed credit assessment and including forward-looking information.

Expected credit losses are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the Company expects to receive).

Expected credit losses are discounted at the effective interest rate of the financial asset.

Credit-impaired financial assets

At each reporting date, the Company assesses whether financial assets carried at amortized cost and debt securities at fair value through other comprehensive income are credit impaired. A financial asset is ‘credit-impaired’ when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

The Company considers the following observable data as evidence that a financial asset is credit-impaired:

- significant financial difficulty of the issuer or debtor;
- a breach of contract such as a default or being more than 90 days past due;
- restructuring of a loan or advance by the Company on terms that the Company would not consider otherwise;
- it is becoming probable that the debtor will enter bankruptcy or financial reorganization; or
- the disappearance of an active market for the financial asset because of financial difficulties.

Presentation of allowance for expected credit losses in the statement of financial position

Loss allowances for financial assets measured at amortized cost are deducted from the gross carrying amount of the assets. For debt securities at fair value through other comprehensive income, the loss allowance is charged to profit or loss and is recognized in other comprehensive income.

All financial assets not classified as measured at fair value through profit or loss were assessed at each reporting date to determine if there was objective evidence of impairment losses.

Write-off

The gross carrying amount of a financial asset is written off when the Company has no reasonable expectations of recovering a financial asset in its entirety or a portion thereof. For individual customers, the Company has a policy of writing off the gross carrying amount when the financial asset is 180 days past due based on historical experience of recoveries of similar assets. For corporate customers, the Company individually makes an assessment with respect to the timing and amount of write-off based on whether there is a reasonable expectation of recovery. The Company expects no significant recovery from the amount written off. However, financial assets that are written off could still be subject to enforcement activities in order to comply with the Company's procedures for recovery of amounts due.

ii. Non-financial assets

At each reporting date, the Company reviews the carrying amounts of its financial assets (other than operating materials and deferred tax assets) to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Goodwill is tested annually for impairment.

For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or cash-generating units.

The recoverable amount of an asset or cash generating unit is the greater of its value in use and its fair value less costs to sell. Value in use is based on the estimated future cash flows, discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or cash-generating unit.

An impairment loss is recognized if the carrying amount of an asset or cash-generating unit exceeds its recoverable amount.

Impairment losses are recognized in profit or loss. They are allocated first to reduce the carrying amount of any goodwill allocated to the cash-generating unit, and then to reduce the carrying amounts of the other assets in the cash-generating unit on a pro rata basis.

An impairment loss in respect of goodwill is not reversed. For other assets, an impairment loss is reversed only to the extent that the asset’s carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

f) Finance income and finance costs

Finance income and finance costs include the Company's finance income and finance costs. The Company's finance income and finance costs include:

- interest income;
- interest expense;
- the foreign currency gain or loss on financial assets and financial liabilities;
- impairment losses (and reversals) on investments in debt securities carried at amortized cost or fair value through other comprehensive income;
- interest expense on lease liabilities;
- hedge ineffectiveness recognized in profit or loss; and
- the reclassification of net gains and losses previously recognized in other comprehensive income on cash flow hedges of interest rate risk and foreign currency risk for borrowings.

Interest income or expense is recognized using the effective interest method. Dividend income is recognized in profit or loss on the date on which the Company's right to receive payment is established.

The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument to:

- the gross carrying amount of the financial asset; or

- the amortized cost of the financial liability.

In calculating interest income and expense, the effective interest rate is applied to the gross carrying amount of the asset (when the asset is not credit-impaired) or to the amortized cost of the liability. However, for financial assets that have become credit-impaired subsequent to initial recognition, interest income is calculated by applying the effective interest rate to the amortized cost of the financial asset. If the asset is no longer credit-impaired, then the calculation of interest income reverts to the gross basis.

g) Inventory of operating materials

Inventory of operating materials is recognized at the lower of acquisition cost or net realizable value. The unit costs of the operating materials inventory are calculated using the average cost method.

When required, the Company records provisions to recognize write downs in the value of its inventories due to impairment, obsolescence, low turnover and other circumstances that indicate that the recoverable amounts of inventories are less than their carrying amounts.

h) Plants, facilities and equipment

i) Recognition and measurement

Plants, facilities and equipment are initially measured at cost.

Plants, facilities and equipment in operation, used for the generation, transmission and/or distribution of electricity are recognized in the statement of financial position at their revalued amount, and fair value is determined as at the revaluation date, less any accumulated depreciation and impairment losses. CFE periodically reviews the fair values of its plants, facilities and equipment in operation, and every 5 years it evaluates the need to revalue its assets to ensure that the carrying amount does not differ materially from that which would be determined using fair value at the end of the reporting period.

Any increase in the revaluation of plants, facilities and equipment is recognized as a revaluation surplus in other comprehensive income, except when such increase reverses a revaluation deficit of the same asset previously recognized in profit or loss, in which case the increase is recognized in profit or loss to the extent that it reduces the expense of the previous loss. Any decrease in the carrying amount resulting from the revaluation of such plants, facilities and operating equipment is recognized in profit or loss to the extent that it exceeds the revaluation surplus, if any.

Borrowing costs incurred in direct and general financing of constructions in progress for a period greater than 6 months are capitalized as part of the cost of such asset.

In addition to the purchase price and costs directly attributable to preparing an asset in terms of its physical location and condition for use as intended by our technicians, the cost also includes the estimated costs for the decommissioning and removal of the asset and for restoration of the site where it is located, if such obligation exists.

ii) Depreciation

Depreciation of plants, facilities and equipment in operation is calculated at the fair value or acquisition cost of the asset, as the case may be, using the straight-line method over the estimated useful lives of the assets, beginning the month after the assets are available for use. In the event of a subsequent sale or retirement of the revalued properties, the revaluation surplus attributable to the remaining property revaluation reserve is transferred directly to retained earnings.

Depreciation of plants, facilities and operating equipment is recognized in profit or loss. On the subsequent sale or retirement of a revalued property, the attributable revaluation surplus remaining in the asset revaluation reserve is transferred directly to retained earnings.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

The depreciation rates based on the useful lives of the assets, determined by the Company's technicians are as follows:

	Useful life (years)
Geothermal power plants	27 to 50
Steam power plants	34 to 75
Hydroelectric power plants	40 to 80
Internal combustion power plants	34 to 75
Turbo gas and combined cycle power plants	34 to 75
Nuclear power plants	40
Substations	39 to 75
Transmission lines	34 to 75
Networks	30 to 59

The Company periodically evaluates the useful lives, depreciation methods, and residual values of its plants, facilities and equipment. In the event of changes in the estimates used, the related effects are recognized prospectively.

When the plants, facilities and equipment items are comprised of various components, and their useful lives are different, the significant individual components are depreciated over their estimated useful lives. Maintenance and minor repair costs and expenses are recognized in profit or loss when they are incurred.

In fiscal year 2019, the Company conducted a fair value analysis of its assets. This test yielded an impairment charge, a reversal of previously recognized impairment, and an unrealized gain on revaluation of the plants, resulting in a net gain of $27,466,275, which was determined as of December 31, 2019.

In 2018, CFE did not recognize impairment losses on plants, facilities and operating equipment; however, it recognized the partial reversal of the impairment recognized in 2017 in the amount of $2,074,323, which was determined as of December 31,2018.

The carrying amount of plant, facilities and equipment is reviewed annually for indicators of impairment in the value of such assets. As of December 31, 2017, CFE recognized impairment losses of $28,681,250, which were reduced from the revaluation surplus.

iii. Property and assets for offices and general services.

Property and assets for offices and general services are depreciated at the following rates:

	Useful life (in years)
Buildings	20
Office furniture and equipment	10
Computer equipment	4
Transportation equipment	4
Other assets	10

Land is not depreciated.

An item of plant, facilities and equipment is derecognized upon disposal or when no future economic benefits are expected from its continuing use. The gain or loss on the sale or retirement of an item of property, plant and equipment is calculated as the difference between its net selling price and its net carrying amount and is recognized in the income statement.

iv) Subsequent expenditure

Subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill and brands, is recognized in profit or loss as incurred.

i) Intangibles and other assets

Intangible assets acquired separately are recognized at cost and CFE estimates the useful life of each intangible asset. Intangibles with an indefinite useful life are classified as intangible assets with indefinite useful lives; the Company mainly has rights of way with indefinite useful lives.

The Other assets line item is largely comprised of security deposits provided under real estate leases, as well as guarantees provided to third parties under agreements for goods and/or services provided.

j) Employee benefits

The Company provides various employee benefits to its employees that for purposes of the financial statements, are classified as direct employee benefits and pension benefits, seniority premiums and termination benefits.

<u>Short-term direct employee benefits</u>

Short-term employee benefits are expensed as the related service is provided. A liability is recognized for the amount expected to be paid if the Company has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

Direct employee benefits

Direct employee benefits are determined based on services provided and considering the current salaries of employees. The related liability is recorded as the benefits accrue. Direct employee benefits are mainly comprised of productivity incentives, vacation days, vacation premiums, seniority bonuses and awards granted to the Company's temporary, contingent and permanent staff.

Pension benefits and other benefits

The Company provides retirement pensions to its employees.

The Company has a defined benefit pension plan in place for employees who began working for the Company on or before August 18, 2008 and a defined contribution pension plan for employees who began working for the Company on or after August 19, 2008.

Obligations for contributions to defined contribution plans are expensed as the related service is provided. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available.

Additionally, there are defined contribution pension plans mandated by the Federal government to which the Company is required to make contributions on behalf of its employees. The Company's contributions to these defined contribution plans are calculated by applying the percentages indicated in the related regulations to the amounts of eligible wages and salaries. The contributions are remitted to the retirement fund administrators (AFORE) selected by each employee and to the Mexican Social Security Institute.

In accordance with the Federal Labor Law, the Company is required to pay a seniority premium and to make certain payments to personnel who leave the Company under certain circumstances.

The Company recognizes annually the cost of pensions, seniority premiums and termination benefits based on independent actuarial computations applying the projected unit credit method using assumptions net of inflation.

The cost of defined contribution pension plans are recognized in profit or loss as they are incurred.

The Company's net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in the current and prior periods, discounting that amount and deducting the fair value of any plan assets.

Defined benefit plans

The calculation of defined benefit obligations is performed annually by a qualified actuary using the projected unit credit method. When the calculation results in a potential asset for the Company, the recognized asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. To calculate the present value of economic benefits, consideration is given to any applicable minimum funding requirements.

Remeasurements of the net defined benefit liability, which comprise actuarial gains and losses, the return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest), are recognized immediately in OI. The Company determines the net interest expense (income) on the net defined benefit liability (asset) for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the net defined benefit liability (asset), taking into account any changes in the net defined benefit liability (asset) during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognized in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognized immediately in profit or loss. The Company recognizes gains and losses on the settlement of a defined benefit plan when the settlement occurs.

<u>Termination benefits</u>

Termination benefits are expensed at the earlier of when the Company can no longer withdraw the offer of those benefits and when the Company recognizes costs for a restructuring. If benefits are not expected to be settled wholly within 12 months of the reporting date, then they are discounted.

k) Income tax

Income tax expense comprises current and deferred tax.

a) Current tax

Current tax comprises the expected tax payable or receivable on the taxable income or loss for the year and any adjustment to the tax payable or receivable in respect of previous years. The amount of current tax payable or receivable is the best estimate of the tax amount expected to be paid or received that reflects uncertainty related to income taxes, if any

It is measured using tax rates enacted or substantively enacted at the reporting date

Current tax assets and liabilities are offset only if certain criteria are met.

b) Deferred tax

Deferred tax is recognized in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes.

Deferred tax assets are recognized for unused tax losses, unused tax credits and deductible temporary differences to the extent that it is probable that future taxable profits will be available against which they can be used. Future taxable profits are determined based on the reversal of relevant taxable temporary differences. If the amount of taxable temporary differences is insufficient to recognize a deferred tax asset in full, then future taxable profits, adjusted for reversals of existing temporary differences, are considered, based on the business plans for the individual subsidiaries of CFE. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized; such reductions are reversed when the probability of future taxable profits improves.

At the end of each reporting period, the Company reassesses its unrecognized deferred tax assets and records deferred tax assets when it is determined that the Company will have sufficient taxable earnings in the future against which to apply its tax losses.

Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, using tax rates enacted or substantively enacted at the reporting date, and reflects uncertainty related to income taxes, if any.

Deferred taxes are recognized in profit or loss except for the items related to Other Comprehensive Income (OCI).

l) Provisions and contingent liabilities

Provisions are recognized when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and there is uncertainty about the timing or amount, but a reliable estimate can be made of the amount of the obligation.

If the effect of the time value of money is material, provisions are based on the best estimate of the disbursements that would be required to settle the related obligation. Provisions are discounted using a pre-tax rate that reflects the current market conditions at the date of the statement of financial position and, when appropriate, the risks specific to the liability. When discounting is used, the increase in the provision is recognized as a finance cost.

Provisions for contingent liabilities are recognized only when it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation.

m) Revenue recognition

The Company's revenue recognition policies are as follows:

Sale of electricity - revenue is recognized when the electricity is delivered to the customers, which is considered to be the point in time at which the customer accepted the electricity and the related risks and rewards of ownership transferred. Other criteria applied for revenue recognition include that both the revenue and costs could be measured reliably, the recovery of the consideration was probable and there was no continuing involvement with the goods.

Sale of fuel: revenue is recognized at a point in time because this is when the fuels are delivered to the customers.

Transmission and distribution services - revenue is recognized over time, as the public electricity transmission services are provided.

Third-party contributions - revenue from the contributions received from customers to connect them to the national transmission and distribution network is recorded in the statement of comprehensive income at a point in time after the Company has completed the customer’s connection to the network. Customers have the option to choose either the Company or another company to supply them electricity. Revenues are presented as part of the Other income caption.

As a result of the legal separation of the Company into several legal entities and the changes in the laws that allow for the existence of other qualified suppliers besides the Company, as of January 1st, 2017 contributions received from customers and the State and Municipal Governments to provide electricity connection and supply services are recorded as income in the statement of comprehensive income after the Company has completed the customer's connection to the network, since customers now have the option to choose either the Company or another company to supply them electricity.

In view of the above, the deferred income liability was recognized as Third party contributions in the Other long-term liabilities item.

Revenue from subsidies: revenue from subsidies received from the Ministry of Finance and Public Credit is recognized at a point in time when the subsidies are received by the Company.

n) Leases

The Company has right-of-use assets in terms of IFRS 16 derived from its contracts with creditors for rentals of office space, furniture, reserved capacity gas pipelines for a fixed price, as well as contracts with independent power generation plants that provide power generation services to CFE.

At contract inception, the Company assesses whether the contract is, or contains, a lease. A contract is, or contains, a lease if it conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset, the Company uses the definition of a lease included in IFRS 16.

This standard will be applied retrospectively to contracts that were entered after January 1st, 2017.

i. As a lessee

At inception or reassessment of a contract that contains a lease component, the Company allocates the consideration in the contract to each lease on the basis of their relative stand-alone prices. However, for the leases of property the Company has elected not to separate non-lease components and account for the lease and non-lease components as a single lease component.

The Company recognizes a right-of-use asset and a lease liability at the commencement date of the lease. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Company by the end of the lease term or the cost of the right-of-use asset reflects that the Company will exercise a purchase option.

In that case the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Company's incremental borrowing rate. Generally, the Company uses its incremental borrowing rate as the discount rate

The Company determines its incremental borrowing rate by obtaining interest rates from various external financing sources and makes certain adjustments to reflect the terms of the lease and type of the asset leased.

Lease payments included in the measurement of the lease liability comprise the following:

– fixed payments, including in-substance fixed payments;

– variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;

– amounts expected to be payable under a residual value guarantee; and

– the exercise price under a purchase option that the Company is reasonably certain to exercise, lease payments in an optional renewal period if the Company is reasonably certain to exercise an extension option, and penalties for early termination of a lease unless the Company is reasonably certain not to terminate early.

The lease liability is measured at amortized cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Company's estimate of the amount expected to be payable under a residual value guarantee, if the Company changes its assessment of whether it will exercise a purchase, extension or termination option or if there is a revised in-substance fixed lease payment.

When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

The Company presents right-of-use assets that do not meet the definition of investment property in ‘property, plant and equipment’ and lease liabilities in ‘loans and borrowings’ in the statement of financial position.

Short-term leases and leases of low-value assets

The Company has elected not to recognize right-of-use assets and lease liabilities for leases of low-value assets and short-term leases, including IT equipment. The Company recognizes the lease payments associated with those leases as an expense on a straight-line basis over the lease term.

The Company recognizes lease payments received from operating leases as income on a linear basis during the lease term as part of 'other income'.

Generally, the accounting policies applicable to the Company as a lessor in the comparative period were not different from IFRS 16, except for the classification of the sublease entered into in the current reporting period, which resulted in a classification of a finance lease.

o) Fair value measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or, in its absence, the most advantageous market to which the Group has access at that date The fair value of a liability reflects its non-performance risk.

Several the Company's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities.

CFE has an established control framework with respect to the measurement of fair values. This includes a valuation team that has overall responsibility for overseeing all significant fair value measurements, including Level 3 fair values, and reports directly to the Chief Financial Officer

The valuation team regularly reviews significant unobservable inputs and valuation adjustments. If third party information, such as broker quotes or pricing services, is used to measure fair values, then the valuation team assesses the evidence obtained from the third parties to support the conclusion that these valuations meet the requirements of Standards, including the level in the fair value hierarchy in which the valuations should be classified.

4. Changes in accounting policies

The accounting policies applied in the preparation of the consolidated financial statements for the year ended December 31, 2019 are consistent with those used in the preparation of the Company's annual consolidated financial statements for the years ended December 31, 2018 and 2017.

A) IFRS 16 Leases

A lessee is required to recognize a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments. The standard includes two recognition exemptions for lessees – leases of “low-value” assets and short-term leases. Lessor accounting is substantially unchanged from today's accounting (i.e., lessors will continue to classify all leases as either operating or finance leases).

IFRS 16 replaces the current guidance on leases, including IAS 17 Leases; IFRIC 4 Determining whether an Arrangement contains a Lease; SIC-15 Operating Leases-Incentives; and SIC 27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

i. Transition

The Company initially applied IFRS 16 at January 1st, 2017, using the full retrospective method.

Certain amounts shown in the 2018 and 2017 consolidated financial statements have been reclassified for uniformity of presentation, as a result of the application of the standard. The effects of these adjustments were applied retrospectively to the financial information as of December 31, 2018 and 2017.

Annual impacts of the adoption of IFRS 16

The Company applied IFRS 16 "Leases" retrospectively at January 1st, 2017. The effects of the adoption of the new accounting pronouncement are presented as of January 1st, 2017 is as follows:

Impact on the Consolidated Statement of Financial Position:

Right-of-use asset	$	166,169,815
Right-of-use liability		(216,085,078)
Retained earnings (accumulated deficit)		49,915,263

IFRS 16 introduces significant changes to lessee accounting as it removes the distinction between operating and finance leases and requires a lessee to recognize a right-of-use asset and a lease liability at lease commencement for all leases except for short-term leases and leases of low value assets. In contrast to lessee accounting, lessor accounting requirements remain largely unchanged.

