



**Credit
Rating
Agency**

An NRSRO Rating*

Petróleos Mexicanos
State-owned Production Company

HR AAA / HR BBB+ (G)

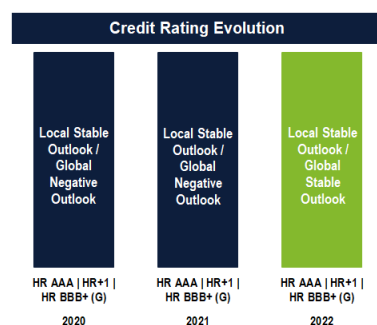
HR+1

Corporate
April 28, 2022

Rating

Pemex LT local scale	HR AAA
Pemex ST local scale	HR+1
Pemex LT global scale	HR BBB+ (G)
Local scale issues	HR AAA
Global scale issues	HR BBB+ (G)

Local Outlook	Stable
Global Outlook	Stable



HR Ratings affirmed its HR AAA rating with Stable Outlook for Pemex and six issues and HR+1 rating for Pemex. It also affirmed the HR BBB+ (G) rating and modified the Outlook from Negative to Stable for Pemex and 43 issues.

The affirmation of the ratings and modification of the Global Outlook for Pemex (and/or the Company) is based on the rating action taken on April 28, 2022, in which Mexico's sovereign rating was affirmed on a local and global scale and the Global Outlook was modified from Negative to Stable. The above is due to the de facto sovereign status we consider the Company's debt to have due to the support shown by the Federal Government through contributions for debt service payments, capital investments and tax support. Pemex's relevance as a source of revenue for the country is also considered. Pemex's revenue increased in 2021, driven mainly by the global recovery in oil prices and, to a lesser extent, by an increase in sales volumes, as well as a 2.3% decrease in net debt.

It should be noted that Pemex's current rating and outlook depend on Mexico's sovereign rating; therefore, any change in the latter will impact the Company's rating. It is also important to mention that our scenarios do not consider the consolidation of the Deer Park refinery following its acquisition, which was completed on January 20, 2022. The main assumptions and results are as follows:

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Outstanding Issues Backed by Pemex Rating				
Issue	Type of Asset	Type of Rating	Rating	Outlook
PEMEX 12U	Bond	Local	HR AAA	Stable
PEMEX 13-2	Bond	Local	HR AAA	Stable
PEMEX 14U	Bond	Local	HR AAA	Stable
PEMEX 14-2	Bond	Local	HR AAA	Stable
PEMEX 15U	Bond	Local	HR AAA	Stable
PEMEX 19	Bond	Local	HR AAA	Stable
PEMEX 14-2 (G)	Bond	Global	HR BBB+ (G)	Stable
PEMEX 15U (G)	Bond	Global	HR BBB+ (G)	Stable
2.500% Notes 2021	Secured Notes	Global	HR BBB+ (G)	Stable
3.750% Notes 2024	Secured Notes	Global	HR BBB+ (G)	Stable
3.750% Notes 2025	Secured Notes	Global	HR BBB+ (G)	Stable
6.490% Notes 2027	Secured Notes	Global	HR BBB+ (G)	Stable
6.500% Notes 2027	Secured Notes	Global	HR BBB+ (G)	Stable
4.875% Notes 2028	Secured Notes	Global	HR BBB+ (G)	Stable
5.350% Notes 2028	Secured Notes	Global	HR BBB+ (G)	Stable
6.500% Notes 2029	Secured Notes	Global	HR BBB+ (G)	Stable
6.840% Notes 2030	Secured Notes	Global	HR BBB+ (G)	Stable
6.750% Notes 2047	Secured Notes	Global	HR BBB+ (G)	Stable
6.350% Notes 2048	Secured Notes	Global	HR BBB+ (G)	Stable
7.690% Notes 2050	Secured Notes	Global	HR BBB+ (G)	Stable
Notes 2022	Secured Notes	Global	HR BBB+ (G)	Stable
Notes 2023	Secured Notes	Global	HR BBB+ (G)	Stable
Notes 2025	Secured Notes	Global	HR BBB+ (G)	Stable
Notes 2029	Secured Notes	Global	HR BBB+ (G)	Stable
PEMEX 2.250M EUR	Secured Notes	Global	HR BBB+ (G)	Stable
LIBOR+365 bps Notes 2022	Secured Notes	Global	HR BBB+ (G)	Stable
5.500% Notes 2021	Secured Notes	Global	HR BBB+ (G)	Stable
6.375% Notes 2021	Secured Notes	Global	HR BBB+ (G)	Stable
4.875% Notes 2022	Secured Notes	Global	HR BBB+ (G)	Stable
8.625% Notes 2022	Secured Notes	Global	HR BBB+ (G)	Stable
5.375% Notes 2022	Secured Notes	Global	HR BBB+ (G)	Stable
3.500% Notes 2023	Secured Notes	Global	HR BBB+ (G)	Stable
4.625% Notes 2023	Secured Notes	Global	HR BBB+ (G)	Stable
8.625% Notes 2023	Secured Notes	Global	HR BBB+ (G)	Stable
4.875% Notes 2024	Secured Notes	Global	HR BBB+ (G)	Stable
9.500% Notes 2027	Secured Notes	Global	HR BBB+ (G)	Stable
4.250% Notes 2025	Secured Notes	Global	HR BBB+ (G)	Stable
4.500% Notes 2026	Secured Notes	Global	HR BBB+ (G)	Stable
5.950% Notes 2031	Secured Notes	Global	HR BBB+ (G)	Stable
6.875% Notes 2026	Secured Notes	Global	HR BBB+ (G)	Stable
6.625% Notes 2035	Secured Notes	Global	HR BBB+ (G)	Stable
6.625% Notes 2038	Secured Notes	Global	HR BBB+ (G)	Stable
6.500% Notes 2041	Secured Notes	Global	HR BBB+ (G)	Stable
5.500% Notes 2044	Secured Notes	Global	HR BBB+ (G)	Stable
6.375% Notes 2045	Secured Notes	Global	HR BBB+ (G)	Stable
5.625% Notes 2046	Secured Notes	Global	HR BBB+ (G)	Stable
6.950% Notes 2060	Secured Notes	Global	HR BBB+ (G)	Stable
6.625% Notes PERP	Secured Notes	Global	HR BBB+ (G)	Stable
6.875% Notes 2025	Secured Notes	Global	HR BBB+ (G)	Stable