Impact of the new definition of a lease

The change in definition of a lease mainly relates to the concept of control. IFRS 16 determines whether a contract contains a lease on the basis of whether a customer has the right to control the use of an identified asset for a period of time in exchange for consideration. This is in contrast to the focus on “risks and rewards” in IAS 17 and IFRIC 4.

The Company applies the definition of a lease and related guidance set out in IFRS 16 to all lease contracts entered into or modified on or after the dates of the financial statements.

Impact on lessee accounting

(i) Former operating leases

IFRS 16 changes how the Company accounts for leases previously classified as operating leases under IAS 17, which were off-balance sheet.

Applying IFRS 16, for all leases (except as noted below), the Company:

Recognizes right-of-use assets and lease liabilities in the consolidated statement of financial position, initially measured at the present value of future lease payments.

Recognizes depreciation of right-of-use assets and interest on lease liabilities in the consolidated statement of profit or loss.

Under IFRS 16, right-of-use assets are tested for impairment in accordance with IAS 36.

For short-term leases (lease term of 12 months or less) and leases of low-value assets (such as personal computers, small items of office furniture and telephones, the Company has opted to recognize a lease expense on a straight-line basis as permitted by IFRS 16.

(ii) Former finance leases

The main difference between IFRS 16 and IAS 17 with respect to assets formerly held under a finance lease is the measurement of residual value guarantees provided by a lessee to a lessor. IFRS 16 requires that the Company recognizes as part of its lease liability only the amount expected to be payable under a residual value guarantee, rather than the maximum amount guaranteed as required by IAS 17. This change did not have a material effect on the Company's consolidated financial statements.

This standard introduces significant changes to the lessee accounting by removing the distinction between operating and finance leases and requiring the recognition of a right-of-use asset and a lease liability at the lease commencement for all leases, except for short-term leases and leases of low-value assets.

In contrast to lessee accounting, lessor accounting requirements remain largely unchanged.

Impact of the new definition of a lease

The change in definition of a lease mainly relates to the concept of control. IFRS 16 determines whether a contract contains a lease on the basis of whether a customer has the right to control the use of an identified asset for a period of time in exchange for consideration. This is in contrast to the focus on “risks and rewards” in IAS 17 and IFRIC 4.

The Company applies the definition of a lease and related guidance set out in IFRS 16 to all lease contracts entered into or modified on or after the dates of the financial statements.

Impact on lessee accounting

(i) Former operating leases

IFRS 16 changes how the Company accounts for leases previously classified as operating leases under IAS 17, which were off-balance sheet.

Applying IFRS 16, for all leases (except as noted below), the Company:

Recognizes right-of-use assets and lease liabilities in the consolidated statement of financial position, initially measured at the present value of future lease payments.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

Recognizes depreciation of right-of-use assets and interest on lease liabilities in the consolidated statement of profit or loss.

Under IFRS 16, right-of-use assets are tested for impairment in accordance with IAS 36.

For short-term leases (lease term of 12 months or less) and leases of low-value assets (such as personal computers, small items of office furniture and telephones, the Company has opted to recognize a lease expense on a straight-line basis as permitted by IFRS 16.

The cumulative effect of the adoption of new accounting pronouncements IFRS 15 and IFRS 9 at December 31, 2018 and 2017 is as follows:

	December 31, 2017 (as originally reported)	Effects of IFRS 16 prior years	Effects of IFRS 16 for the year	Reclassifications	Balance as at December 31, 2017 (restated)
Current assets	$ 176,948,416	$ -	$ -	$ -	176,948,416
Plants, facilities and equipment	1,252,938,487	-	-	(62,090,184)	1,190,848,303
Right-of-use asset	-	166,169,815	80,961,077	62,090,184	309,221,076
Deferred tax assets	76,867,662	-	(35,811)	-	76,831,851
Other asset accounts	61,261,116	-	-	-	61,261,116
Total assets	$ 1,568,015,681	$ 166,169,815	$ 80,925,266	$ -	1,815,110,762
Current liabilities					
Short-term debt	$ 56,619,730	$ -	$ -	$ (8,121,848)	48,497,882
Short-term lease liabilities	-	-	7,605,117	8,121,848	15,726,965
Other short-term liability accounts	113,103,366	-	-	-	113,103,366
Total current liabilities	169,723,096	-	7,605,117	-	177,328,213
Long-term debt	401,156,627	-		(114,103,818)	287,052,809
Long-term lease liabilities	-	216,085,078	73,878,649	114,103,818	404,067,545
Other long-term liability accounts	385,205,006	-	-	-	385,205,006
Total long-term liabilities	786,361,633	216,085,078	73,878,649	-	1,076,325,360
Total liabilities	$ 956,084,729	$ 216,085,078	$ 81,483,766	$ -	1,253,653,573
Other equity items	95,009,668	-	-	-	95,009,668
Retained earnings (accumulated deficit)	100,140,833	(49,915,263)	(475,567)	-	49,750,003
Other comprehensive income (loss) items	416,780,451	-	(82,933)	-	416,697,518
Total equity	611,930,952	(49,915,263)	(558,500)	-	561,457,189
Total liabilities and equity	$ 1,568,015,681	$ 166,169,815	$ 80,925,266	$ -	1,815,110,762

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

	December 31, 2017 (as originally reported)	Effects of IFRS 16 for the year	Balance as at December 31, 2017 (restated)
Revenue	$ 489,605,542	$ -	$ 489,605,542
Energy and other fuels	232,718,432	(16,597,688)	216,120,744
Depreciation	59,467,421	10,427,779	69,895,200
Other cost accounts	149,598,357	-	149,598,357
Total other costs	441,784,210	(6,169,909)	435,614,301
Operating income	$ **47,821,332**	$ 6,169,909	$ **53,991,241**
Finance expense	23,548,524	10,362,542	33,911,066
Foreign exchange gain	(10,572,863)	(3,752,877)	(14,325,740)
Net finance income	$ 12,975,661	$ 6,609,665	$ 19,585,326
Income tax	(73,338,703)	35,811	(73,302,892)
Net income (loss)	**108,184,374**	**(475,567)**	**107,708,807**
Other comprehensive income items	(30,471,885)	(82,933)	(30,554,818)
Comprehensive income (loss)	$ **77,712,489**	$ **(558,500)**	$ **77,153,989**

	December 31, 2018 (as originally reported)	Effects of IFRS 16 prior years	Effects of IFRS 16 for the year	Reclassifications	Balance as at December 31, 2018 (restated)
Current assets	$ 193,196,623	$ -	$ -	$ -	193,196,623
Plants, facilities and equipment	1,243,525,992	-	-	(56,935,734)	1,186,590,258
Right-of-use asset	-	247,130,892	42,733,944	56,935,734	346,800,570
Deferred tax assets	157,561,570	(35,811)	13,807,413		171,333,172
Other asset accounts	64,439,816				64,439,816
Total assets	$ 1,658,724,001	$ 247,095,081	$ 56,541,357	$ -	1,962,360,439

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

	December 31, 2018 (as originally reported)	Effects of IFRS 16 prior years	Effects of IFRS 16 for the year	Reclassifications	Balance as at December 31, 2018 (restated)
Current liabilities					
Short-term debt	$ 48,406,140	$ -	$ -	$ (8,576,870)	$ 39,829,270
Short-term lease liabilities	-	7,605,117	10,674,737	8,576,870	26,856,724
Other short-term liability accounts	116,668,358	-	-	-	116,668,358
Total current liabilities	165,074,498	7,605,117	10,674,737	-	183,354,352
Long-term debt	422,225,594	0	-	(107,429,880)	314,795,714
Long-term lease liabilities	-	289,963,727	32,195,665	107,429,880	429,589,272
Other long-term liability accounts	347,903,784	-	-	-	347,903,784
Total long-term liabilities	770,129,378	289,963,727	32,195,665	-	1,092,288,770
Total liabilities	$ 935,203,876	$ 297,568,844	$ 42,870,402	$ -	$ 1,275,643,122
Retained earnings (accumulated deficit)	144,807,764	(50,390,830)	13,708,348	-	108,125,282
Other comprehensive income (loss) items	466,206,051	(82,933)	(37,393)	-	466,085,725
Other equity items	95,009,668	-	-	-	95,009,668
Total equity	706,023,483	(50,473,763)	13,670,955	-	669,220,675
Non-controlling interest	17,496,642	-	-	-	17,496,642
Total liabilities and equity	$ 1,658,724,001	$ 247,095,081	$ 56,541,357	$ -	$ 1,962,360,439

	December 31, 2018 (as originally reported)	Effects of IFRS 16 for the year	Balance at December 31, 2018 (restated)
Revenue	$ 547,346,264	$ -	$ 547,346,264
Energy and other fuels	284,385,583	(24,741,358)	259,644,225
Depreciation	57,535,932	12,814,168	70,350,100
Other cost accounts	172,523,811	-	172,523,811
Total other costs	514,445,326	(11,927,190)	502,518,136
Operating income	$ **32,900,938**	11,927,190	**44,828,128**

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

		December 31, 2018 (as originally reported)	Effects of IFRS 16 for the year	Balance at December 31, 2018 (restated)
Finance expense		3,812,636	-	3,812,636
Foreign exchange (gain) loss		(1,598,453)	(607,488)	(2,205,941)
Interest expense		35,133,034	12,633,743	47,766,777
Net finance income	$	37,347,217	12,026,255	49,373,472
Income tax		(52,363,237)	(13,807,413)	(66,170,650)
Net income (loss)	$	**47,916,958**	**13,708,348**	**61,625,306**
Other comprehensive income items		49,425,600	(37,393)	49,388,207
Comprehensive income (loss)	$	**97,342,558**	**$ 13,670,955**	**$ 111,013,513**

5. Financial Instruments – Fair Values and Risk Management

Fair values

Set out below are the carrying amounts of financial instruments recognized at December 31, 2019, 2018 and 2017:

		2019		2018		2017
Financial assets						
Cash and cash equivalents (2)	$	89,339,037	$	78,483,263	$	67,237,901
Accounts receivable (2)		86,672,574		99,175,895		95,067,522
Loans to employees (2)		13,777,331		12,367,878		12,339,193
Derivative financial instruments (1)		4,064,335		17,783,141		16,084,937
Financial liabilities						
Short-term debt (2)	$	53,896,802	$	39,829,270	$	48,497,882
Long-term debt (2)		299,531,948		314,795,714		287,052,809
Short-term lease liability (1)		11,074,905		26,856,724		15,726,965
Long-term lease liability (1)		556,838,326		429,589,272		404,067,545
Suppliers and contractors (2)		30,808,697		60,196,912		59,849,154
Deposits from customers and contractors (2)	$	28,945,790	$	25,619,843	$	22,974,717

(1) Fair value

(2) Amortized cost

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

Objectives of financial risk management

The Company's Financial Officer's functions include, among others, implementing strategies, coordinating access to domestic and international financial markets, and monitoring and managing financial risks related to the Company's operations through internal and market risk reports that analyze the degree and magnitude of the Company's exposure to financial risks. These risks include market risk (including foreign exchange risk and interest rate risk), credit risk and liquidity risk.

To mitigate the effect of its debt related risks, the Company uses derivative financial instruments to hedge such risk.

The Treasury Department is bound by the Ministry of Finance and Public Credit cash management policies that hold that investments must be made in low-risk short-term instruments. Monthly status reports are issued to the Treasury Investment Committee.

Credit risk

Credit risk is the risk of financial loss to the Company if a counterparty to a financial instrument fails to meet its contractual obligations.

The Company is subject to credit risk mostly in respect of its financial instruments comprising cash and short-term investments, loans and accounts receivable, and derivative financial instruments. In order to mitigate the credit risk in its cash, short-term investments and derivative financial instruments, the Company conducts transactions only with counterparties that are financially solvent and that have a good reputation and high credit quality. The Company also obtains sufficient guarantees, when appropriate, to mitigate the risk of financial loss due to non-performance.

The carrying amounts of the Company's financial assets represent the maximum credit exposure.

For credit risk management purposes, the Company considers that the credit risk on loans and accounts receivable from consumers is limited. The Company determines the allowance for doubtful accounts based on the incurred loss model.

An aging analysis of the past due receivables, for which an allowance has not been deemed necessary as of December 31, 2019, 2018 and 2017, is as follows:

	2019	2018	2017
Less than 90 days	$ 3,109,708	$ 3,778,989	$ 2,431,134
From 90 to 180 days	3,370,571	3,498,198	2,350,281
More than 180 days	14,500,981	13,812,362	10,795,106
	$ 20,981,260	$ 21,089,549	$ 15,576,521

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

The Company's maximum exposure to credit risk for trade receivables by item as of December 31, 2019, 2018 and 2017, is as follows:

	2019	2018	2017
Cash count	$ 16,606,067	$ 16,283,615	$ 12,403,078
Bad debts	2,095,514	2,418,777	2,452,983
Agreement	2,043,146	2,129,269	3,233,455
Government	6,082,539	6,852,679	6,253,062
Total	$ 26,827,266	$ 27,684,340	$ 24,342,578

An analysis of the Company's exposure to credit risk from its trade receivables and contract assets is as follows:

	2019		2018		2017	
	Noncredit-impaired	Credit-impaired	Noncredit-impaired	Credit-impaired	Noncredit-impaired	Credit-impaired
Other customers:						
History of transactions with the Company	$ 45,148,968	$ 21,515,057	$ 47,269,908	$ 22,512,787	$ 48,628,069	$ 22,512,787
Total						
Allowance for credit losses	$ 5,740,902	$ 21,086,364	$ 5,691,092	$ 21,993,247	$ 723,061	$ 21,993,247

Comparative information under IAS 39

An analysis of the credit quality of the trade receivables that were neither past due nor impaired, and the aging of the trade receivables that were past due, but not impaired as of December 31, 2019, 2018 and 2017 is as follows:

	2019	2018	2017
Current, but not impaired	$ 35,461,566	$ 37,292,423	$ 41,844,177
Past due, but not impaired			
Past due between 1 and 30 days	$ 1,809,004	$ 2,276,899	$ 1,488,668
Past due between 31 and 60 days	$ 1,300,703	$ 1,502,090	$ 942,465
Past due between 61 and 90 days	$ 1,030,506	$ 1,172,461	$ 748,433
Past due between 91 and 120 days	$ 912,866	$ 927,051	$ 608,564
Past due between 121 and 150 days	$ 803,936	$ 749,160	$ 527,013
Past due between 151 and 180 days	$ 623,263	$ 649,526	$ 466,272
Past due between 181 and 210 days	$ 717,918	$ 549,533	$ 431,419
Past due between 211 and 240 days	$ 572,968	$ 500,011	$ 372,830
Past due between 241 and 270 days	$ 502,221	$ 467,930	$ 334,327
Past due between 271 and 300 days	$ 490,051	$ 431,567	$ 293,870
Past due between 301 and 330 days	$ 458,521	$ 360,649	$ 280,744
Past due between 331 and 360 days	$ 465,445	$ 390,608	$ 289,287
Total, trade receivables not impaired	**$ 45,148,968**	**$ 47,269,908**	**$ 48,628,069**

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

Trade receivables impaired as of December 31, 2017 amounted to a gross carrying amount of $20,732,129. Impairment loss as of December 31, 2017 is comprised of customer balances more then 330 days past due for cash count. For bad debts, regularization note receivables, and state and federal government consumer accounts more than 730 days past due, the impaired balance was fully reserved.

Liquidity risk

Liquidity risk is the risk that the Company will encounter difficulty in meeting obligations associated with its financial liabilities that are settled by delivering cash or another financial asset.

The financing obtained by the Company is mainly through contracted debt, the leasing of plants, facilities, equipment and PIDIREGAS. To manage liquidity risk, the Company periodically performs cash flow analyses and maintains open lines of credit with financial institutions and suppliers.

In addition, the Company's budget is controlled by the Federal Government; consequently, the net debt ceiling authorized on an annual basis by the Federal Congress based on the Company's budgeted revenues, cannot be exceeded.

The following table provides information about the contractual maturities of the Company's financial liabilities based on the payment terms: An analysis of the contractual maturities of the derivative financial instruments is included in Note 12:

As of December 31, 2019	Less than one year	More than 1 year and less than 3 years	More than 3 years and less than 5 years	More than 5 years	Total
Documented debt	$ 39,171,577	$ 24,962,181	$ 44,681,062	$ 107,982,189	$ 216,797,009
Interest payable on documented debt	12,559,195	18,535,377	16,046,256	49,584,844	96,725,672
PIDIREGAS debt	14,159,869	23,470,069	21,767,411	76,669,036	136,066,385
Interest payable on PIDIREGAS debt	8,234,010	13,881,007	10,880,563	32,779,177	65,774,757
Lease liabilities	11,074,904	8,682,410	21,774,620	526,381,297	567,913,231
Interest payable on lease liabilities	18,507,917	18,223,575	35,147,849	210,624,872	282,504,213
Suppliers and contractors	30,808,697	-	-	-	30,808,697
Other liabilities	28,682,716	-	-	-	28,682,716
Total	$ **163,198,885**	**107,754,619**	**150,297,761**	**1,004,021,415**	**1,428,272,680**

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

As of December 31, 2018		Less than one year		More than 1 year and less than 3 years		More than 3 years and less than 5 years		More than 5 years		Total
Documented debt	$	15,554,180	$	47,006,781	$	21,496,201	$	131,988,076	$	216,045,238
Interest payable on documented debt		12,751,923		22,239,932		17,887,246		56,627,971		109,507,072
PIDIREGAS debt		16,780,375		25,402,698		19,973,829		68,928,129		131,085,031
Interest payable on PIDIREGAS debt		7,979,683		12,824,805		9,391,087		30,219,922		60,415,497
Lease liabilities		26,847,724		14,711,981		12,743,649		402,142,642		456,445,996
Interest payable on lease liabilities		13,286,270		25,348,761		23,994,588		114,724,232		177,353,851
Suppliers and contractors		60,196,912		-		-		-		60,196,912
Other liabilities		18,007,260		-		-		-		18,007,260
Total	$	171,404,327		147,534,958		105,486,600		804,630,972		1,229,056,857

As of December 31, 2017,		Less than one year		More than 1 year and less than 3 years		More than 3 years and less than 5 years		More than 5 years		Total
Documented debt	$	25,918,516	$	29,320,404	$	20,473,272	$	131,209,737	$	206,921,929
Interest payable on documented debt		12,101,655		21,733,041		16,630,583		61,325,343		111,790,622
PIDIREGAS debt		21,145,588		26,125,588		20,171,431		59,752,703		127,195,310
Interest payable on PIDIREGAS debt		7,854,887		11,743,205		8,363,221		23,300,233		51,261,546
Lease liabilities		15,726,965		21,905,178		10,640,991		371,521,376		419,794,510
Interest payable on lease liabilities		11,443,704		21,989,153		20,740,765		101,774,697		155,948,319
Suppliers and contractors		59,849,154		-		-		-		59,849,154
Other liabilities		22,974,717				-		-		22,974,717
Total	$	**177,015,186**	$	**132,816,569**	$	**97,020,263**	$	**748,884,089**	$	**1,155,736,107**

Market risk

Due to its activities, the Company has exposure to foreign currency and interest rate risks.