Source: HR Ratings based on information published by Pemex.

Main Factors Considered

In accordance with the applicable methodology, HR Ratings conducted an analysis on the results reported by the Company and the expected scenarios for the projected periods from 2021 to 2024, under base and stress estimates. This under the evaluation of our main analysis metrics related to the strength of capacity in the payment of debt financial obligations; below is a comparison between the main assumptions and expected results for both scenarios.

Assumptions and Results¹

	Reported				Baseline Scenario			Stress Scenario		
	2018	2019	2020	2021	2022P	2023P	2024P	2022P	2023P	2024P
Revenue	1,681	1,402	954	1,497	1,811	1,608	1,628	1,424	1,261	1,278
EBITDA	498	272	100	393	342	398	418	167	232	251
Gross Margin	38.9%	29.9%	26.7%	36.8%	27.7%	35.2%	36.5%	22.8%	31.2%	32.7%
EBITDA Margin	29.6%	19.4%	10.5%	26.2%	18.9%	24.8%	25.7%	11.8%	18.4%	19.7%
Free Cash Flow* (FCF)	334	332	30	220	209	245	282	76	135	177
Debt Service	241	295	359	509	597	335	386	620	405	471
Gross Debt	2,082	1,983	2,259	2,244	2,194	2,181	2,173	2,351	2,481	2,658
Net Debt (ND)	2,000	1,923	2,219	2,167	2,114	2,081	2,035	2,279	2,439	2,584
DSCR **	1.4x	1.1x	0.1x	0.4x	0.3x	0.7x	0.7x	0.1x	0.3x	0.4x
DSCR with Initial Cash**	1.8x	1.4x	0.3x	0.5x	0.5x	1.0x	1.0x	0.2x	0.5x	0.5x
Years of Payment (ND / FCF)	6.0	5.8	20.0	9.9	10.1	8.5	7.2	30.1	18.0	14.6
MALC***	0.4x	0.3x	0.3x	0.4x	0.4x	0.4x	0.4x	0.4x	0.3x	0.3x

Source: HR Rating's forecasts based on Company reports of its results. Projections beginning on 1Q22.

*Free Cash Flow = Net Cash Flow from Operating Activities - Maintenance CAPEX (Depreciation) - Amortization of Leases - Interests on Leases + Effect of change in cash value from FX + Dividends Collected.