Foreign currency exchange risk management

To fund its working capital requirements and public works financing, the Company contracts debt and carries out foreign currency-denominated transactions, consequently, it is exposed to exchange rate risk.

	Total debt as of December 31, 2019 (amounts in millions of pesos)	Total debt as of December 31, 2018 (amounts in millions of pesos)	Total debt as of December 31, 2017 (amounts in millions of pesos)
Local currency	162,662	154,334	169,449
Foreign currency	188,430	191,061	163,047

In accordance with its policies, the Company mostly contracts interest rate and foreign currency swaps and foreign currency forward contracts to mitigate its exposure to interest rate and foreign currency risks.

The carrying amounts of the Company's foreign currency denominated monetary assets and monetary liabilities at the end of the period are presented in Note 18.

Foreign currency sensitivity analysis

The Company is mainly exposed to exchange rate differences between the Mexican peso, the US dollar and the Japanese yen.

The Company's sensitivity analysis considers a 5% increase and decrease in the Mexican peso exchange rate against the other relevant foreign currencies. This 5% is the sensitivity rate used internally when the exchange risk is reported to key management personnel and represents Management's assessment of a reasonably possible change in exchange rates.

The sensitivity analysis only includes outstanding foreign currency denominated monetary items and adjusts their translation at the period end for a 5% change in foreign currency rates.

The sensitivity analysis includes foreign loans as well as loans from the foreign operations within the Company, where the loan is denominated in a currency other than the currency of the loaner or borrower. A positive figure indicates an increase in profit where the Mexican peso strengthens 5% against the relevant currency. If there is a 5% weakening of the Mexican peso against the relevant currency, there would be a comparable impact on profit, and the balances on the following page would be negative. The sensitivity analysis of the derivative financial instruments is described in Note 12.

As of December 31, 2019

	Documented	Pidiregas	Total
EUR	640	-	640
MXN	1,106,895	59,949	1,166,844
USD	7,827,009	3,078,287	10,905,296
CHF	1,634	-	1,634
JPY	2,365	-	2,365
Total	8,938,543	**3,138,236**	12,076,779

As of December 31, 2018

	Documented	Pidiregas	Total
EUR	1,323	-	1,323
MXN	1,088,341	97,156	1,185,497
USD	5,537,034	3,155,278	8,692,312
CHF	16,394	-	16,394
JPY	18,093	-	18,093
Total	**6,661,185**	**3,252,434**	**9,913,619**

As of December 31, 2017

	Documented	Pidiregas	Total
EUR	2,181	-	2,181
MXN	(12,044)	(7,577)	(19,621)
USD	6,509,112	3,434,535	9,943,647
CHF	40,864	-	40,864
JPY	29,285	-	29,285
Total	**6,569,398**	**3,426,958**	**9,996,356**

The sensitivity analysis was estimated based on the fair value of the loans denominated in foreign currency.

Management believes that the impact of the inherent exchange risk is reflected in the electricity rates in the long-term through inflation adjustments and the peso to dollar exchange rate.

Interest rate risk management

The Company is exposed to interest rate risks for loans borrowed at variable interest rates. The Company manages this risk by maintaining an appropriate mix of fixed and variable rate loans and by contracting derivative financial instruments designated as interest rate hedges.

	Total debt as of December 31, 2019 (amounts in millions of pesos)	Total debt as of December 31, 2018 (amounts in millions of pesos)	Total debt as of December 31, 2017 (amounts in millions of pesos)
Fixed rate	243,181	242,971	169,449
Variable rate	107,911	102,423	163,047

Interest rate sensitivity analysis

The sensitivity analyses have been determined based on the exposure to interest rates for derivative and non-derivative financial instruments at the end of the reporting period.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

For floating-rate liabilities, the analysis is prepared assuming that the amount of the liability outstanding at the end of the reporting period was outstanding for the whole year. When reporting interest rate risk internally to key management personnel, a 0.50-point increase or decrease is used for the Mexican Weighted Interbank Interest Rate (EIIR or TIIE, Spanish acronym) and a 0.01-point increase or decrease for the LIBOR. These changes represent Management's assessment of reasonably possible change in interest rates.

2019	**Documented**	**Pidiregas**	**Total**
Fixed rate	135,541,656	60,505,621	196,047,277
Variable rate	465,285	-	465,285
	136,006,941	60,505,621	196,512,562

2018	**Documented**	**Pidiregas**	**Total**
Fixed rate	54,246,845	20,982,217	75,229,062
Variable rate	6,905,058	9,814,947	16,720,005
	61,151,903	30,797,164	91,949,067

2017	**Documented**	**Pidiregas**	**Total**
Fixed rate	92,505.411	29,479,408	121,984,819
Variable rate	5,051,063	19,077,222	24,128,285
	97,556,474	48,556,630	146,113,104

The sensitivity analysis of the debt without considering the derivative financial instruments was estimated based on the fair value of the loans.

The sensitivity analysis of the derivative financial instruments is described in Note 12.

Therefore, the hierarchy level of the Company’s Mark-to-Market for derivative financial instruments as of December 31, 2019 is level 2 due to the following:

a) Inputs are other than quoted prices included within Level 1 that are observable, either directly or indirectly.
b) Quoted prices for similar assets or liabilities in active markets.
c) Inputs other than quoted prices that are observable for the assets or liabilities.

Fair value of financial instruments

Measurement of fair values

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or, in its absence, the most advantageous market to which the Group has access at that date. The fair value of a liability reflects its non-performance risk.

When one is available, the Company measures the fair value of an instrument using the quoted price in an active market for that instrument. A market is regarded as 'active' if transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis.

If there is no quoted price in an active market, then the Company uses valuation techniques that maximize the use of relevant observable inputs and minimize the use of unobservable inputs. The chosen valuation technique incorporates all of the factors that market participants would take into account in pricing a transaction.

If an asset or a liability measured at fair value has a bid price and an ask price, then the Company measures assets and long positions at a bid price and liabilities and short positions at an ask price.

The best evidence of the fair value of a financial instrument on initial recognition is normally the transaction price – i.e. the fair value of the consideration given or received. If the Company determines that the fair value on initial recognition differs from the transaction price and the fair value is evidenced neither by a quoted price in an active market for an identical asset or liability nor based on a valuation technique for which any unobservable inputs are judged to be insignificant in relation to the measurement, then the financial instrument is initially measured at fair value, adjusted to defer the difference between the fair value on initial recognition and the transaction price.

Subsequently, that difference is recognized in profit or loss on an appropriate basis over the life of the instrument but no later than when the valuation is wholly supported by observable market data or the transaction is closed out.

Fair value of financial instruments recognized at amortized cost

The Company considers that the carrying amount of the financial assets and liabilities recognized at amortized cost in the financial statements approximates fair value, including those on the following page:

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

Valuation techniques and assumptions used in determining fair value

	2019		2018		2017	
	Carrying Amount	**Fair Value**	**Carrying Amount**	**Fair value**	**Carrying Amount**	**Fair Value**
Cash and cash equivalents	$ 89,339,037	$ 89,339,037	$ 78,483,263	$ 78,483,263	$ 67,237,901	$ 67,237,901
Accounts receivable	86,672,574	86,672,574	99,175,895	99,175,895	95,067,522	95,067,522
Loans to employees	$ 13,777,331	$ 13,777,331	$ 12,367,878	$ 12,367,878	12,339,193	12,339,193
Suppliers and contractors	37,808,897	37,808,897	60,196,912	60,196,912	59,849,154	59,849,154
Lease liabilities	567,913,231	567,913,231	456,445,996	456,445,996	419,794,510	419,794,510
Documented debt	216,797,009	240,066,531	216,045,238	270,631,391	206,921,929	223,791,475
PIDIREGAS debt	$ 136,066,385	189,227,258	$ 131,085,031	108,424,484	$ 127,195,310	132,577,493

The fair value of the Company's financial assets and liabilities is determined as follows:

- The fair values of financial assets and financial liabilities with standard terms and conditions that are traded on active liquid markets are determined by references to quoted market prices.
- The fair value of other financial assets and liabilities (excluding derivative financial instruments) is determined in accordance with generally accepted pricing models, which are based on an analysis of discounted cash flows using current transaction prices observable in active markets and quoted prices for similar instruments.
- In conformity with the terms of the ISDA (International Swaps and Derivatives Association) contracts that were entered into, the counterparties or banking institutions are the appraisers, and they calculate and send the Mark-to-Market (which is the monetary valuation of breaking agreed-upon transaction at any given time) on a monthly basis. CFE monitors this value and if there is any doubt or abnormal variance in the market value, CFE requests that the counterparty provide a new valuation.

Valuations at fair value recognized in the statement of financial position

The following table provides an analysis of the financial instruments that are measured subsequent to initial recognition at fair value, except for the financial instruments whose carrying amount is reasonably equivalent to their fair value, grouped into Levels 1 to 3, based on the degree to which the fair value is observable:

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

		Level 1	
	2019	**2018**	**2017**
Available-for-sale financial assets			
Temporary investments	$ 21,280,686	$ 14,666,617	$ 25,232,468

Fair value measurement as of December 31, 2019

		Level 1	Level 2	Level 3	Total
Assets					
Plan assets	$	-	210,818,107	-	210,818,107
Derivative financial instruments		-	4,064,335	-	4,064,335
Total			214,882,442		214,882,442
Liabilities					
Debt		178,982,740	-	112,152,544	291,135,284
Total	$	178,982,740	-	112,152,544	291,135,284

Fair value measurement as of December 31, 2018

		Level 1	Level 2	Level 3	Total
Assets					
Plan assets	$	-	195,389,375	-	195,389,375
Derivative financial instruments		-	17,783,141	-	17,783,141
Total		-	213,172,516		213,172,516
Liabilities					
Debt		177,457,151	-	153,496,535	330,953,686
Total	$	177,457,151	-	153,496,535	330,953,686

Fair value measurement as of December 31, 2017

		Level 1	Level 2	Level 3	Total
Assets					
Plan assets	$	-	167,467,661	-	167,467,661
Derivative financial instruments		-	16,084,937	-	16,084,937
Total		-	183,552,598	-	183,552,598
Liabilities					
Debt		196,023,229	-	160,345,739	356,368,968
Total	$	196,023,229	-	160,345,739	356,368,968

An analysis of the fair value of the derivative financial assets grouped into level 2, based on the degree to which the inputs to estimate their fair value are observable, is included in Note 10.

The levels referred to above are considered as follows:

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

- Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities. For the fair values of the Documented Debt, the observed changes are obtained from the Company's price provider, which as at December 31, furnishes the dirty price valuations reflected in the stock exchange certificates listed on the Mexican Stock Exchange.

- Level 2 fair value measurements are those derived from inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).

- Level 3 fair value measurements are those derived from unobservable inputs for the asset or liability, for the fair values of the Documented Debt and Pidiregas, the reasonably possible changes at the Balance Sheet date are determined by measuring the present value of the maturities in the source currency of the lines of credit discounted using CFE's yield curve. For this purpose, the Company's price provider furnishes the curves and risk factors related to the interest rates, exchange rates and inflation to which the debt is exposed.

Sensitivity analyses

To test the fair values of CFE's debt, the reasonably possible changes at the balance sheet date in one of the significant unobservable inputs would have the following effects if all other input remained constant.

	+ 5%	**- 5%**
Expected cash flow change of 5% in exchange rates in original currency	8,796	(8,796)
Expected cash flow change of 5% in interest rate	196	(196)

6. Cash and cash equivalents

An analysis of Cash and cash equivalents as of December 31, 2019, 2018 and 2017 is as follows:

		2019		**2018**		**2017**
Cash on hand and cash in banks	$	68,049,530	$	63,807,825	$	41,996,612
Short-term investments		21,280,686		14,666,617		25,232,468
Stock certificates		8,821		8,821		8,821
Total	$	**89,339,037**	$	**78,483,263**	$	**67,237,901**

7. Accounts receivable, net

An analysis of the accounts receivable affected by the impact of the adoption of IFRS 9 and IFRS 15 as of December 31, 2019, 2018 and 2017 is as follows:

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

		2019		2018		2017
Financial instruments						
Public consumers (*)	$	52,546,042	$	57,453,309	$	60,335,248
Government agency consumers (*)		24,118,163		22,060,633		20,887,093
		76,664,205		79,513,942		81,222,341
Impairment of receivables		-27,328,830		-28,446,893		-25,049,197
Other accounts receivable (**)		28,690,189		37,205,453		33,512,184
Total financial instruments		78,025,564	$	88,272,502	$	89,685,328
Total non-financial instruments - Value added tax		8,647,010		10,903,393		5,382,194
Total accounts receivable	$	**86,672,574**	$	**99,175,895**	$	**95,067,522**

(*) Includes estimates of revenue for electricity supply services that are in the process of being billed.
(**) Includes assets mainly from trusts and other debtors.

An analysis of the impairment of receivables as of December 31, 2019, 2018 and 2017 is as follows:

		2019		2018		2017
Opening balance	$	(28,446,893)	$	(25,049,197)	$	(26,557,269)
Increase		(361,980)		(5,149,559)		(5,229,270)
IFRS 9 adjustment		-		-		4,559,551
Adjusted increase		(361,980)		(5,149,559)		(669,719)
Charges		1,480,043		1,751,863		2,177,791
Ending balance	$	**(27,328,830)**	$	**(28,446,893)**	$	**(25,049,197)**

8. Inventory of operating materials

An analysis of inventory of operating materials as of December 31, 2019, 2018 and 2017 is as follows:

		2019		2018		2017
Spare parts and equipment	$	2,797,498	$	1,974,821	$	2,570,001
Fuel and lubricants		19,140,583		13,607,510		11,481,771
Nuclear fuel		3,969,405		4,160,798		3,994,473
		25,907,486		19,743,129		18,046,245
Allowance for obsolescence		(4,373,549)		(4,205,664)		(3,403,252)
Total	$	**21,533,937**	$	**15,537,465**	$	**14,642,993**

The Company recognizes in costs the spare parts and fuels used for its day-to-day operations.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

9. Plants, facilities and equipment, net

An analysis of Plants, facilities and equipment, net as of December 31, 2019, 2018 and 2017 is as follows:

	Plants, facilities and equipment, net							
	December 31, 2018	**Additions**	**Retirement s**	**Depreciation for the period**	**Revaluation**	**Impairment**	**Capitalization**	**December 31, 2019**
Plants, facilities and equipment in operation	$ 2,012,933,547	$ 48,858,544	$ -8,968,366	$ -	$ 84,480,718	$	$ 8,792,775	$ 2,146,097,218
Capitalized spare parts	7,306,913	144,853	-	-	-	-	-	7,451,766
Construction in progress	32,189,380	-	-	-	-	-	-6,058,798	26,130,582
Materials for construction	14,044,721	-	-	-	-	-	-2,733,977	11,310,744
Subtotal	2,066,474,561	49,003,397	-8,968,366	-	84,480,718	-	-	2,190,990,310
Accumulated depreciation	-853,277,053	-	2,647,252	-45,435,173	-	-		-896,064,974
Impairment	-26,607,250	-	-	-	-	-57,014,443		-83,621,693
Total	$ **1,186,590,258**	$ **49,003,397**	$ **-6,321,114**	$ **-45,435,173**	$ **84,480,718**	$ **-57,014,443**	$ **-**	$ **1,211,303,643**

	December 31, 2017	**Additions**	**Retirements**	**Depreciation for the period**	**Reversal of asset impairment**	**Reclassification of PEEs**	**December 31, 2018**
Plants, facilities and equipment	$ 1,990,250,148	$ 31,335,858	$ (9,596,057)	$	$ 943,598	$	2,012,933,547
Capitalized spare parts	7,233,445	73,468					7,306,913
Construction in progress	19,907,935	12,281,445					32,189,380
Materials for construction	11,621,276	2,423,445					14,044,721
Subtotal	2,029,012,804	46,114,216	(9,596,057)	-	943,598	-	2,066,474,561
Accumulated depreciation	-809,483,251		8,587,680	(57,535,932)		5,154,450	(853,277,053)
Impairment	-28,681,250				2,074,000		(26,607,250)
Total	$ **1,190,848,303**	$ **46,114,216**	$ **(1,008,377)**	$ **(57,535,932)**	$ **3,017,598**	$ **5,154,450**	**1,186,590,258**

		Plants, facilities and equipment, net					
	December 31, 2016	**Additions**	**Retirements**	**Depreciation for the period**	**Impairment**	**Reclassification**	**December 31, 2017**
Plants, facilities and equipment in operation	$2,040,715,940	$ 66,682,159	$ (19,676,856)	$ -	$ -	(97,471,095)	$ 1,990,250,148
Capitalized spare parts	6,367,290	866,157	-	-	-	-	7,233,447
Construction in progress	18,433,272	1,474,663	-	-	-	-	19,907,935
Materials for construction	10,856,713	764,561	-	-	-	-	11,621,274
Subtotal	2,076,373,215	69,787,540	(19,676,856)	-	-	(97,471,095)	2,029,012,804
Accumulated depreciation	(789,200,941)	-	-	(55,663,221)	-	35,380,911	(809,483,251)
Impairment	-	-	-	-	(28,681,250)	-	(28,681,250)
Total	$**1,287,172,274**	$ **69,787,540**	$ **(19,676,856)**	$ **(55,663,221)**	$ **(28,681,250)**	**(62,090,184)**	$ **1,190,848,303**

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

As of December 31, 2019, 2018 and 2017, the results of the analysis of the fair value of assets are shown below:

		December 2019	December 2018	December 2017
Revaluation of property, plant and equipment	$	73,788,098	943,598	
Impairment of property, plant and equipment		(57,014,443)		(28,681,250)
Reversal of impairment of property, plant and equipment		10,692,620	2,074,000	
Total	$	**27,466,275**	**3,017,598**	**(28,681,250)**

The main effects by type of technology are shown in the following table.

Technology	No. of Power Stations	Impairment	Revaluation	Reversal
Carboelectric	3	12,582,203	-	-
Combined cycle	20	27,249,885	3,437,269	146,300
Internal combustion	5	801,973	1,034,919	
Wind	2	564,442	-	
Photovoltaic	2	213,540	-	
Geothermoelectric	4	4,714,256	383,992	
Hydroelectric	61	2,940,321	66,237,478	9,920,255
Nuclear power	1	-	996,545	
Thermoelectric	20	5,013,490	528,168	4,015
Turbo-gas	40	2,934,333	1,169,727	622,050
Total	**158**	**57,014,443**	**73,788,098**	**10,692,620**

In fiscal year 2019, the Company conducted a fair value analysis of its assets. This test yielded an impairment charge, a reversal of previously recognized impairment, and an unrealized gain on revaluation of the plants, resulting in a net gain of $27,466,275, which was determined as of December 31, 2019.

In 2018, CFE did not recognize impairment losses on plants, facilities and operating equipment; however, it recognized the partial reversal of the impairment recognized in 2017 in the amount of $2,074,323, which was determined as of December 31, 2018.

In addition to the reversal, the Company also recorded assets retired due to impairment totaling $943,598 as of December 31, 2018.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

For the asset valuation study, the Company considered the same aggregation to identify the cash-generating unit, both for the recoverable amount estimated in past valuations and in the current valuation for recognition in 2019.

The recoverable amount of the cash generating units was considered the fair value of the asset less costs of disposal.

Based on IFRS 13, the fair value measurement of the assets is classified as a Level 3 input within the fair value hierarchy.

The events and circumstances that led to the impairment charge, the unrealized gain on revaluation and the reversal of impairment relate to current and future conditions of the Mexican Electricity Market and changes in power generation technology.

It is worth noting that over the last three years Mexico's power generation market has evolved, with major changes including the startup of a new gas pipeline network that has significantly expanded the availability of natural gas at the regional level and the introduction of renewable energy sources, as well as the general improvements that this network is undergoing day by day.

As of December 31, 2019, and 2017, CFE recognized impairment losses of $57,014,443 and $28,681,250, which were reduced from the revaluation surplus.

The Company identified each generation plant as a cash generating unit (CGU).

As of December 31, 2019, the useful lives of the plants with modern technology are as follows:

Power Stations	useful life
Combined cycle (with natural gas), thermoelectric plants, turbo-gas and internal combustion	30 years
Carboelectric	40 years
Geothermal	30 years
Nuclear power	60 years
Hydroelectric	80 years
Wind and solar	25 years

The projections used to measure the fair value of the power plants are based on an income approach applied using the so-called Plexos model to run a simulation of the Mexican electricity market via the incorporation of multiple algorithms to optimize the country's power generation system, which takes into account the availability fuel and hydraulic resources in a variety of time frames, thus generating forecasts of power production levels, costs and investments over a given time horizon.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

The income approach is based on the projection of the structure of free cash flow that permits the reproduction of the free cash flow derived from the operation of the business and the behavior of the various aspects that comprise it, following the conditions set out in all the proposed scenarios and considering as well their respective assumptions.

The estimate was determined using a nominal pre-tax discount rate: 8.36%, 7.92% and 7.30%, which were applied based on the size of the plants, as determined based on their Revalued Book Value 2019.

The key assumptions considered in the calculation of fair value minus disposal costs were revenue from power generation and capacity, operating costs, general and administrative expenses, operational safety maintenance expenses, the discount rate and the analysis horizon.

Construction in progress - the construction in progress balances as of December 31, 2019, 2018 and 2017 are as follows:

Plant:	**2019**	**2018**	**2017**
Steam power plants	5,380	24,587	326
Hydroelectric power plants	1,183,167	1,180,110	1,248,917
Nuclear power plants	248,696	589,870	1,316,029
Turbo gas and combined cycle power plants	11,258,752	11,171,320	416,051
Geothermal power plants	176,395	870,738	1,220,462
Internal combustion power plants	-	682	682
Transmission lines, networks and substations	11,650,574	16,698,221	14,594,645
Offices and general facilities	1,607,618	1,653,852	1,110,823
Total	**26,130,582**	**32,189,380**	**19,907,935**

Fair value measurement

i. Fair value hierarchy

The fair value of plants, facilities and equipment in operation was determined by independent external appraisers with a recognized professional capacity and experience in terms of the property, plant and equipment that underwent the appraisal. The independent appraisers provided the fair value of the plants, facilities and equipment as of December 31, 2017 and 2019.

ii. Valuation technique and relevant unobservable inputs

The following table shows the valuation technique used to measure the fair value of investment properties, as well as the significant unobservable inputs used.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

Valuation technique	Significant unobservable inputs	Interrelationship between the key unobservable inputs and the measurement of fair value
Discounted cash flows: The valuation model considers the present value of the net cash flows expected to be generated by plants, facilities and equipment, considering the expected income growth rate. Net expected cash flows are discounted using risk-adjusted discount rates.	Generation Useful life of the assets (30-60 years) Discount rate 7.67%-8.68% Transmission Useful life of the assets (30 years) Discount rate 7.67% Distribution Useful life of the assets (30 years) Discount rate 7.67%	The estimated fair value would increase (decrease) if: - Income growth was higher (lower) - The useful life was higher (lower) - The risk-adjusted discount rate was lower (higher)

As mentioned in Note 2d) and Note 3i), CFE conducts impairment tests on the value of its long-term assets if circumstances indicate that the assets might be impaired.

The impairment analysis for long-lived assets requires the Company to estimate the recoverable amount of its assets, which is the greater of its fair value (minus any disposal costs) and its value in use.

As of December 31, 2017, the Company recognized an impairment of $28,681,250 since the value in use of some generation plants did not recover the carrying amount of the investment. In 2018, the Company detected that indicators of impairment were not present at some of these plants, which resulted in a partial reversal of $3,017,598.

10. Right-of-use asset

The Company adopted IFRS 16 Leases using the full retrospective method for the periods presented in the annual financial statements. Consequently, the cumulative effect of adopting IFRS 16 was recognized as an adjustment to the opening balance of retained earnings as of January 1st, 2017.

The net balances of Right-of-use assets as of December 31, 2019, 2018 and 2017 are as follows.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

	2018	Additions	Effect from translation	Depreciation for the year	2019
Property	$ 546,838	$ 62,571	$ -	$ -	$ 609,409
Infrastructure	112,010,062	23,157,121	-	-	135,167,183
Gas pipelines	315,882,435	128,471,504	(3,797,328)	-	440,556,611
Subtotal	428,439,335	151,691,196	(3,797,328)	-	576,333,203
Property	(295,289)	-	-	(136,286)	(431,575)
Infrastructure	(43,673,049)	-	-	(6,189,152)	(49,862,201)
Gas pipelines	(37,670,427)	-	-	(13,992,579)	(51,663,006)
Total depreciation	(81,638,765)	-	-	(20,318,017)	(101,956,782)
	$ 346,800,570	**$ 151,691,196**	**$ (3,797,328)**	**$ (20,318,017)**	**$ 474,376,421**

	2017	Additions	Effect from translation	Depreciation for the year	2018
Real estate	$ 319,999	$ 226,839	$ -	$ -	$ 546,838
Infrastructure	112,010,062		-	-	112,010,062
Gas pipelines	260,561,217	55,674,583	(353,365)	-	315,882,435
Subtotal	372,891,278	55,901,422	(353,365)	-	428,439,335
Property	(159,962)	-	-	(135,327)	(295,289)
Infrastructure	(37,975,978)	-	-	(5,697,071)	(43,673,049)
Gas pipelines	(25,534,262)	-	-	(12,136,165)	(37,670,427)
Total depreciation	(63,670,202)	-	-	(17,968,563)	(81,638,765)
	$ 309,221,076	**$ 55,901,422**	**$ (353,365)**	**$ (17,968,563)**	**$ 346,800,570**

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

	2016	Additions	Effect from translation	Depreciation for the year	2017
Real estate	$ 294,643	$ 25,356	$ -	$ -	$ 319,999
Infrastructure	102,616,410	9,393,652	-	-	112,010,062
Gas pipelines	178,500,090	85,521,375	(3,460,248)	-	260,561,217
Subtotal	281,411,143	94,940,383	(3,460,248)	-	372,891,278
Property	(66,078)	-	-	(93,884)	(159,962)
Infrastructure	(32,310,219)	-	-	(5,665,759)	(37,975,978)
Gas pipelines	(15,711,675)	-	-	(9,822,587)	(25,534,262)
Total depreciation	(48,087,972)	-	-	(15,582,230)	(63,670,202)
	$ 233,323,171	**$ 94,940,383**	**$ (3,460,248)**	**$ (15,582,230)**	**$ 309,221,076**

The reconciliation of lease rights payable is as follows:

	December 2019	December 2018	December 2017
Closing balance	$ 456,445,996	$ 419,794,510	$ 351,914,789
Additions	151,674,080	51,450,114	93,664,635
Interest	23,889,828	22,114,211	17,942,019
Payments	(40,455,722)	(34,928,753)	(30,257,183)
Effect from translation	(4,032,854)	(315,972)	(3,377,314)
Exchange difference	(19,608,097)	(1,668,114)	(10,092,436)
Total liabilities	**$ 567,913,231**	**$ 456,445,996**	**$ 419,794,510**

The Company has entered into leasing contracts for the rental of real estate, vehicles and infrastructure. These leases shall commence over the course of 2020. The lease agreements will require CFE to recognize lease assets and liabilities in accordance with IFRS 16.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

11. Intangibles and other assets

An analysis of intangibles and other assets as of December 31, 2019, 2018 and 2017 is as follows:

		2019		2018		2017
Rights of way (1)	$	29,394,733	$	30,444,834	$	29,979,671
Deposits and advances		9,244,132		3,843,963		2,857,315
Total	$	**38,638,865**	$	**34,288,797**	$	**32,836,986**

As of December 31, 2019, 2018 and 2017, the Company has right-of-way assets, which represents a legal right-of-way for the Company to access and inspect transmission lines by air or underground in order to verify the continued transmission of electricity over the power lines. An analysis of these right-of-way assets is shown below:

Right of way

	Opening balance	Increase	Charges and others	Ending balance
2019	30,444,834	193,882	(1,243,983)	29,394,733
2018	29,979,671	584,632	(119,469)	30,444,834
2017	27,815,351	3,134,533	(970,213)	29,979,671

(1) Includes rights of way in the amount of $24,064,610 that are part of the assets contributed by the Federal Government to the Company through INDAABIN.

Intangible assets with indefinite useful lives mainly include rights of way. These assets are considered to have indefinite useful lives due to the fact that they are subject to no legal, regulatory or contractual restrictions that would limit how long they may be used. The assets are tested annually for impairment whenever there is evidence of impairment.

The Company conducted a fair value analysis of the long-lived assets of CFE Transmission. This testing was performed using a financial model that reproduces and simulates the cash flows generated on the operation of the assets. In order for the financial model to be able to simulate the operation of the business that is being tested, information must be fed into the free cash flow using financial projections and an analysis horizon, surrender value and discount rate must be determined for the impairment test December 31, 2019. As a result of this impairment test, no impairment was determined for the year.

The description of the long-term asset was formulated based information provided by CFE Transmisión, with the National Electric System Development Program 2019 - 2033 (PRODESEN 2019 - 2033).

12. Financial instruments

a. Accounting classifications and fair values

CFE is exposed to interest rate and foreign currency translation risks which it tries to mitigate through a hedging program that includes using derivative financial instruments. The Company mainly uses foreign exchange “Cross Currency Swaps” and “Forwards” to mitigate its foreign currency risk. To reduce its interest rate risk exposure, the Company uses interest rate swaps.
Also, for the years ended December 31, 2019, 2018 and 2017, the derivative financial instruments have been designated as and qualify mainly as cash flow hedges since they are referenced to contracted debt. The effective portion of gains or losses on cash flow derivatives is recognized in equity under the concept of "Effects on the fair value of derivatives", and the ineffective portion is charged to profit or loss of the period.

The fair value of the Company's financial instrument position as of December 31, 2019 amounted to $4,064,335. As of December 31, 2018, and 2017 it amounted to was $17,783,141 and $16,084,937, respectively.

Derivative Financial Instruments Held for Trading

As of December 31, 2019, 2018 and 2017, CFE had derivatives designated as held for trading whose fair value represented a liability of $382,435 as of December 31, 2019, an asset of $24,963 as of December 31, 2018, and a liability of $438,115 as of December 31, 2017.

This transaction consists of a series of currency forwards that allow the Company to lock in a JPY/USD exchange rate of 54.0157 JPY per USD over the established term of the transaction. As part of this transaction, CFE pays annual interest in U.S. dollars at a rate of 8.42%. These instruments have not been designated as hedges as required by the financial reporting standard, consequently, the valuation effect of these instruments is recognized in financial cost; a gain (loss) in said value offsets a loss (gain) in the underlying liability. In addition to the series of forwards, the derivative instrument includes two options: a long European call option through which CFE has the right to purchase Japanese yens upon maturity in the spot market in case the yen/dollar exchange rate is quoted below 118.75 yens per dollar, and a short European call option through which CFE is required to sell dollars at the yen/dollar exchange rate of 27.80, if the prevailing exchange rate at the settlement date exceeds this level.

On September 20, 2019, the Company refinanced a number of lines of credit with BBVA Bancomer for up to $ 8.811 billion pesos, including line of credit No. 1200001251, which was refinanced with a 7-year term maturing on September 18, 2026. For this reason, the hedge that CFE acquired through an interest rate swap contracted with the banks Credit Agricole, CitiBanamex, Santander and HSBC were reclassified as held for trading and the effects of the revaluation to market value of the hedges were recognized in profit or loss.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

The Company suspends cash flow hedge accounting when the derivative expires, is not effective enough to offset the changes in the fair value or cash flows of the hedged item, or when the Company decides to cancel the hedging designation. The gains or losses recognized in Other comprehensive income and accumulated in Equity, remain in Equity and are recognized when the forecast transaction is ultimately recognized in profit or loss.

If CFE decides to cancel this economic hedge (currency forwards on the yen/dollar exchange rate), it would give rise to an estimated extraordinary loss as of December 31, 2019, 2018 and 2017 as follows:

Instrument	Underlying	Maturity	31/12/2019	31/12/2018	01/01/2018
FWD JPY/USD	Exchange rate and interest rate	2036	(383,356)	24,963	(438,115)
IRS	Interest rate	2020	921		
		Total	**(382,435)**	**24,963**	**(438,115)**

Hedging instruments

As of December 31, 2019, 2018 and 2017, CFE maintains its hedging derivative position on exchange rates and interest rates, as shown below:

Instrument	Underlying	Type of hedge	Maturity	Primary position (Lines/Bonds)	Hedge Ratio	Fair value 2019	Fair value 2018	Fair value 2017
CCS	Exchange rate and interest rate	Cash flow	2021	1100000074 to 76	100%	285,635	237,481	339,264
CCS	Exchange rate and interest rate	Cash flow	2022	1100000077 to 79	100%	46,273	71,531	93,469
CCS	Exchange rate and interest rate	Cash flow	2023	1100000080	100%	218,468	1,815,259	3,971,843
CCS	Exchange rate and interest rate	Cash flow	2024	1100002956	100%	112,010	3,835,201	5,081,946
CCS	Exchange rate and interest rate	Cash flow	2027	1100003606	100%	378,283	2,585,145	2,589,860
CCS	Exchange rate and interest rate	Cash flow	2032	1200002801	100%	(69,692)	387,053	(427,998)
CCS	Exchange rate and interest rate	Cash flow	2036	1200000551 Pidiregas Line	100%	2,428,905	4,718,366	4,763,554
CCS	Exchange rate and interest rate	Cash flow	2042	Bond 2042	55.3%	138,159	1,015,880	-
CCS	Exchange rate and interest rate	Cash flow	2047	Formosa 1 Bond	100%	(620,163)	1,210,485	-
CCS	Exchange rate and interest rate	Cash flow	2048	Formosa 2 Bond	100%	(576,661)	1,714,359	-
Participating Swap	Exchange rate and interest rate	Cash flow	2027	Bond 2027	100%	(101,611)	83,185	(108,664)

Instrument	Underlying	Type of hedge	Maturity	Primary position (Lines/Bonds)	Hedge Ratio	Fair value 2019	Fair value 2018	Fair value 2017
CCS	Exchange rate and interest rate	CCS	2045	Bond 2045	67%	2,340,350	-	-
CCS	Exchange rate and interest rate	CCS	2029	Formosa 3 Bond	30%	(37,310)	-	-
Forwards	Exchange rate	Cash flow	Less than one year	Sale of energy	100%	(69)	115	105,058
IRS	Interest rate	Cash flow	2020	1100003807, 1200001251 and 1200001451	100%	3,230	84,118	114,720
IRS	Interest rate	Cash flow	2023	Nafin line	100%	(97,305)	-	-
CCS	Exchange Rate/Commodities	Cash flow	2020	Sale of energy	100%	(1,732)	-	-
			Subtotal			**4,446,770**	**17,758,178**	**16,523,052**
CCS	Exchange rate JPY/USD	Trading		Line of credit in yens	N/A	**(383,356)**	**24,963**	**(438,115)**
IRS	Interest rate		2020	1200001251		921		
	Total in thousands of Mexican pesos					**4,064,335**	**17,783,141**	**16,084,937**

The table above includes the Mark to Market of the hedging derivatives. As of December 31, 2019, the total Mark to Market value of the hedging and trading derivatives amounts to $4,064,335 based on their carrying amount.

The results of the effectiveness tests for these hedging instruments showed that the relationships are highly effective. The amount of ineffectiveness is minimal; therefore, no hedge ineffectiveness was recognized.

Fair value (Mark to Market - MTM) is determined using valuation techniques at present value to discount future cash flows, which are estimated using observable market data. The carrying amount of OCI includes the fair value (mark to market), and the reclassifications to profit and loss correspond to accrued interest and currency hedging (gain or loss).

As of December 31, 2019, the effects of OCI in the upcoming years (current portfolio) is as follows:

	Millions of pesos		
Year	**MTM**	**OCI**	**Results (Interest and exchange rate)**
2020	19,590	10,368	9,222
2021	26,365	9,530	16,835
2022	32,854	9,241	23,613
2023	37,226	7,295	29,931
2024	31,218	5,564	25,654

b. Fair value measurement

The valuation techniques for estimating the fair value of derivative instruments are described in the accounting policy mentioned above, depending on the derivative instrument for which the fair value is estimated. CFE uses the corresponding technique to estimate such value.

Adjustment of fair value or Mark to Market by credit risk

To reflect counterparty risk, the valuation is adjusted based on the probability of default and recovery rate with the counterparties of the derivative positions.

The net fair value of derivative financial instruments (Mark-To-Market) effective as of December 31, 2019, before considering credit risk, amounts to $4,088,632, which is included in the balance sheet and represents the amount in favor of the Company with the counterparties.

The net fair value of derivative financial instruments (Mark-To-Market) effective as of December 31, 2018, before considering credit risk, amounts to $18,027,897, which is included in the balance sheet and represents the amount in favor of the Company with the counterparties.

The net fair value of derivative financial instruments (Mark-To-Market) effective as of December 31, 2017, before considering credit risk, amounts to $17,112,665, which is included in the balance sheet and represents the amount in favor of the Company with the counterparties.

CFE applies a Credit valuation adjustment (CVA) to reflect the creditworthiness of the counterparty of the derivative financial instrument. The CVA is the market value of the counterparty credit risk and reflects the estimated fair value of the hedging required to cover the counterparty credit risk included in such instruments

Method for adjusting Fair Value

This method was approved by the Interinstitutional Delegate Committee for Financial Risk Management associated to the financial position and price of fossil fuels (CDIGR), as the methodology for adjusting derivative financial instruments to fair value.