** Debt Service Coverage Ratio = FCF / Net Debt Service (Net Interest Payments + Net Debt Amortizations).

***Marketable Assets to Liabilities

Historical Performance vs. Forecasting

- **Debt Structure and Maturity Profile.** At the end of 2021, Pemex's net debt was P\$2,167mm (-2.3% vs. P\$2,219mm in 2020), in line with the objective established in the Business Plan (2021-2025) of maintaining net debt close to zero in real terms. Although the Company maintained its strategy of improving its maturity profile, short-term financing drawdowns was reflected in an average debt maturity of 10.2 years (vs. 10.8 years in 2020).
- **Growth in Total Revenue.** The 56.9% increase in total sales in 2021 is mainly due to higher crude oil prices worldwide. The average annual price of Mexican Blend closed at US\$65.3 per barrel in 2021 (+82.3% YoY and +15% vs. our projections). This increase reflects the global recovery of economic activity, as well as the Organization of the Petroleum Exporting Countries' (OPEC+) efforts to gradually restructure supply.
- **Crude Oil Production.** Production of crude oil and condensates reached 1.736 mmbd (+2.9% vs. 1.686 mmbd in 2020). This increase is due to the addition of wells from new fields, mainly in the Marina Sur and Norte regions, and increased activity at the Ek-Balam and Zaap fields in the Marina Noroeste Region.
- **Increase in EBITDA.** During 2021, EBITDA reached P\$393mm (+292.3% vs. P\$100mm in 2020). This growth is related to increases in crude oil prices around the world following the normalization of industrial activity. This also reflects the income obtained from the profitability strategy implemented by Pemex.
- **Increased Adjusted Free Cash Flow (AFCF) Generation.** AFCF generation increased in 2021, closing at P\$220mm (vs. P\$30mm in 2020), driven by the reported increase in EBITDA due to greater absorption of costs and expenses, which offset increased need for working capital due to growth in domestic sales, as well as a recovery in crude oil export activity.

Future Assumptions

- **Federal Government Support.** The rating is based on the assumption that the Federal Government will continue to support the Company in 2022, through equity contributions in 2022 (financial and operational support) related to investments for the Dos Bocas Refinery as well as Pemex's debt service payment and tax incentives to reduce the tax burden through additional modifications to the tax structure.
- **Crude Oil Production.** We expect sustained growth in production as a result of the Company's exploration efforts aimed at improving reserves. We estimate an average annual production of 1.778 mmbd for 2022-2024 (+5.4% vs. 1.687 mmbd in 2021).
- **Mexican Export Blend Prices.** For 2022, we estimate an average price of US\$90.1 (+37.9% vs. US\$65.31pb in 2021), in line with the expected performance of international benchmarks such as West Texas Intermediate (WTI). The base scenario for the following years includes an average price for the Mexican blend of US\$79.65pb for 2022-2024.
- **Debt Levels.** As part of the support from the Federal Government, we expect Pemex to be able to maintain zero net debt in accordance with its business plan.
- **National Refining System (SNR, acronym in Spanish).** Our base scenario includes a material improvement in the use of the National Refining System's installed capacity in line with Pemex's Business Plan (2021-2025). The three main factors supporting the improvement are: a) oil production recovery, b) the start of operations at the Dos Bocas refinery in 2022, and c) maintenance projects and upgrades in the SNR that would bring installed capacity utilization from 43.4% in 2021 to ~48.8% in 2022.

Factors that Could Affect the Rating

- **Sovereign Debt.** Any change, positive or negative, in Mexico's sovereign rating and outlook would be directly reflected in Pemex's global rating. This is because HR Ratings considers Pemex's debt to have a de facto guarantee from the Federal Government.
- **Change in perception of de facto sovereign status.** If we see a change in the relationship between Pemex and the Federal Government that shows that Pemex's debt is no longer guaranteed by the Federal Government, the Company's rating could be modified.

Appendix – Baseline Scenario

Pemex (Base): Balance Sheet in Nominal Pesos (m)							
	At Close						
	2018*	2019*	2020*	2021	2022P	2023P	2024P
TOTAL ASSETS	2,075,197	1,918,448	1,928,488	2,105,838	2,290,660	2,369,960	2,443,727
Short-Term Assets	393,110	340,552	329,860	456,903	522,631	576,865	602,265
Cash and Equivalents	81,912	60,622	39,990	76,496	79,974	100,096	137,505
Accounts Receivable from Clients	87,741	89,264	68,382	104,144	121,819	135,865	128,088
Other Accounts Receivable	79,399	91,242	139,442	173,815	183,032	192,737	202,956
Inventories	82,023	82,672	52,606	86,387	122,378	133,347	119,480
ST Promissory Notes from the Federal Government	38,154	4,910	0	0	0	0	0
Otros Current Assets**	23,881	11,843	29,440	16,060	15,428	14,820	14,236
Long-Term Assets	1,682,087	1,577,896	1,598,628	1,648,935	1,768,029	1,793,095	1,841,462
Investments in Non-Consol. Subs.	16,842	14,875	12,015	8,936	6,292	4,045	2,135
Plant, Property & Equipment	1,402,486	1,211,750	1,276,130	1,327,860	1,433,757	1,446,303	1,481,540
Licences and Rights of Way	3,941	3,466	0	1,377	1,377	1,377	1,377
Deferred Taxes	122,785	136,167	108,529	86,154	97,020	106,667	116,436
Other LT Assets	136,034	211,638	201,954	224,608	229,583	234,703	239,974
Wells not assigned to a reserve	9,779	11,118	22,776	18,639	19,319	20,024	20,755
LT Promissory Notes from the Federal Government	119,829	121,625	112,400	0	0	0	0
Advance Payments and Other Assets	6,426	8,077	7,584	151,755	156,049	160,464	165,005
Right-Of-Use Assets	0	70,818	59,195	54,215	54,215	54,215	54,215
TOTAL LIABILITIES	3,534,603	3,915,656	4,333,215	4,206,313	4,287,574	4,391,578	4,485,700
Short-Term Liabilities	447,776	552,204	772,410	911,937	735,619	848,575	823,692
Short-Term Debt	191,796	244,924	391,097	486,333	217,828	267,683	207,727
Suppliers	149,843	208,034	281,978	265,831	356,091	417,238	450,329
Taxes Payable	65,325	50,693	51,200	106,227	107,508	108,804	110,115
Other Short-Term Liabilities	40,813	48,552	48,134	53,546	54,191	54,850	55,521
Other Accounts Payable	24,918	26,055	30,709	32,019	32,664	33,322	33,994
Derivative Instruments	15,895	16,650	9,318	13,636	13,636	13,636	13,636
ST Lease Liabilities	0	5,847	8,107	7,891	7,891	7,891	7,891
Long-Term Liabilities	3,086,826	3,363,453	3,560,805	3,294,375	3,551,956	3,543,003	3,662,008
Long-Term Debt	1,890,490	1,738,250	1,867,630	1,757,412	1,976,132	1,913,550	1,964,825
Deferred Taxes	4,512	3,677	3,412	3,030	3,030	3,030	3,030
Other LT Liabilities	1,191,824	1,621,526	1,689,763	1,533,934	1,572,794	1,626,424	1,694,154
LT Lease Liabilities	0	62,302	55,077	51,384	51,384	51,384	51,384
Provision for Sundry Loans***	111,282	102,409	99,517	98,482	96,916	95,375	93,858
Reserve for Employee Benefits and Provisions	1,080,542	1,456,815	1,535,168	1,384,067	1,424,494	1,479,665	1,548,912
EQUITY	(1,459,405)	(1,997,208)	(2,404,727)	(2,100,475)	(1,996,914)	(2,021,618)	(2,041,973)
Non-controlling Interest	477	(142)	370	173	(24)	(214)	(400)
Contributed Capital, Cumulative Earnings & Other	523	480	575	376	173	(24)	(214)
Current Earnings	(45)	(622)	(205)	(203)	(197)	(191)	(185)
Majority Equity	(1,459,883)	(1,997,067)	(2,405,097)	(2,100,648)	(1,996,891)	(2,021,404)	(2,041,573)
Common Stock	188,335	188,335	188,142	503,725	739,969	739,969	739,969
Labor Liability Promissory Notes	185,440	185,440	185,440	185,440	185,440	185,440	185,440
Paid-in Capital	26,500	148,631	195,080	195,852	195,852	195,852	195,852
Cumulative Earnings	(1,679,783)	(2,172,183)	(2,464,912)	(2,761,504)	(2,985,664)	(3,118,152)	(3,142,664)
Current Earnings	(180,374)	(347,289)	(508,847)	(224,160)	(132,487)	(24,513)	(20,169)
Debt	2,082,286	1,983,174	2,258,727	2,243,745	2,193,960	2,181,233	2,172,552
Net Debt	2,000,374	1,922,552	2,218,738	2,167,249	2,113,986	2,081,136	2,035,047
Account Receivables days	22	23	24	23	24	24	25
Inventory days	24	25	27	31	28	31	30
Suppliers days	43	49	96	97	74	89	94

Source: HR Ratings' forecasts based on the Company's reported results. Projections beginning on 1Q22.