As at December 31, 2019, fair values adjustments based on the CVA (Credit Valuation Adjustment) are shown below:

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

	Thousands of pesos		
Counterparty	**Fair value MTM subject to CVA**	**Adjusted fair value MTM**	**Adjustment as at December 31, 2019**
BBVA Bancomer	326,002	325,295	707
BNP Paribas	231,857	231,477	380
CitiBanamex	1,084,420	1,080,022	4,398
Credit Agricole	792	791	1
Credit Suisse	79,210	79,006	204
Deutsche Bank	1,910,192	1,901,563	8,629
Goldman Sachs	1,193,832	1,187,199	6,633
HSBC	(96,504)	(96,505)	1
JP Morgan	(69,387)	(69,388)	1
Morgan Stanley	99,476	98,047	1,429
SANTANDER	(623,280)	(623,361)	81
Barclays Bank	77,136	75,888	1,248
Bank of America	258,311	257,727	584
MONEX	(69)	(69)	0
Goldman Sachs (Trading)	(383,356)	(383,357)	1
	4,088,632	**4,064,335**	**24,297**

As at December 31, 2018, the adjustments to fair values based on the CVA (Credit Valuation Adjustment) are shown below:

	Thousands of pesos		
Counterparty	**Fair value MTM subject to CVA**	**Adjusted fair value MTM**	**Adjustment as at December 31, 2018**
CREDIT SUISSE	227,559	225,761	1,798
DEUTSCHE BANK	3,051,653	2,977,803	73,850
MORGAN STANLEY	2,232,949	2,146,936	86,013
SANTANDER	1,687,633	1,679,195	8,438
BNP PARIBAS	771,993	767,593	4,400
BBVA BANCOMER	1,081,491	1,074,569	6,922
GOLDMAN SACHS	5,035,369	4,976,669	58,700
CITIBANAMEX	1,088,699	1,082,711	5,988
CREDIT AGRICOLE	7,694	7,650	44
HSBC	7,793	7,763	30
JP MORGAN	392,195	390,156	2,039
BARCLAYS BANK	2,442,869	2,421,372	21,497
GOLDMAN SACHS (Trading)	-	24,963	-24,963
	18,027,897	**17,783,141**	**244,756**

As of December 31, 2017, the adjustments to fair values based on the CVA (Credit Valuation Adjustment) are shown in the page below:

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

	Thousands of pesos		
Counterparty	**Fair value MTM subject to CVA**	**Adjusted fair value MTM**	**Adjustment as at December 31, 2017**
CREDIT SUISSE	233,994	233,994	-
DEUTSCHE BANK	3,102,561	3,102,561	-
MORGAN STANLEY	2,811,977	2,663,721	148,256
SANTANDER	3,133,420	3,133,420	-
BNP PARIBAS	1,409,163	1,408,675	488
BBVA BANCOMER	2,270,034	2,270,034	-
GOLDMAN SACHS	2,234,522	2,234,522	-
CITIBANAMEX	128,596	128,426	170
CREDIT AGRICOLE	14,663	14,663	-
HSBC	15,476	4,875	10,601
JP MORGAN	5,915	(424,143)	430,058
BARCLAYS BANK	1,752,344	1,752,304	(40)
J Aron (Trading)	-	(438,115)	438,115
	17,112,665	**16,084,937**	**1,027,648**

Fair Value hierarchy or Mark-to-Market

To increase consistency and comparability in fair value measurements and related disclosures, IFRS sets out a fair value hierarchy that categorizes into three levels the inputs used in valuation techniques. This hierarchy gives the highest priority to (unadjusted) quoted prices in active markets for assets and liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3).

The availability of relevant inputs and their relative subjectivity might affect the selection of appropriate valuation techniques. However, the fair value hierarchy prioritizes the inputs to valuation techniques.

Level 2 inputs

As explained above, based on the terms of the ISDA contracts, the counterparties or banking institutions are the valuation agents, and they calculate and send the Mark-to-Market monthly.

Therefore, the hierarchy level of the Company's Mark-to-Market for derivative financial instruments as of December 31, 2019 is level 2 due to the following:

a) Inputs are other than quoted prices included within Level 1 that are observable, either directly or indirectly.

b) Quoted prices for similar assets or liabilities in active markets.

c) Inputs other than quoted prices that are observable for the asset or liability.

d) Financial risk management

CFE has exposure to the following risks arising from financial instruments:

- Credit risk
- Liquidity risk
- Market risk

Credit risk

Credit risk is the risk of financial loss to the Company if a counterparty to a financial instrument fails to meet its contractual obligations To mitigate its credit risk, the Company's policy is to maintain a significant portion of its positions with investment grade counterparties and substantially limit its positions with below investment grade counterparties.

To manage credit risk, the Company monitors the credit rating and the probability of default of the counterparty, which is applied to the market value of the derivative. These transactions are carried out with solvent and well-known parties that have AAA+ credit rating on a local scale, and BBB+ on a global scale, according to S&P, Moody's and Fitch.

The carrying amount of the derivative financial assets represents the maximum exposure to credit risk. As of December 31, 2019, 2018 and 2017, this amounted to $4,088,632, $18,027,897 and $17,112,665, respectively.

Liquidity risk

The liquidity risk associated with financial derivative instruments is the risk that CFE may encounter difficulties in meeting the financial obligations arising from these instruments.

To manage credit risk, the Company monitors the market value of the derivative and the use by the operating lines (threshold).

Exposure to liquidity risk for holding derivative financial instruments arises from the carrying amount of the financial liabilities corresponding to these instruments. As of December 31, 2019, 2018 and 2017, this amounted to $3,220, $72,615 and $589,533, respectively.

The table below lists the contractual maturities of the derivative financial instruments based on payments terms.

	Amounts in millions of pesos		
December 31, 2019	**Less than one year**	**More than 1 year and less than 5 years**	**Total**
IRS	187	476	663
CCS	13,400	81,535	94,935
Total payable	**13,587**	**82,011**	**95,598**
IRS	88		88
CCS	8,930	80,201	89,131
Total receivable	**9,018**	**80,201**	**89,219**

	Amounts in millions of pesos		
December 31, 2018	**Less than one year**	**More than 1 year and less than 5 years**	**Total**
IRS	266	105	371
CCS	9,818	51,020	60,838
Total payable	**10,084**	**51,125**	**61,209**
IRS	334	128	462
CCS	6,675	45,868	52,543
Total receivable	**7,009**	**45,996**	**53,005**

	Amounts in millions of pesos		
December 31, 2017	**Less than one year**	**More than 1 year and less than 5 years**	**Total**
IRS	1,425	1,431	2,856
CCS	5,676	22,395	28,071
Forwards	6,070	-	6,070
Total payable	**13,171**	**23,826**	**36,997**
IRS	1,013	1,762	2,775
CCS	5,210	23,865	29,075
Total receivable	**6,223**	**25,627**	**31,850**

Market risk

The market risk associated with derivative financial instruments is the risk that changes in market prices, such as exchange rates and interest rates, will affect CFE's income for holding derivative financial instruments.

CFE uses financial derivative instruments to manage market risk, generally seeking access to hedge accounting to control or immunize the volatility that could arise in the results.

a) Currency exchange risk

53.7% of CFE's debt is denominated in foreign currency, mainly in US dollars, whereas most of CFE's assets and revenues are denominated in pesos. As a result, CFE is exposed to devaluation risks of the peso against the dollar. In conformity with its risk management policy, CFE has contracted currency swaps to reduce the impact of currency fluctuations. The effect of this instrument is to replace the obligation to pay fixed interest rates in dollars for an obligation to pay a fixed rate in pesos. As of December 31, 2019, 2018 and 2017, CFE maintains foreign exchange swaps to hedge its foreign currency debt of $121,094, $108,837 and $72,135, million pesos, respectively.

To cover the exchange risks of the $32 billion debt in yens, CFE uses a series of exchange rate forwards under which it purchases Japanese yens. The market value of this transaction as of December 31, 2019, 2018 and 2017 was ($383,356), $24,973 and ($438,115), respectively. These derivative instruments were not designated as hedges.

Sensitivity analysis of the effect on exchange rates

A possible and reasonable strengthening (weakening) of the MXN/USD and JPY/USD exchange rate as of December 31, 2019 would have affected the fair value of the total position of the derivative financial instruments in foreign currency, and thus, profit and loss of the period and other comprehensive income (since some of them are designated as hedges), as shown in the following table:

	Effect on profit or loss		**Effect on equity**	
Instrument	**+100 pips**	**-100 pips**	**+100 pips**	**-100 pips**
Cross Currency	63,418	(63,418)		
JPY/USD			2,694	(2,694)
FWD	18	(18)		
Total	63,436	(63,436)	2,694	(2,694)

This analysis assumes that all other variables, in particular interest rates, remain constant (amounts in thousands of pesos).

b) Interest rate risk

30.7% of CFE's debt bears interest at variable interest rates, which are determined by reference to the TIIE rate for debt denominated in pesos. As of December 31, 2019, 2018 and 2017, CFE hedged $5,350, $3,912 and $4,833, respectively, of its variable interest rate debt denominated in pesos.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

Interest rate sensitivity analysis

A potential and reasonable strengthening (weakening) of interest rates as of December 31, 2019 would have affected the fair value of the total position of derivative financial instruments associated with variable interest rates, and thus, profit and loss of the period and other comprehensive income (since some of them are designated as hedges), as shown in the following table:

	Effect on equity	
31/12/19	**+ 100 basis points**	**- 100 basis points**
Interest rate swaps	53,498	(53,498)

This analysis assumes that all other variables, in particular interest rates, remain constant.

13. Short-term and long-term debt

An analysis of the Company's debt as of December 31, 2019, 2018 and 2017 is as follows:

	2019	2018	2017
Bank loan	$ 565,356	$ 7,494,715	$ 1,433,452
Documented debt	39,171,577	15,554,180	25,918,516
PIDIREGAS debt	14,159,869	16,780,375	21,145,914
Total short-term debt	**53,896,802**	**39,829,270**	**48,497,882**
Documented debt	177,625,432	200,491,057	181,003,413
PIDIREGAS debt	121,906,516	114,304,657	106,049,396
Total long-term debt	299,531,948	314,795,714	287,052,809
Total debt	**$ 353,428,750**	**$ 354,624,984**	**$ 335,550,691**

Movements in debt for the years ended December 31, 2019, 2018 and 2017, are as follows:

Type of debt	**Balance as of December 31, 2018**	**Drawdowns**	**Payments**	**Foreign exchange and interest rate differences**	**Balance as of December 31, 2019**
Bank Loan	7,494,715	171,083	(7,100,442)	-	565,356
Documented debt	216,045,238	21,341,290	(16,207,183)	(4,382,336)	216,797,009
Pidiregas debt	131,085,031	22,651,044	(14,709,494)	(2,960,196)	136,066,385
Total	**354,624,984**	**44,163,417**	**(38,017,119)**	**(7,342,532)**	**353,428,750**

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

Type of debt	Balance as of December 31, 2017	Drawdowns	Payments	Foreign exchange and interest rate differences	Balance as of December 31, 2018
Bank loan	1,433,452	14,495,387	(8,480,324)	46,200	7,494,715
Documented debt	206,921,928	61,988,412	(52,561,284)	(303,818)	216,045,238
Pidiregas debt	127,195,311	23,323,873	(19,919,623)	485,470	131,085,031
Total	**335,550,691**	**99,807,672**	**(80,961,231)**	**227,852**	**354,624,984**

Type of debt	Balance as of December 31, 2016	Drawdowns	Payments	Foreign exchange and interest rate differences	Balance as of December 31, 2017
Bank loan	-	1,433,452	-	-	1,433,452
Documented debt	209,613,471	29,097,192	(28,143,335)	(3,645,400)	206,921,928
Pidiregas debt	110,173,004	30,670,710	(14,115,711)	467,308	127,195,311
Total	**319,786,475**	**61,201,354**	**(42,259,046)**	**(3,178,092)**	**335,550,691**

Documented debt

An analysis of drawdowns against loans as of December 31, 2019, 2018 and 2017 is as follows:

A) Foreign debt

On April 10, 2019, the Company drew down USD 300 million against a revolving syndicated loan of USD 1.26 billion obtained in July 2018, with Mizuho Bank, LTD. as the loan's administrative agent, which bears interest equal to the USD LIBOR plus 0.95% and is repayable in 5 years.

On November 14, 2019, the Company drew down USD 25.2 million against the line of credit obtained from Banamex, S. A., whose proceeds were used to finance the purchase of enriched uranium for the Laguna Verde Nuclear Power Plant. This loan is for a term of three years, with repayments and interest payments due every six months, and bearing interest equal to the six-month USD LIBOR plus 0.90%.

In July 2018, the Company drew down USD 21 million against the line of credit obtained from Banamex, S.A., whose proceeds were used to finance the purchase of enriched uranium for the Laguna Verde Nuclear Power Plant. This loan is for a term of three years, with repayments and interest payments due every six months, and bearing interest equal to the six-month USD LIBOR plus 0.90%.

In July 2018, the Company drew down USD 300 million against the syndicated loan (BBVA Bancomer, S.A. as the Administrative Agent), bearing interest equal to the USD LIBOR plus 1.15%. This amount was repaid in August 2018.

In August 2018, the Company drew down USD 900 million against a revolving syndicated loan of USD 1.26 billion obtained in July 2018, with Mizuho Bank, LTD. as the loan's administrative agent, which bears interest equal to the USD LIBOR plus 0.95% and is repayable in 5 years.

In September, the Company drew down USD 5 million against the line of credit obtained from BBVA, S.A. Madrid, to finance the purchase of goods and services from Spain, guaranteed by Compañía Española de Seguros de Crédito a la Exportación (the Spanish Export Credit Agency).

In November, the Company drew down USD 212 million against the line of credit obtained from Banamex, S.A. whose proceeds were used to finance the purchase of enriched uranium for the Laguna Verde Nuclear Power Plant. This loan is for a term of three years, with repayments and interest payments due every six months, and bearing interest equal to the six-month USD LIBOR plus 0.90%.

In January, the Company drew down USD 126 million dollars against its line of line of credit obtained from Banco Santander, (Mexico), S. A. whose proceeds were used to finance the purchase of enriched uranium for the Laguna Verde Nuclear Power Plant. This loan is for a term of three years, with repayments and interest payments due every six months, and bearing interest equal to the six-month USD LIBOR plus 1.5%.

In February, the Company drew down USD 200 million against its syndicated loan (BBVA Bancomer, S.A. as the Administrative Agent), bearing interest equal to the USD LIBOR plus 1.2%. This amount was repaid in November 2017.

In addition, to finance various payments of Financed Public Work (OPF, Spanish acronym) projects, USD 750 million were placed through the issue of an international bond. Such bond bears a fixed interest rate of 5.2%, and the last payment will be in September 2047.

Lastly, to finance imports from Japan, Canada and Switzerland, CFE drew down JPY 115,488,810 (equal to USD 1 million) against the line of credit obtained from Japan Bank for International Cooperation (JBIC), USD 2 million against the line of credit obtained from Export Development of Canada (EDC), and CHF 218,050 (equal to USD 229,745 million) against the line of credit obtained from UBS Switzerland AG (UBS).

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

Type of credit	Weighted interest rate	Maturities	2019 Local currency	2019 Foreign currency (thousands)	2018 Local currency	2018 Foreign currency (thousands)	2017 Local currency	2017 Foreign currency (thousands)
IN US DOLLARS: at an exchange rate of $18.8452 per U.S. dollar at Dec 2019 and $19.6829 at Dec 2018								
BILATERAL	Fixed and variable – 2.3%	Various through 2023	1,531,535	81,269	1,892,101	96,129	1,720,686	86,962
BONDS	Fixed and variable – 5.27%	Various through 2049	94,909,175	5,036,252	96,020,078	4,878,350	97,696,627	5,206,964
REVOLVING	Fixed and variable – 3.01%	Various through 2020	525,712	27,896	1,459,081	74,129	2,660,379	134,453
SYNDICATED	Fixed and variable – 2.95%	2023	11,307,120	600,000	11,809,740	600,000	-	-
	TOTAL IN U.S. DOLLARS		108,273,543	5,745,418	111,181,000	5,648,609	102,077,691	5,428,378
IN EUROS: at an exchange rate of $21.175 per euro at 31 Dec 2019 and $22.4691 at Dec 2018								
BILATERAL	Fixed and variable – 2%	Various through 2024	13,212	624	24,710	1,100	41,741	1,768
REVOLVING	Fixed and variable – 1.8%	Various through 2020	45	2	2,307	103	4,946	210
	TOTAL EUROS		13,257	626	27,017	1,202	46,687	1,978
IN SWISS FRANCS: at an exchange rate of $19.4791 per Swiss franc at Dec 2019 and $19.944 at Dec 2018								
BILATERAL	Fixed and variable – 0%	Various through 2015	-	-	-	-	-	-
REVOLVING	Fixed and variable – 1.28%	Various through 2021	34,019	1,746	338,458	16,970	909,359	45,080
	TOTAL SWISS FRANCS		34,019	1,746	338,458	16,970	909,359	45,080
IN JAPANESE YENS: at an exchange rate of $0.1736 per Japanese yen at December 2019 and $0.179 at December 2018								
BILATERAL	Fixed and variable – 1%	Various through 2021	131,887	759,720	388,555	2,170,700	676,485	3,874,487
			131,887	759,720	388,555	2,170,700	676,485	3,874,487
Bond	Fixed - 3.83%	2032	5,555,200	32,000,000	5,728,000	32,000,000	5,587,200	32,000,000
			(476,909)		(423,970)		(255,199)	
			5,078,291	32,000,000	5,304,030	32,000,000	5,332,001	32,000,000
TOTAL JAPANESE YENS			5,210,179	32,759,720	5,692,585	34,170,700	6,008,487	35,874,487
	Assets received for financial instruments,net (Note 10b)							
	TOTAL FOREIGN DEBT		**113,530,998**	**38,507,510**	**117,239,060**	**39,837,481**	**109,042,224**	**41,349,923**

B) Domestic debt

On August 28, 2019, the Company drew down MXN 2.5 billion against the loan taken out with BBVA Bancomer on August 2, 2019, which bears interest equal to the 28-day Mexican weighted interbank rate (TIIE) plus 0.80% and which has a maturity date of July 18, 2020 and is repayable in 4 years 2 months.

On December 2, 2019, the Company drew down MXN 4 billion against the loan taken out with Banco Santander on July 18, 2018, which bears interest equal to the 28-day Mexican weighted interbank rate (TIIE) plus 0.25% and which has a maturity date of July 18, 2020.

On December 11, 2019, the Company drew down $ 5.5 billion against the loan taken out with BBVA Bancomer on December 9, 2019, which bears interest equal to the 28-day Mexican weighted interbank rate (TIIE) plus 0.20% and which has a maturity date of March 9, 2020 and which has a maturity date of March 9, 2020.

In February 2018, the Company drew down MXN 2.5 billion against the revolving line of credit obtained from BBVA Bancomer, S.A., and in March it drew down an additional MXN 2.5 billion against such line of credit, which bears interest equal to the 28-day Mexican weighted interbank rate (TIIE) plus 0.48%.

In May 2018, the Company drew down MXN 5 billion against the revolving line of credit obtained from Banco Santander, S.A., which bears interest equal to the 28-day Mexican weighted interbank rate (TIIE) plus 0.20%.

In June 2018, the Company placed three Stock Certificate issues in the domestic market for a total amount of MXN 15,290 million.