* Financial Statements Audited by BDO and KPMG since 2018, in compliance with IFRS.

**Mainly derivatives, but also includes assets held by PEMEX and to be distributed in the various rounds.

***Provision for plugging expenses, environmental protection and ongoing lawsuits.

Pemex (Base): Income Statement in Nominal Pesos (m)						
	Calendar Year					
	2019*	2020*	2021	2022P	2023P	2024P
Net Sales	1,401,971	953,662	1,496,785	1,811,084	1,607,779	1,628,109
Domestic	807,020	503,712	762,115	987,836	896,683	927,374
Exports	585,842	445,234	729,698	818,027	705,613	694,979
Revenue from Services	9,109	4,715	4,973	5,221	5,482	5,756
Cash COGS	983,134	699,320	946,136	1,309,124	1,041,453	1,033,634
Gross income bef. Depreciation	418,838	254,342	550,649	501,960	566,326	594,476
Operating expenses	147,295	154,226	157,904	160,143	168,026	176,476
EBITDA	271,542	100,115	392,745	341,816	398,300	418,000
Loss (Reversal) on Impairment of Properties	97,082	36,354	(5,478)	26,786	27,590	28,418
Depreciation & Amortization	145,159	137,399	139,148	151,736	158,766	161,280
Operating income (loss) before other income	29,301	(73,637)	259,076	163,294	211,944	228,302
Other Income (Costs)	7,729	10,574	16,509	161,096	165,595	170,226
Operating income (loss) after other income	37,030	(63,063)	275,585	324,390	377,539	398,528
Interest Income	24,484	16,742	29,376	34,430	31,109	32,285
Other Financial Income	16,231	17,096	7,606	0	0	0
Interest Expense	132,861	161,765	145,803	145,420	148,449	150,467
Other Financial Expense	34,743	0	32,830	12,200	12,200	12,200
Net Financial Income	(126,890)	(127,927)	(141,650)	(123,190)	(129,540)	(130,383)
Foreign exchange net result	86,930	(128,949)	(45,580)	(59,577)	(29,289)	(42,373)
Integral Financing Result	(39,959)	(256,876)	(187,231)	(182,767)	(158,829)	(172,756)
Earnings after Integral Financial Result	(2,930)	(319,939)	88,354	141,622	218,710	225,772
Income from non-consolidated subsidiaries	(1,158)	(3,541)	(3,110)	(2,644)	(2,247)	(1,910)
Earnings before Taxes and duties	(4,088)	(323,480)	85,244	138,978	216,463	223,862
Taxes and duties	343,823	185,572	309,607	271,663	241,167	244,216
Current Taxes	374,487	154,609	310,382	282,529	250,814	253,985
Deferred Taxes	(30,664)	30,963	(775)	(10,867)	(9,647)	(9,769)
Net Income (loss)	(347,911)	(509,052)	(224,363)	(132,684)	(24,704)	(20,355)
Non-controlling interest	(622)	(205)	(203)	(197)	(191)	(185)
Controlling Interest	(347,289)	(508,847)	(224,160)	(132,487)	(24,513)	(20,169)
Last Twelve Months Figures						
Change in Sales (%)	-16.6%	-32.0%	57.0%	21.0%	-11.2%	1.3%
Gross Margin (%)	29.9%	26.7%	36.8%	27.7%	35.2%	36.5%
EBITDA Margin (%)	19.4%	10.5%	26.2%	18.9%	24.8%	25.7%
Current Taxes to Pre-Tax Income (%)	-8411.4%	-57.4%	363.2%	195.5%	111.4%	109.1%
Net Sales to Plant, Prop. & Equip.	1.2	0.7	1.1	1.3	1.1	1.3
ROCE (%)	2.2%	-6.3%	21.3%	12.2%	15.4%	16.5%
Cost of Debt	6.6%	6.9%	6.4%	6.6%	6.7%	6.9%
Return on Financial Assets	15.8%	14.4%	21.3%	16.1%	16.5%	16.6%

Source: HR Ratings' forecasts based on the Company's reported results. Projections beginning on 1Q22.