1. Second reopening of the CFE 17 series in the amount of MXN 2.55 billion, which bears semi-annual interest at a fixed rate of 8.18% and matures in December 2027.
2. First reopening of the CFE 17 series in the amount of UDIS 1,342,321,400, equal to MXN 8.053 billion, that bears semiannual interest at a fixed rate of 4.54% and matures in September 2032.
3. Of the CFE 18 series, Stock Certificates were auctioned in the amount of MXN 4.687 billion, which bears variable interest equal to the 28-day Mexican weighted interbank rate (TIIE) plus 0.30% and matures in June 2021.

In July 2018, the Company drew down MXN 4 billion against the revolving line of credit obtained from Banco Santander, S.A., which bears interest equal to the 28-day Mexican weighted interbank rate (TIIE) plus 0.20%, and MXN 3 billion against the revolving line of credit obtained from BBVA Bancomer, S.A., which bears interest equal to the 28-day Mexican weighted interbank rate (TIIE) plus 0.30%, both with monthly interest payments.

In October, the Company drew down MXN 4 billion against the revolving line of credit obtained from Banco Santander, S.A., which bears interest equal to the 28-day Mexican weighted interbank rate (TIIE) plus 0.25%, and MXN 3 billion against the revolving line of credit obtained from BBVA Bancomer, S.A., which bears interest equal to the 28-day Mexican weighted interbank rate (TIIE) plus 0.30%, both with monthly interest payments.

In April 2017, the Company drew down MXN 2.5 billion against the revolving line of credit obtained from Banco Santander (México), S.A., and in July 2017 it drew down an additional MXN 2.5 billion, which bears interest equal to the 28-day Mexican weighted interbank rate (TIIE) plus 0.1%. These amounts were repaid in October 2017.

In July 2017, the Company placed two Stock Certificate issues:

1. Of the CFE 17 series, Stock Certificates were auctioned in the amount of MXN 7 billion at a fixed interest of 8.2%, which matures in December 2027.

2. Of the CFE 17-2 series, Stock Certificates were auctioned in the amount of MXN 1 billion bearing variable interest equal to the 28-day Mexican weighted interbank rate (TIIE) plus 0.25% and which matures in July 2020.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

In August 2017, the Company drew down MXN 2.5 billion against the revolving line of credit obtained from BBVA Bancomer, S. A., which bears interest equal to the 28-day Mexican weighted interbank rate (TIIE) plus 0.5%. This amount was repaid in November 2017.

In October 2017, the Company placed three Stock Certificate issues:

1. First reopening of the CFE 17 series in the amount of MXN 3 billion, which bears monthly interest at a fixed rate of 8.2% and matures in December 2027.
2. First reopening of the CFE 17-2 series in the amount of MXN 1.5 billion, which bears interest equal to the 28-day Mexican weighted interbank rate (TIIE) plus 0.4% and matures in July 2020.
3. Base placement of the CFE 17U series in the amount of UDIS 944,092,800, that bears interest at a fixed rate of 4.5%, and matures in September 2032.

In November 2017, the Company drew down MXN 2.5 billion against the revolving line of credit obtained from Banco Santander (México), S.A., which bears interest equal to the 28-day Mexican weighted interbank rate (TIIE) plus 0.1%. This amount was repaid in December 2017.

Domestic debt			**2019**	**2018**	**2017**
Type of credit	**Weighted interest rate**	**Maturities**	**L. Curr.**	**L. Curr.**	**L. Curr.**
BANKING	Fixed and variable – 8.09%	Various through 2023	17,000,000	7,500,000	7,600,000
STOCK MARKET	Fixed and variable – 7.81%	Various through 2027	65,487,330	70,987,330	79,000,000
		Total	82,487,330	78,487,330	86,600,000
IN UDIS: at and exchange rate of $6,399 Dec 2019 and $6.2266 Dec 2018					
STOCK MARKET	Fixed - 4.49%	2032	20,609,740	20,054,478	11,141,672
			20,609,740	20,054,478	11,141,672
	TOTAL DOMESTIC DEBT		**103,097,070**	**98,541,808**	**97,741,672**

	2019	**2018**	**2017**
Total foreign debt	113,530,998	117,239,060	109,042,224
Total domestic debt	103,097,070	98,541,808	97,741,672
Interest payable	2,529,070	2,602,680	2,476,343
Unamortized debt expenses	- 2,360,129	- 2,338,310	- 2,338,310
Total documented debt	216,797,009	216,045,238	206,921,929
Short-term debt	36,642,507	12,951,500	23,442,173
Short-term interest payable	2,529,070	2,602,680	2,476,343
Total short-term	39,171,577	15,554,180	25,918,516
Long-term debt	179,985,561	202,829,368	183,341,723
Unamortized debt expenses	- 2,360,129	- 2,338,310	- 2,338,310
Total long-term	177,625,432	200,491,058	181,003,413
Total short- and long-term	**216,797,009**	**216,045,238**	**206,921,929**

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

The maturity dates of the documented debt are as follows:

The documented debt liabilities mature as follows:

	Amount
2020	39,171,577
2021	24,463,456
2022	498,726
2023	20,843,562
2024	23,837,499
2025	21,280,638
2026	280,638
Subsequent years	86,420,913
Total	**216,797,009**

i) Debt on long-term productive infrastructure projects (PIDIREGAS, Spanish acronym)

An analysis of the balances and maturities of the PIDIREGAS (direct investment) debt as of December 31, 2019, 2018 and 2017 is as follows:

	Total 2019	**Total 2018**	**Total 2017**
Short term	$ 14,159,869	$ 16,780,375	21,145,914
Long term			
2018	-	-	688,164
2019	-	-	1,705,968
2020	-	479,952	293,720
2021	743	171,891	3,493,333
2022	719,852	2,196,057	2,154,690
2023	41,128	1,577,996	5,748,122
2024	2,166,266	4,520,686	-
2025	435,972	-	-
Subsequent years	118,542,555	105,358,075	91,965,399
Total long-term	$ 121,906,516	$ 114,304,657	106,049,396
Total	**$ 136,066,385**	**$ 131,085,032**	**127,195,310**

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

-Direct investment (PIDIREGAS):

As of December 31, 2019, 2018 and 2017, the debt for the acquisition of plants, facilities and equipment through PIDIREGAS was recognized in accordance with International Financial Reporting Standards, an analysis is as follows:

		Term of the agreement	Balance as of December 31, 2019 (thousands of units)				Balance as of December 31, 2018 (thousands of units)				Balance as of Decembe31,r 2017 (thousands of units)			
			Local currency		Foreign currency		Local currency		Foreign currency		Local currency		Foreign currency	
			Short term	Long term	Short term	Long term	Short term	Long term	Short term	Long term	Short term	Long term	Short term	Long term
Foreign debt														
-	million dollars	2019	-	-	-	-	144,872	-	7,360	-	539,009	145,636	27,241	7,360
14	million dollars	2020	257,249	-	13,651	-	537,369	268,684	27,301	13,651	540,203	810,304	27,301	40,952
32	million dollars	2026	85,279	511,677	4,525	27,152	89,070	623,492	4,525	31,677	89,540	716,320	4,525	36,202
266	million dollars	2029	514,722	4,494,765	27,313	238,510	537,603	5,232,168	27,313	265,823	540,438	5,800,198	27,313	293,136
371	million dollars	2032	1,135,240	5,863,933	60,240	311,163	1,185,703	7,310,297	60,240	371,403	1,191,956	8,540,805	60,240	431,644
780	million dollars	2036	828,273	13,868,907	43,951	735,938	865,091	15,350,493	43,951	779,890	869,654	16,301,098	43,951	823,841
51	million dollars	2039	-	966,476	-	51,285	-	-	-	-	-	-	-	-
643	million dollars	2047	937,666	11,173,343	49,756	592,901	983,500	12,765,641	49,967	648,565	1,367,973	22,954,350	69,137	1,160,090
1,340	million dollars	2048	1,010,912	24,246,530	53,643	1,286,616	1,072,434	26,855,367	54,487	1,364,401	-	-	-	-
478	million dollars	2049	301,670	8,702,624	16,008	461,795	-	-	-	-	-	-	-	-
Total foreign debt			**5,071,011**	**69,828,255**	**269,087**	**3,705,360**	**5,415,642**	**68,406,142**	**275,144**	**3,475,410**	**5,138,773**	**55,268,711**	**259,708**	**2,793,225**

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

		Term of the agreement	Balance as of December 31, 2019 (thousands of units)				Balance as of December 31, 2018 (thousands of units)				Balance as of December 31, 2017 (thousands of units)			
			Local currency		Foreign currency		Local currency		Foreign currency		Local currency		Foreign currency	
			Short term	Long term	Short term	Long term	Short term	Long term	Short term	Long term	Short term	Long term	Short term	Long term
Domestic debt														
-	million pesos	2018	-	-			-	-			1,915,888	-		
-	million pesos	2019	-	-			554,554	-			1,011,552	542,528		
23	million pesos	2020	23,258	-			656,653	211,268			1,143,268	895,664		
2	million pesos	2021	1,486	743			121,828	171,891			181,999	293,720		
1,226	million pesos	2022	505,897	719,852			1,298,802	2,196,057			2,265,874	3,493,333		
68	million pesos	2023	27,223	41,128			576,694	1,577,996			792,720	2,154,690		
2,708	million pesos	2024	541,567	2,166,266			1,302,860	4,520,686			1,578,043	5,748,122		
629	million pesos	2025	193,308	435,972			491,312	1,985,983			644,745	2,736,176		
22,894	million pesos	2026	3,683,640	19,210,836			2,051,277	9,566,386			2,550,125	12,027,493		
-	million pesos	2027	-	-			1,332,149	7,364,884			1,612,159	9,360,896		
3,900.75	million pesos	2028	413,028	3,487,726			261,525	1,714,698			-	-		
15,380	million pesos	2033	1,340,813	14,038,817			444,262	3,871,210			-	-		
1,422	million pesos	2036	83,664	1,338,630			83,664	1,422,294			83,664	1,505,959		
11,311	million pesos	2042	681,880	10,629,470			726,944	11,286,338			753,692	12,013,283		
Total domestic debt			7,495,764	52,069,440			9,902,524	45,889,691			14,533,729	50,771,864		
Interest payable			1,593,094				1,462,209				1,473,412			
CEBURES				8,821				8,821				8,821		
Total PIDIREGAS debt			**14,159,869**	**121,906,516**			**16,780,375**	**114,304,654**			**21,145,914**	**106,049,396**		

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

a. As of December 31, 2019, 2018 and 2017, minimum payment commitments on PIDIREGAS are as follows:

	2019	**2018**	**2017**
PIDIREGAS	200,239,308	190,029,498	176,974,622
less:			
Unaccrued interest	65,774,757	60,415,497	49,788,133
Present value of obligations	134,464,551	129,614,001	127,186,489
less:			
Current portion of obligations	12,566,856	15,318,165	21,145,914
Long-term portion of PIDIREGAS	121,897,695	114,295,836	106,040,575
CEBURES	8,821	8,821	8,821
Total CEBURES and PIDIREGAS	**121,906,516**	**114,304,657**	**106,049,396**

As at December 31, 2019, 2018 and 2017, the following affiliated entities have bank loans with third parties:

	2019	**2018**	**2017**
CFE Internacional LLC	566,461	394,273	-
CFEnergía	-	7,100,442	1,433,452
Total bank loans	**566,461**	**7,494,715**	**1,433,452**

C) CFE Internacional LLC

In September 2019, CFE International LLC obtained a short-term loan of USD 100 million from Credit Agricole-CIB NY Branch, which CFE International LLC received in two drawdowns, as follows: the first drawdown of USD 30 million payable in 90 days, with a maturity date of December 2, 2019 and interest equal to the LIBOR rate of 2.12413% plus a spread of 0.90%, resulting in a total rate of 3.02413%; and the second drawdown of USD 70 million payable in 91 days, with a maturity date of December 23, 2019 and interest equal to the LIBOR rate of 2.15888% plus a spread of .90%, resulting in a total rate of 3.05888%. For the first drawdown of USD 30 million, CFE International LLC requested an extension in the maturity to an additional 91 days, with the new maturity date being March 2, 2020.

In December 2018 CFE International LLC acquired a short-term loan from JPMorgan Chase Bank NA that is repayable in a term of 30 days, with repayment due by January 17, 2019, and which bears interest at a rate equal to the LIBOR plus a margin of 1.25%.

D) CFEnergía

i. An analysis of bank loans at December 31, 2018 is as follows:

- Drawdowns made against the line of credit obtained from BANORTE on December 27 in the amounts of $4,450 and $150, which will mature on January 28, 2019. Interest accrued on the drawdowns mentioned above amounted to $4,860, which was recognized as part of comprehensive financing cost. The Company repaid the principal plus accrued interest on this loan on January 22, 2019.

- As at December 31, CFEnergía obtained a one-time special line of credit from BANORTE in the amount of $2,000,000, which will mature on February 4, 2019. This drawdown will bear interest at a rate equal to the Mexican weighted interbank rate (TIIE) plus 1 percentage point. The Company repaid the principal plus accrued interest on this loan on January 28, 2019.

- On December 27, 2018, the Company drew down $495,000 against the line of credit obtained from MONEX. This drawdown will mature on January 28, 2019. Accrued interest on the drawdown amounted to $582, which was recognized as part of comprehensive financing cost. the Company repaid the principal plus accrued interest on this loan on January 22, 2019.

ii. On December 20, 2018, CFEnergía contracted a revolving line of credit with Monex for up to USD 25 million, which may be drawn down in U.S. dollars or Mexican pesos. Drawdowns in Mexican pesos bear interest equal to the Mexican weighted interbank rate (TIIE) + 2 percentage points and drawdowns in U.S. dollars bear interest equal to the LIBOR + 1.75 percentage points, as indicated on the corresponding promissory notes.

iii. On December 27, 2017, CFEnergía drew down USD 65 million and 150 million pesos, both of which mature on January 22, 2018.

CFEnergía repaid the drawdowns in due time and form in January 2019.

iv. On December 22, 2017, CFEnergía contracted a revolving line of credit with Grupo Financiero Banorte for up to USD 85 million, which may be drawn down in U.S. dollars or Mexican pesos. Drawdowns in Mexican pesos bear interest equal to the 28-day Mexican weighted interbank rate (TIIE) + 95 and drawdowns in U.S. dollars bear interest equal to the one-month London Interbank Offered Rate (LIBOR) + 195.

On August 17, 2018, CFEnergía entered into an agreement with Banorte to amend the current account loan agreement entered into on December 22, 2017 in order to increase the available line of credit to USD 250,000.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

The loan agreement stipulates affirmative and positive loan covenants that the Company must adhere to. These loan covenants require the Company to refrain from doing the following until the loan has been repaid in full:

a) Modify its corporate purpose, except for adding complementary or secondary activities to its main activity;
b) Modify its line of business and the nature of its principal activities or cease engaging in them altogether;
c) Initiate its dissolution or liquidation;
d) Merge into another company or carry out a corporate transformation or spin-off, etc;

The Company agrees that its non-compliance with any of these obligations would be sufficient cause for the Bank to demand the immediate settlement of the loan, plus all accrued interest and related accessory charges.

14. Lease Liabilities

Lease liabilities as of December 31, 2019 are, as follows:

		2019		2018		2017
January 1st	$	456,445,996	$	419,794,510	$	351,914,789
Additions		151,674,080		51,450,114		93,664,635
Interest		23,889,828		22,114,211		17,942,019
Payments		- 40,455,722		- 34,928,753		- 30,257,183
Effect from translation		- 4,032,854		- 315,972		- 3,377,314
Exchange difference		- 19,608,097		- 1,668,114		- 10,092,436
Total liabilities	$	567,913,231	$	456,445,996	$	419,794,510
Less portion of short-term liabilities		11,074,905		26,856,724		15,726,965
Total long-term liabilities	$	**556,838,326**	$	**429,589,272**	$	**404,067,545**

Lease payments as of December 31, 2019 are, as follows:

	2019	2018	2017
Less than one year	11,074,905	26,847,724	15,726,965
More than 1 year and less than 3 years	8,682,411	14,711,981	21,905,178
More than 3 years and less than 5 years	21,774,620	12,743,649	10,640,991
More than 5 years	526,381,295	402,142,642	371,521,376
Total lease liabilities (undiscounted)	**567,913,231**	**456,445,996**	**419,794,510**

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

15. Other Accounts Payable and Accrued Liabilities

Other accounts payable and accrued liabilities as of December 31, 2019, 2018 and 2017 is, as follows:

		December 31, 2019		December 31, 2018		December 31, 2017
Suppliers and contractors	$	37,808,697	$	60,196,912	$	59,849,154
Employees		5,054,394		4,680,424		4,213,117
Deposits from users and contractors		28,945,790		25,619,843		22,974,717
Other taxes and duties		2,273,976		3,610,547		2,477,256
Other liabilities		2,965,536		13,996,163		12,198,773
Value added tax		9,126,331		4,740,750		8,562,279
Total	$	**86,174,724**	$	**112,844,639**	$	**110,275,296**

16. Other Long-term Liabilities

An analysis of Other long-term liabilities as of December 31, 2019, 2018 and 2017 is as follows:

		December 31, 2019		December 31, 2018		December 31, 2017
Third-party contributions	$	7,162,731	$	5,839,143	$	8,039,903
Decommissioning provision (a)		14,090,661		13,744,939		15,329,206
Other provisions		1,803,806		867,113		55,558
Total	$	**23,057,198**	**$**	**20,451,195**	**$**	**23,424,667**

(a) Decommissioning provision

	Opening balance	Increase	Reversals	Ending balance
2019	13,744,939	345,722	- -	14,090,661
2018	15,329,206	508,347	2,092,614	13,744,939
2017	12,888,114	4,804,859	2363767	15,329,206

As of December 31, 2019, 2018 and 2017, other long-term liabilities include decommissioning provisions, which are required to demonstrate the availability of resources for the Company to decommission radioactive elements in accordance with the Nuclear Regulatory Commission (NRC) Standard. Decommissioning provisions are measured at present value using a discount rate of 3% and they also cover likely losses arising from the Company's obligations related to environmental remediation.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

17. Employee Benefits

CFE has employee benefits plans for employee terminations and retirements due to causes other than a restructuring event. The retirement benefits plan considers the number of years of service completed by the employee and the employee's compensation at the retirement date. The retirement benefits plan includes the seniority bonus that employees are entitled to receive upon termination of the employee relationship, as well as other benefits defined in the collective labor agreement.

The actuarial valuations of the plan assets and the present value of the defined benefit obligation are performed by independent actuaries using the projected unit credit method.

a. The economic assumptions in nominal and real terms used in the years ended December 31, 2019, 2018 and 2017 are as follows:

	2019	**2018**	**2017**
Discount rate	7.25%	9.00%	7.75%
Expected return rate on plan assets	7.25%	9.00%	7.75%
Salary increase rate	4.02%	4.02%	4.02%

b. An analysis of the net period cost for the three years ended December 31, 2019, 2018 and 2017 is as follows:

	2019	**2018**	**2017**
Service cost	8,333,222	7,698,916	7,463,000
Interest cost	45,156,842	40,475,082	40,348,000
Interest on the Plan Assets	(17,589,870)	(28,178,282)	-
Recognition of past service	-	544,062	92,316
Net period cost	35,900,194	20,539,778	47,903,316

The net actuarial gains or losses derive from changes in the assumptions used by the actuary to calculate the labor liabilities, as a result of the increase in the average wage rate and the increase in pensions. The net gains and losses recognized in the years ended December 31, 2019, 2018 and 2017 are disclosed in paragraph d., below.

The amount included as a liability in the Statement of Financial Position for each of the years ended December 31, 2019, 2018 and 2017 with respect to the Company's liability for its defined benefit plan is as follows.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

	2019	2018	2017
Defined benefit obligation	$ 637,678,666	$ 522,841,964	$ 529,248,000
Fair value of the plan assets and promissory notes issued by the Ministry of Finance and Public Credit (SHCP, Spanish acronym).	210,818,107	195,389,375	167,467,661
Net projected obligation	$ **426,860,559**	$ **327,452,589**	$ **361,780,339**

c. A reconciliation from the opening to the ending balances for the present value of the defined benefits obligation for the three years ended December 31, 2019, 2018 and 2017 is as follows:

	2019	2018	2017
Opening balance (nominal amount)	$ 522,841,964	$ 529,248,000	$ 527,784,000
Current service cost	7,168,244	7,698,916	7,463,000
Interest cost	45,156,842	40,475,082	40,348,000
Past service cost	1,164,978	544,062	92,316
Actuarial gain (loss)	101,586,568	(15,588,861)	(12,192,264)
Benefits paid	(40,239,930)	(39,534,335)	(35,045,000)
Other		(900)	797,948
Defined benefit obligation	$ **637,678,666**	$ **522,841,964**	$ **529,248,000**

d. A reconciliation from the opening to the ending balances for the fair value of the plan assets for the three years ended December 31, 2019, 2018 and 2017 is as follows:

	2019	2018	2017
Opening balance (nominal amount)	195,389,375	167,467,661	166,665,713
Return on plan assets	53,625	(63,916)	(32,000)
Expected returns	17,589,870	27,985,630	833,948
Remeasurement of losses on the return on plan assets	(2,214,763)	-	-
	210,818,107	**195,389,375**	**167,467,661**

Trust to manage the Pension and Retirement Reserve funds**.**

On October 31, 2019, CFE received from the Ministry of Finance and Public Credit the first promissory note of $1,445,977,409, which generated returns of $367,717,321.

On October 31, 2018, CFE received from the Ministry of Finance and Public Credit the first promissory note of $ 892,729,928, which generated returns of $116,252,404.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

CFE created the Scotiabank Inverlat S.A. FID 11040961 Trust that manages the Pension and Retirement Reserve funds. As of December 31, 2019, and 2018 the trust balance amounts to $9,633,597 and $5,939,719, respectively.

e. The most significant assumptions used in determining the net period cost of the pension plans for the three years ended December 31, 2019, 2018 and 2017, are as follows:

	2019	**2018**	**2017**
Discount rate	7.25%	9.00%	7.75%
Expected return rate on plan assets	7.25%	9.00%	7.75%
Salary increase rate	4.02%	4.02%	4.02%

As a result of this review, various clauses that mainly affect the retirements caption were amended, and an estimate of the effect of these changes was recognized as a reduction in the Company's labor obligations and consequently, a positive effect in profit or loss.

Employees who as of the effective date of the Agreement and in 2016 meet the age and/or seniority requirements for retirement set forth in the terms of the Collective Labor Agreement for 2014-2016, may elect to exercise their right to retirement.

As of January 1st, 2017, employees may request and be granted, through the SUTERM, their retirement with 100% of their average salary over the last four years that they worked for CFE, according to the following criteria: men will be candidates provided, a) they have completed 30 years of service and are at least 65 years old, or b) they have completed 40 years of service with no age limit; women will be candidates provided, a) they have completed 30 years of service and are at least 60 years old, or b) they have completed 35 years of service with no age limit.

f. Sensitivity analysis

In order to carry out the sensitivity analysis, the Company considered a +/- .5 points change in the discount, as such, the scenarios considered took into account the following financial assumptions:

	Scenario		
Concept	**Lower discount rate**	**Base**	**Higher discount rate**
Long-term inflation	3.5% annual	3.5% annual	3.5% annual
Discount rate	6.75% annual	7.25% annual	7.75% annual
Salary increase rate	4.2% annual	4.2% annual	4.2% annual
Minimum wage increase rate	3.5% annual	3.5% annual	3.5% annual

Based on these assumptions, the following liabilities were determined (amounts in millions of pesos):

	Scenario		
Defined Benefit Obligation	**Lower discount rate**	**Base**	**Higher discount rate**
Seniority premium	29,436	27,852	26,404
Severance pay and compensations	2,866	2,801	2,731
Pensions and retirements	635,471	602,036	570,875
Seniority bonus	5,190	4,989	4,802
Total	**672,963**	**637,678**	**604,812**

The percentage differences on the liabilities determined in the two additional scenarios, with respect to the base scenario, are shown in the following tables:

	Scenario		
Concept	**Base**	**Lower discount rate**	**Variance**
Seniority premium	27,852	29,436	5.69%
Severance pay and compensations	2,801	2,866	2.32%
Pensions and retirements	602,036	635,471	5.55%
Seniority bonus	4,989	5,190	4.03%
Total	**637,678**	**672,963**	**5.53%**

	Scenario		
Concept	**Base**	**Higher discount rate**	**Variance**
Seniority premium	27,852	26,404	-5.20%
Severance pay and compensations	2,801	2,731	-2.50%
Pensions and retirements	602,036	570,875	-5.18%
Seniority bonus	4,989	4,802	-3.75%
Total	**637,678**	**604,812**	**-5.15%**

18. Income Tax

Since 2015, CFE was transformed into a Productive State Enterprise and is no longer a Decentralized Public Company; consequently, it no longer is eligible for the tax regime set out in Title III of the Income Tax Law (Non-Profit Legal Entities) but rather applies the provisions set out in Title II of the aforementioned Law (general regime for Corporations and Legal Entities).

An analysis of the income tax (benefit) expense recognized in the years ended December 31, 2019, 2018 and 2017 is as follows.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

	2019	2018	2017
Current income tax	$ 7,023,817	$ 7,824,886	$ 3,528,959
Deferred income tax	20,003,514	(73,995,536)	(76,831,851)
Income tax	$ 27,027,331	$ (66,170,650)	$ (73,302,892)

The deferred tax related to items recognized in comprehensive income in the years ended December 31, 2019, 2018 and 2017 is as follows:

	2019	2018	2017
Labor obligations	$ (16,982,786)	$ (20,505,785)	$ -

An analysis of deferred taxes recognized in the statement of financial position as of December 31, 2018 and 2017 is as follows:

	2019	2018	2017
Deferred tax assets			
Labor obligations	$ 127,829,407	$ 128,495,379	$ 81,960,603
Provisions	2,273,086	1,167,952	1,896,785
Tax losses from prior years	2,138,573	6,500,850	-
Allowance for doubtful accounts	272,545	351,718	10,900
Decommissioning provision	2,661,800	3,057,014	406,018
Customer advances	316,681	-	-
Allowance for obsolete inventories	967,953	60,827	-
Deposits	-	39,702	-
Inventories	-	-	117,647
Fixed assets asset	6,670,391	13,880,982	-
Lease liabilities	22,187,945	13,771,602	-
Benefit for the deduction of intangible assets for tax purposes	85,309,299	89,725,979	-
Other	122,652	-	-
Deferred revenue	139,859	1,698,475	-
Total deferred tax assets on the page below	$ **250,890,191**	$ **258,750,480**	$ **84,391,953**

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

	2019	2018	2017
Deferred tax assets			
Total deferred tax assets from the page above	**$ 250,890,191**	**$ 258,750,480**	**$ 84,391,953**
Deferred tax liabilities			
Fixed asset liabilities	$ 82,939,863	$ 86,534,271	$ -
Accounts receivable	451,905	804,423	-
Distributions receivable	-	10,225	-
Deposits and advances	304,772	68,389	7,560,102
Total deferred tax liabilities	**83,696,540**	**87,417,308**	**7,560,102**
Total deferred income tax asset	**$ 167,193,651**	**$ 171,333,172**	**$ 76,831,851**

Changes in the deferred tax amounts for the years ended December 31, 2019, 2018 and 2017 are as follows:

	2019	2018	2017
Balance at beginning of year	$ 171,333,172	$ 76,831,851	$ -
Deferred tax benefit	(4,139,521)	94,501,321	76,831,851
Balance at end of year	**$ 167,193,651**	**$ 171,333,172**	**$ 76,831,851**

An analysis of the items that comprise unrecognized deferred tax assets is shown on the following page:

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

	As of December 31,		
	2019	**2018**	**2017**
Labor obligations	$ 50,704,309	$ 22,508,363	$ 41,353,810
Provisions	4,547,624	68,815	1,578,617
Losses from prior years	69,107,330	62,025,419	45,363,420
Allowance for doubtful accounts	8,053,473	8,306,765	11,152,450
Decommissioning provision	1,083,884	617,251	3,838,253
Deposits	1,454,868	-	-
Customer advances	2,155,999	2,094,092	8,368,235
Allowance for obsolete inventories	53,986	13,237	790,380
Fixed assets asset	7,456,142	10,424,087	(2,740,482)
Deposits and advances	(301,715)	-	-
Lease liabilities	(72,240)	1,384,296	-
Accounts receivable	(2,696,811)	-	-
Other	(1,670,593)	-	39,124
Deferred revenue	-	-	1,255,905
Total deferred tax assets	$ **139,876,256**	$ **107,442,325**	$ **110,999,712**

As of December 31, 2019, the available tax loss carryforward expire as follows:

Year	**Amount**	**Deferred tax asset**
2029	34,467,450	10,340,235
2028	91,376,184	27,412,855
2027	104,514,132	31,354,240
	230,357,766	**69,107,330**

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

Reconciliation of the effective tax rate

	2019	2018	2017
Income (loss) before income tax	$ 52,591,067	$ (4,545,344)	$ 34,405,915
Expected expense (benefit)	15,811,373	(1,363,603)	10,321,774
Annual inflation adjustment	5,321,131	8,245,149	4,254,966
Non-deductible expenses	3,085,760	4,701,597	736,779
Subsidy income	(22,555,740)	(24,421,590)	(19,774,440)
Effect of unrecognized deferred taxes from prior periods	-	(53,039,264)	(69,009,709)
Elimination of deferred tax assets	25,190,136	-	-
Other	174,671	(257,124)	131,927
Total	$ **27,027,331**	$ **(66,134,835)**	$ **(73,338,703)**

19. Other comprehensive income

Other comprehensive income as of December 31, 2019, 2018 and 2017 is as follows:

	Revaluation of plants, facilities and equipment	Remeasurements of net defined benefit obligation	Recognition of the assumption by the Federal Government of CFE's benefits and retirement obligations.	Cash flow hedges	Effect of translation into the functional currency	Deferred income tax from comprehensive income	Total other comprehensive income (loss)
Balance as at December 31, 2016	$ 388,608,985	(111,586,852)	161,080,204	9,149,999	$ -	$ -	$ 447,252,336
Comprehensive income (loss) for the period	(28,681,250)	(12,192,264)	-	10,401,629	(82,933)		(30,554,818)
Balance as at December 31, 2017	359,927,735	(123,779,116)	161,080,204	19,551,628	(82,933)	-	416,697,518
Comprehensive income (loss) for the period	**1,580,651**	**39,591,661**	**-**	**(12,252,497)**	**(37,393)**	**20,505,785**	**49,388,207**
Balance as at December 31, 2018	$ 361,508,386	$ (84,187,455)	$ 161,080,204	$ 7,299,131	$ (120,326)	$ 20,505,785	$ 466,085,725
Comprehensive income (loss) for the period	27,466,275	(103,819,133)	-	(6,685,744)		16,982,786	(65,055,816)
Balance as at December 31, 2019	$ **388,974,661**	$ **(188,006,588)**	$ **161,080,204**	$ **613,387**	$ **(120,326)**	$ **37,488,571**	$ **400,029,909**

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

20. Foreign Currency Position

As of December 31, 2019, 2018 and 2017, CFE had the following foreign currency denominated assets and liabilities:

2019

	Assets	Liabilities				
	Cash and cash equivalents	Suppliers	Domestic debt	Foreign Debt	Capital lease and Pidiregas	Foreign currency short position
U.S. dollars	78,315	350,467	-	6,014,892	9,432,479	15,719,523
Euros	-	-	-	626	-	626
Japanese yens	-	-	-	759,720	-	759,720
Swiss francs	-	-	-	1,746	-	1,746

2018

	Assets	Liabilities				
	Cash and cash equivalents	Suppliers	Domestic debt	Foreign debt	Capital lease and Pidiregas	Foreign currency short position
U.S. dollars	127,920	234,417	-	5,918,083	9,517,257	15,541,837
Euros	-	-	-	1,202	-	1,202
Japanese yens	-	-	-	2,170,700	-	2,170,700
Swiss francs	-	-	-	16,970	-	16,970

2017

	Assets	Liabilities				
	Cash and cash equivalents	Suppliers	Domestic debt	Foreign debt	Capital lease and Pidiregas	Foreign currency short position
U.S. dollars	1,215,536	21,659		5,428,378	9,096,684	13,331,184
Euros	505			2,360		1,855
Japanese yens	1,335,513			3,874,487		5,210,000
Swiss francs	31,644			45,080		13,436

Note: The JPY foreign debt includes the $32 billion bond in yens.

Note: The PIDIREGAS debt in dollars includes $5,766,703 million dollars of the financial lease debt with External Producers (as per IFRS).

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

These foreign currency denominated assets and liabilities were translated to local currency at the exchange rate published in the Official Gazette by Banco de Mexico as of December 31, 2019, 2018 and 2017, as shown below:

Currency	**2019**	**2018**	**2017**
U.S. dollar	18.8452	19.6829	19.7867
Japanese yen	0.1736	0.1790	0.1746
Swiss francs	19.4791	19.9440	20.1721
Euro	21.1750	22.4691	23.6062

21. Transactions with PEMEX

As of December 2018, Mr. Manuel Bartlett Diaz, CEO of CFE, was appointed member of the Board of Directors of Petróleos Mexicanos.

As of December 31, 2019, and 2018, CFE through its affiliated entity CFEnergía, S.A. de C.V. carried out transactions with Pemex for the acquisition of fuel in the following amounts:

		2019		**2018**
Sale of energy				
Pemex Transformación Industrial	$	1,058,422	$	869,211
Accounts receivable from the sale of energy				
Pemex Transformación Industrial	$	564,376	$	428,145
Accounts receivable				
Pemex Transformación Industrial	$	625,676	$	3,338,542
P.M.I. Trading Designated Activity Company		68,343		-
Pemex Fertilizantes		183,710		-
Revenue				
Pemex Transformación Industrial		3,041,678		2,878,053
PMI Trading Designated Activity Company		60,068		-
Pemex Fertilizantes		158,371		-
Account payable				
Pemex Transformación Industrial	$	1,620,096		5,510,007
Purchases				
Pemex Transformación Industrial		38,548,183		60,415,053
PMI Trading México		957,928		833,335
P.M.I. Trading Designated Activity Company		5,662,164		-
PMI Trading Limited		-		7,419,842

Benefits paid to CFE's main officers in the fiscal years ended December 31, 2019 and 2018, amounted to approximately $38,117 and $46,023, respectively.

22. Contingencies and Commitments

Contingencies

CFE is party to several lawsuits and claims filed against it in the normal course of its business. The amounts of such lawsuits are deemed immaterial with respect to the Company's current financial position and its expected financial performance in the following years.

Commitments

a. Natural gas supply contracts

The Company has entered into contracts for services related to the reception, storage, transportation, regasification and supply of liquefied natural gas. The contractual commitments consist of acquiring, during the supply period, daily base amounts of natural gas as set forth in the respective contracts.

b. Financed public work contracts

As of December 31, 2019, CFE has entered into several financed public work contracts and the payment commitments will begin on the dates on which the private investors complete the construction of each of the investment projects and deliver the related assets to CFE for their operation. The estimated amounts of the financed public work contracts and the estimated dates of construction completion and startup of operations are shown in the table below:

Transmission lines and substations:

Capacity		Estimated amount of the contract expressed in millions of:	
Kmc	MVA	Dollars	Pesos
500.96	3,327.51	331.91	6,254.9

Generation:

MCA capacity	Estimated amount of the contract expressed in millions of:	
	Dollars	Pesos
2,435.34	2,025.60	38,172.9

Renovation and/or modernization

Estimated amount of the contract expressed in millions of:	
Dollars	Pesos
380.0	7,161.0

These projects are registered under the PIDIREGAS scheme (long-term productive infrastructure projects).

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

c. Trusts

1 Scope of action

1.1. CFE currently participates as Trustor or Beneficiary in 10 (ten) Trust Funds, of which two (two) are in the process of termination.

1.2. In conformity with its purpose and operating characteristics, the trust funds can be classified in the following groups:

a. Energy saving
b. Prior expenses
c. Work contract management
d. Indirect participation trust funds

a. Energy saving

Trust funds to promote energy saving programs.

Trust fund	Role of CFE		
	Trustor	**Trustee**	**Trust Beneficiary**
Trust fund for Energy Savings (FIDE), created on August 14, 1990	Creation of the Trust: Confederación de Cámaras Industriales (CONCAMIN), Cámara Nacional de la Industria de Transformación (CANACINTRA), Cámara Nacional de Manufacturas Eléctricas (CANAME), Cámara Nacional de la Industria de la Construcción (CNIC), Cámara Nacional de Empresas de Consultoría (CNEC) and Sindicato Único de Trabajadores Electricistas de la República (SUTERM)	Nacional Financiera, S.N.C.	**a.** Electric energy consumers who are beneficiaries of the services rendered by the Trust fund. **b.** CFE, only for the materials that will form part of the public energy services infrastructure.
Mexicali Housing Thermal Isolation Trust (FIPATERM), created on October 19, 1990	CFE	Banco Nacional de Obras y Servicios Públicos, S.N.C.	CFE

As of December 31, 2019, 2018 and 2017, the Housing Thermal Isolation Program (FIPATERM) Trust has assets of $1,621,252, $1,532,366 and $1,487,051, and liabilities of $63,241, $56,188 and $70,634, respectively.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

b. Prepaid expenses

Those created for financing and covering expenses prior to the execution of projects which are subsequently recovered and charged to the entity that incurred in such expense to comply with the regulations applicable to the type of project.

Trust fund	Role of CFE			Type of project
	Trustor	Trust Beneficiary	Trustee	
CPTT prepaid expense management, created on August 11, 2003	CFE	CFE	Banco Nacional de Comercio Exterior, S.N.C.	Direct investment
Management and transfer of ownership 2030, created on September 30, 2000	CFE	**Primary beneficiary:** Contract winners **Second beneficiary**: CFE	Banobras, S.N.C.	Conditioned investment

As of December 31, 2019, 2018 and 2017 the Administration of Prior Expenses Trust has assets of $3,186,199, $3,533,406 and $3,763,171, and liabilities of $3,104,881 and $3,356,828, respectively.

The Administration and Transfer of Ownership Trust 2030 has assets of $473,795.

c. Work contract management

At the beginning of the '90s, the Federal Government implemented several off-budget schemes to continue investing in infrastructure projects. The schemes were designed under two modalities:

- Turnkey Projects (1990)
- Building, Leasing and Transferring Projects (1996)

Turnkey Projects. - Under this scheme, works were carried out for the construction of power generation plants and installation of transmission lines, through an irrevocable management and transfer of ownership trust, linked to a lease agreement. Under this modality, the trustee is responsible for the following:

Contracting credits, managing the trust property (assets), receiving the lease payments from CFE, and transferring the asset at no cost to CFE after the leases have been paid in an amount sufficient to pay the contracted credits.

CFE participates in the payment of the leases to the trustee, based on the credits contracted by the trust, instructing the trustee to pay the contractors receiving, in exchange, invoices approved by the construction area, payment of taxes and other charges, including trustee fees.

The trusts for managing and transferring ownership were carried out in accordance with the Guidelines for the performance of thermoelectric projects with off-budget funds, as well as with the Guidelines for the performance of transmission lines and substations with off-budget funds issued by the Ministry of Public Administration (formerly known as the Ministry of Comptrollership and Administrative Development).

The Trust shown below has completed its payment commitments; therefore, it is in process of termination by the General Counsel.

Trust fund	**Role of CFE**		**Trustee**
	Trustor	**Trust Beneficiary**	
Topolobampo II (Electrolyser, S. A. de C. V.), created on November 14, 1991	Bufete Industrial Construcciones, S. A. de C. V. and Electrolyser, S. A. de C. V., with respect to its contribution to the Trust	**Primary beneficiary:** Electrolyser, S. A. de C. V., with respect to its contribution to the Trust and **Second beneficiary:** CFE	Santander, S. A.

Building, Leasing and Transferring Projects ("CAT", Spanish acronym).- The transition stage to carry out the CAT trusts began in 1996, whereby the trustee manages the trust property (assets) and transfers it to CFE after the lease payments have been covered. Credits are contracted directly with a consortium that is a special purpose entity, for which there is an irrevocable management and transfer of ownership trust contract.

In these types of trusts, CFE participates in making the lease payments based on quarterly amortization tables presented by the consortiums in their bids. Most of these tables include forty quarterly payments.

The only project under this mode that has settled its financial obligations and is in the process of termination is the CC Samalayuca II project; therefore, it is in the process of being terminated by the Office of the General Counsel.

Trust fund	**Role of CFE**		**Trustee**
	Trustor	**Trust Beneficiary**	
C.T. Samalayuca II, created on May 2, 1996	Compañía Samalayuca II, S.A. de C.V.	**Primary beneficiary:** The foreign bank that is the common representative of the creditors; **Second beneficiary:** Compañía Samalayuca II, S.A. de C.V. **Third beneficiary:** CFE	Banco Nacional de México, S. A.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

As of December 31, 2019, 2018 and 2017, CFE has fixed assets of $21,995,856, $21,706,678 and liabilities of $144,871 and $684,644 as of December 31, 2018 and 2017, respectively, corresponding to the total annual costs of the aforementioned trusts.

Coal Terminal of the Thermoelectric Power Station Presidente Plutarco Elias Calles

Trust fund	Role of CFE		Trustee
	Trustor	**Trust Beneficiary**	
Coal Terminal of the Thermoelectric Power Station Presidente Plutarco Elias Calles (Petacalco) was created on November 22, 1996	Techint, S. A., Grupo Mexicano de Desarrollo, S.A. de C.V. and Techint Compagnia Tecnica Internazionale S.P.A.	**Primary beneficiary:** Carbonser, S. A. de C.V **Second beneficiary:** CFE	Banco Nacional de México, S. A. (Banamex)

The irrevocable management, guarantee, and transfer of ownership trust agreement number 968001 was entered into 1996 which, among other considerations, sets forth that the trustee will enter into a service contract with CFE.

Upon the entry into force of the coal management service contract between CFE and Banco Nacional de México, S. A. (Banamex) as trustee of the Petacalco Trust, comprised of Techint Compagnia Tecnica Internazionale S.P.A., Grupo Mexicano de Desarrollo, S. A. de C. V., and Techint, S. A. that was entered into on November 22, 1996, in accordance with clause 8.1, CFE will pay the invoice amounts related to the fixed charge for capacity.

Facility	Fixed charge for capacity for Jan-Dec 2018
Petacalco Coal	$120,711

d. Indirect participation trust funds

Additionally, CFE maintains an indirect relationship since it is not a Trustor, but it participates as a beneficiary in two guarantee and loan payment Trusts, created by Financial Institutions as Trustors and Trust Beneficiaries for the issue of securities linked to credits granted to CFE.

CFE is named as Second Beneficiary of the Trust, due to the specific possibility that it may acquire some of the certificates issued and it maintains representation in its Technical Committees in conformity with the contractual provisions. (See Note 11).

CFE is required to reimburse to the Trust in the terms of the Indemnity Contract that forms part of the Trust Contract, the expenses incurred by the Trust for the issue of securities and their management.

Trust fund	Role of CFE		Trustee
	Trustor	**Trust Beneficiary**	
Trust No. 232246 created on November 3, 2006	Banco Nacional de Mexico, S.A., a member entity of Grupo Financiero Banamex	**Primary beneficiary:** Each of the preferred holders of each issue. **Second beneficiary:** CFE	HSBC México, S.A., Grupo Financiero HSBC

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

Trust fund	Role of CFE		Trustee
	Trustor	Trust Beneficiary	
Trust No. 411 created on August 6, 2009	Banco Nacional de Mexico, S.A., a member entity of Grupo Financiero Banamex	**Primary beneficiary:** Each of the preferred holders of each issue. **Second beneficiary:** CFE	Banamex

Regarding Trust N° 194, created on May 3, 2004 by ING (México), S.A. de C.V. Casa de Bolsa, ING Grupo Financiero and Deutsche Securities S.A. de C.V. Casa de Bolsa, first and second Trustors, respectively, with the participation of CFE as Second Beneficiary, on January 10, 2018, the parties, CFE as Secondary Trustor and Acciones y Valores Banamex, S.A. de C.V., Casa de Bolsa, Member of the Banamex Financial Group, as alternate trustor of Bank of America, S.A., Institución de Banca Múltiple, alternate trustor of The Royal Bank of Scotland México, S.A., Institución de Banca Múltiple, formerly ABN Amro Bank (México), S.A., Institución de Banca Múltiple, alternate trustor of Bank of America México, S.A., Institución de Banca Múltiple, universal successor-in-title of Bankboston, S.A., Institución de Banca Múltiple y Banco Monex, S.A., Institución de Banca Múltiple, Monex Grupo Financiero as agent under the Management Agreement, (as assignee of ING Bank (México), S.A., Institución de Banca Múltiple, ING Grupo Financiero (currently Corporación General de Servicios Especializados, S.A., en Liquidación), entered into a Termination and Extinguishment Agreement of the Trust in view of the fact that the Preferred Stock Certificates issued were issued fully paid in and the purpose for which it was created was met. In the Termination and Extinguishment Agreement referred to above, the Trustee was instructed to transfer the remaining cash of the Trust Property to the Second Trust Beneficiary, as well as the ownership of credit rights, if any, in the Common Fund and, any remaining Trust Property, which occurred on October 4, 2018.

As of December 31, 2019, available funds in trust No. 232246 of $8,821.

2 Legal nature

2.1 In conformity with the Federal Public Administration Act, none of the trusts are considered Public Trusts with the status of an "entity", pursuant to the following:

a. In six of the Trusts, CFE is not a Trustor in their creation.

b. The four remaining trusts do not have an organic structure similar to the state-owned entities that comprise them as “entities” in terms of the Law.

2.2 The SHCP has maintained a record for purposes of the Federal Budget and Financial Responsibility Law, of 4 (four) of the Trusts, due to the allocation of federal funds or the contribution of land owned by CFE where the works will be carried out.

(Amounts expressed in thousands of Mexican pesos, unless explicitly indicated otherwise)

Registration of Trusts with SHCP		
No.	**Trusts**	**Record**
1	Mexicali Housing Thermal Isolation Trust (FIPATERM)	700018TOQ058
2	Prior Expense Trust	200318TOQ01345
3	Trust Management and Transfer of Ownership 2030	200318TOQ01050
4	Trust for Power Savings (FIDE)	700018TOQ149

Long-term auctions

In 2017, the Company participated as a buyer in the long-term auction announced by CENACE for the month of November 2017, acquiring through the auction a commitment to purchase energy of 539.8 (MW/year) for 15 years, purchase of energy of 5,003,133.78 (MWh/year) for 15 years and to purchase CELs of 5,422,143.18 for 20 years. On April 13, 2018, CFE entered into the agreement with the Chamber of Compensation (who acts as the counterparty).

23. Segment Information

Information regarding the operating segments

The information presented to the Board of Administration to obtain budget and investment approval and measure compliance with the business objectives set out by the Board is consolidated financial information and not for each operating activity of the Company.

Information by type of services

Income	**For the year ended December 31, 2019**	**For the year ended December 31, 2018**	**For the year ended December 31, 2017**
Industrial services	255,962,727	242,019,269	205,771,593
Domestic service	77,105,587	64,341,733	63,038,771
Commercial service	52,384,201	49,248,017	50,632,378
Services	14,850,451	14,673,174	22,397,891
Agricultural service	6,853,704	6,311,891	6,955,262
Total sales	407,156,670	376,594,084	348,795,895
Block for resale	430,026	964,853	
Total electricity supply revenue	407,586,696	377,558,937	348,795,895
Other programs			
Consumption in the process of being billed	3,203,156	(6,383,586)	8,899,082
Illegal uses	2,506,714	1,406,756	4,629,406
Measurement failure	738,565	2,262,148	1,156,938
Billing error	1,279,857	863,369	1,877,566
Total income obtained from other programs	7,728,292	(1,851,313)	16,562,992
Total revenue from the sale of electricity	**415,314,988**	**375,707,624**	**365,358,887**

24. Standards issued but not yet effective

A. Other standards

The Company does not expect the following amended standards and interpretations to have a significant impact on its financial statements:

- Amendments to References to Conceptual Framework in IFRS Standards.
- Definition of Material (Amendments to IAS 1 and IAS 8).
- Definition of a Business (Amendments to IFRS 3)
- IFRS 17 Insurance Contracts

25. Subsequent Events

On March 25, 2019, the Ministry of Energy issued the agreement amending the Terms for the Strict Legal Separation of Comisión Federal de Electricidad which were published in the Official Gazette on January 11, 2016.

As of the date of publication of this Agreement in the Official Gazette, CFE submitted to the Ministry of Energy its proposal for the reallocation of assets and power generation contracts to the EPS and Affiliated Entities that it considers best contribute to efficiency.

As part of this asset reorganization process, the Company conducted a study to determine the fair value of the plants that were involved in the reorganization. This analysis resulted in an impairment charge of $57,016,640 and an unrealized gain on revaluation of power plants of $84,480,710. These amounts were recognized in profit or loss and other comprehensive income in 2019. As a result, since January 1st, 2020, the EPS's have been operating with the new portfolio of assets stated at fair value. In 2020, the Company will continue with the transfer of the assets and liabilities related to this asset reallocation program.

COVID-19

On March 11, 2020, the World Health Organization declared a pandemic due to the global spread of the virus called SARS-COV-2, which originated in China at the end of 2019 and began to appear in Mexico in February 2020. Governments around the globe have been taking steps to contain the spread of the virus, including requiring the quarantine of their citizens, implementing social distancing measures, restricting travel, and declaring health emergencies. The spread of SARS-COV-2 has led to a downturn in the global economy and by extension, to a general reduction in the economic activity of most countries.

Despite the impact of SARS-COV-2 virus on individual countries and the global economy at large, the virus is not expected to have a significant impact on any technical or operational aspects of CFE, since throughout the pandemic the industry has continued to operate normally and has been declared an essential industry for Mexico. Against this backdrop, as it has stated in recent months, CFE is committed to guaranteeing the continued supply of electricity to all communities in the country.

The SARS-COV-2 health contingency could have more of an impact on the Company from an economic and financial standpoint.

The risks that the pandemic poses for CFE may be classified into three main types: a) economic-financial risks; b) operational risks, and c) labor risks. Management has estimated that the potential effects of all three types of risk vary qualitatively and in their degree of intensity, but it is important to note that the electricity sector is "defensive" with respect to other sectors of the economy. CFE has implemented several specific measures to mitigate the financial, operational and labor risks posed by the health crisis. An explanation of each of the three risks that management believes may have an impact on the Company is provided below.

a) Economic-financial risks

The economic-financial risks of the pandemic may be classified into two types based on their potential impact for the Company. The risks representing a negative potential impact are a.1) lower electricity consumption and reductions in sales of electricity, and a.2) variations in exchange rates. The risks representing a positive potential impact include: a.3) lower interest rates, and a.4) lower fuel prices.

a.1) Lower electricity consumption and reduction in sales of electricity

The measures that have been implemented to control the spread of the SARS-COV-2 virus in the country, including the self-isolation of the population, the suspension of non-essential activities, companies and industries, and the introduction of social distancing measures, have led to a slowdown in the country's economic activity, which in turn has led to a reduction in the consumption and sales of electricity across Mexico's industrial, commercial and service sectors. However, demand for electricity in the residential market is expected to grow as the large portion of the Mexican population that is forced to stay at home during the lock down will engage in additional activities at home, including professional and educational activities and entertainment. No significant reductions in electricity consumption in the agricultural sector is expected since agriculture is considered an essential activity. During the January-May 2020 period, CFE's electricity sales and revenue from the sale of electricity decreased by 3.0% and 3.7%, respectively. As the expected economic recovery takes shape during the second half of 2020, the volume of electricity consumed and CFE's sales could see an annualized reduction of between 0.0% and 3.0%.

a.2) Variations in exchange rates

To mitigate the impact of the measures implemented to contain the spread of the SARS-COV-2 virus by different countries, global governments have introduced a series of measures related to fiscal and monetary policy. These changes in fiscal and monetary policy have led to a high degree of volatility in currency prices and in the strength of the Mexican peso in particular.

During the period in which the spread of the virus spiked, on a year-to date basis the Mexican peso lost 33% of its value against the U.S. dollar. The Mexican peso has rebounded over the last few months and as such, the year-over-year variance in the exchange rate at June 30, 2020 is 21.9%. Once the effects of the lock down have taken full effect and the country begins to transition towards economic and social normalcy, the Mexican peso is expected to recover and perhaps return to levels seen prior to the health crisis.

CFE has a hedging in place to mitigate the foreign exchange risk associated with its debt contracted in foreign currencies. As of December 31, 2019, the percentage of CFE's debt balance exposed to foreign exchange risk was just 20.7%. The Company's hedging strategy proposed for fiscal year 2020 aims to reduce this exposure to 15%. CFE has other commitments and obligations in foreign currencies (fuel payments and plant and gas pipeline lease payments, among others), which is where the Company is most exposed to foreign exchange risks.

a.3) Reduction in interest rates

In response to the contraction of economic activity in Mexico and around the world, the central banks of the largest developed and emerging economies have initiated a cycle of reducing their reference interest rates as a measure to stimulate growth in consumer consumption and investment in their countries.
These measures have pushed down interest rates in financial markets in the short-, medium- and long-term. This reduction in interest rates is expected to lead to a reduction in the cost of any new debt or refinancing that CFE may seek over the next few months to fund its investment program or to help it achieve its strategic and institutional goals.

a.4) Lower fuel prices

The reduced mobility of the population resulting from less time spent engaging in all types of activities, including recreational, professional, cultural, educational and medical activities, among others, within Mexico's cities and across the country's many localities and regions and internationally as well, together with the temporary suspension of all non-essential activities, has caused a drop in the demand for fuel to levels never before seen. The reduction in fuel prices is also a result of the fact that current fuel supply volumes are equal to the supply volumes in the market prior to the health crisis. Energy prices are expected to continue to decline during this adjustment period as the demand for fuel and total fuel supply level out.

The reduction in fuel consumption brought on by the health contingency has put downward pressure on oil and gas prices globally, leading to historic lows in recent years. Natural gas is CFE's main production input. As of December 31, 2019, CFE purchased 34.596 billion cubic meters of natural gas in the domestic and international gas markets. These purchases represent the Company's largest expenditure. If this downward trend in fuel prices continues, CFE may need to spend considerably less on its natural gas purchases, leading to significant savings for the Company.

b) Operating risks

Since power generation and supply is deemed an essential activity for Mexico, throughout the health crisis CFE has continued to operate across all its processes, from power generation to power distribution to power supply to end users. In essence, CFE has continued to produce electricity for the entire country 24 per day, 7 days a week.

CFE has achieved this continued capacity to operate by implementing the actions set forth in the "Health Safety Protocol for the Reincorporation of Activities in the Work Centers of Comisión Federal de Electricidad". These measures include:

- Communication of personal protection and social distancing measures that should be followed inside CFE's facilities.
- The installation of access checkpoints where employees have their temperatures taken before entering the facilities and are checked for symptoms of COVID-19.
- The use of sanitizing floor mats.
- Actions to reduce movement of staff throughout the workday and to encourage social distancing in common areas.
- Encouraging the use of digital communication to reduce face-to-face work meetings.
- Providing personal protection equipment (masks, face shields and gloves) to cleaning staff.
- Mandatory mask rule for all personnel inside the facilities.
- Staggered work schedules to reduce the number of workers entering facilities at any one time.
- Periodic cleaning of property and transportation equipment.
- Demarcation of work areas.
- The installation of acrylic shields in customer service modules.
- Restricting the number of people allowed on elevators at any one time and barring employees who work on the first two floors of their buildings from using the elevator, except for individuals who are physically unable to use the stairs.

c) Occupational hazards

The Company has introduced a number actions and measures designed to reduce the spread of the SARS virus in its different work centers throughout the country, to promote social distancing on the job, whether this be in the form of face-to-face work, remote work or a mix of the two, with workers reporting to their work centers on a sporadic basis and with older or physically vulnerable employees reporting to their offices or work centers only when strictly required in order to reduce the number of infections of COVID-19.

For this purpose, CFE's senior management issued the "Health Safety Protocol for the Reincorporation of Activities in the Work Centers of the Federal Electricity Commission", whose aim is to ensure that all of the Company's areas take steps to maintain and strengthen the preventive and protection measures in place.

Additionally, the Company held a video conference with approximately 3,000 employees and members of management of CFE's subsidiary companies in order to explain to these individuals the preventive measures in place and how the Ministry of Health's traffic light monitoring system will work.

CFE has approved an investment of $57 million for purchases of cleaning materials and personal protection equipment for its personnel.

As of June 22, 2020, CFE had a total of 674 employees infected with COVID-19. This total number of infected individuals represents just 0.8% of CFE's total headcount. Out of the total population of suspected COVID-19 cases, eight individuals are currently hospitalized and three are in intensive care, while the remainder are recovering at home. Unfortunately, 32 of these infected individuals have died from the virus.

26. Issue of the Consolidated Financial Information

The consolidated financial statements and notes thereto were approved by Management on June 30, 2020. The financial information will be approved by the Board of Directors at a subsequent date. The Board of Directors has the power to amend the accompanying consolidated financial information. Subsequent events were considered through June 30, 2020.