* Financial Statements Audited by BDO and KPMG since 2018, in compliance with IFRS.

EBITDA Analysis	2019*	2020*	2021	2022P	2023P	2024P
Sales adjusted with IEPS	1,401,971	953,662	1,496,785	1,811,084	1,607,779	1,628,109
EBITDA (2)	271,542	100,115	392,745	341,816	398,300	418,000
Net cost of employee benefits (pensions)	116,177	128,809	140,215	144,422	148,755	153,217
Leases in Depreciation and Interest (IFRS 16)	29,571	29,278	27,990	27,990	27,990	27,990
Adjusted EBITDA (4)	387,719	199,646	504,970	458,248	519,064	543,227
Loss (Reversal) on Impairment of Properties	97,082	36,354	(5,478)	26,786	27,590	28,418
Adjusted EBITDA with Impairment in Properties	290,637	163,292	510,449	431,461	491,474	514,809
Adjusted EBITDA Margin	27.7%	20.9%	33.7%	25.3%	32.3%	33.4%

Source: HR Ratings' forecasts based on the Company's reported results. Projections beginning on 1Q21.

* Financial Statements Audited by BDO and KPMG since 2018, in compliance with IFRS.

(1) As Pemex does not provide a depreciation and amortization split between costs and expenses in its income statements we have allocated a portion to both costs of sales and operating expenses so as to present these accounts on a cash basis.

(2) Includes an adjustment related to an extraordinary recorded cost due to impairment of fixed assets as a result of the steep decline in crude oil prices & the economic condition of Pemex's hydrocarbon reserves.

(3) Includes gain on discount rate of plugging of wells.



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State-owned Production Company

HR+1

Corporate
April 28, 2022

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Pemex (Base): Cash Flow in Nominal Pesos(m)							
	Calendar Year						
	2018*	2019*	2020*	2021	2022P	2023P	2024P
OPERATING ACTIVITIES							
Earnings (Loss) before Taxes	281,158	(4,088)	(323,480)	85,244	138,978	216,463	223,862
Depreciation & Amortization	156,025	145,160	137,340	139,235	151,736	158,766	161,280
Profit (loss) from sale of fixed asset	(701)	0	0	0	0	0	0
Impairment of properties, plant and equipment	(21,419)	97,082	36,354	(5,478)	26,786	27,590	28,418
Income from non-consolidated subsidiaries and affiliates	(1,527)	1,158	3,541	3,110	2,644	2,247	1,910
Interest Income	(31,557)	(24,484)	(16,742)	(29,376)	(34,430)	(31,109)	(32,285)
Other Investment activity related charges	15,854	73,887	23,236	16,044	0	0	0
Total Investment Related Charges	116,675	292,803	183,728	123,534	146,736	157,494	159,323
Interest expense	120,727	132,861	161,765	145,803	145,420	148,449	150,467
Loss (Gain) from foreign exchange fluctuations	(19,762)	(78,245)	137,022	44,196	59,577	29,289	42,373
Amortization of premiums, discounts, profits and debt issuance expenses	5,880	11,641	0	17,792	12,200	12,200	12,200
Total Charges related to Financial Activities	106,845	66,257	298,787	207,791	217,198	189,938	205,041
Cash Flow from P&L before Taxes	504,679	354,973	159,036	416,569	502,912	563,895	588,226
Decrease (Increase) in Accounts Receivable	26,746	(1,523)	20,881	(35,761)	(17,676)	(14,046)	7,777
Decrease (Increase) in Inventories	(18,164)	(650)	17,010	(7,660)	(35,992)	(10,969)	13,867
Decr. (Incr.) in Other Assets	(22,246)	(10,625)	(63,019)	(5,639)	(13,557)	(14,217)	(14,907)
Increase (Decrease) in Suppliers	9,887	46,561	23,030	(20,345)	90,260	61,147	33,090
Increase (Decrease) in Other Liabilities	47,655	61,167	66,047	69,046	40,786	55,584	69,713
Net total change in working capital	43,878	94,930	63,950	(360)	63,822	77,498	109,541
Taxes on earnings paid or returned	(432,546)	(372,673)	(157,691)	(263,358)	(282,529)	(250,814)	(253,985)
Cash flow generated by operations	(388,667)	(277,743)	(93,742)	(263,718)	(218,707)	(173,315)	(144,444)
Net cash flow from operating activities	116,012	77,230	65,294	152,851	284,205	390,580	443,781
INVESTING ACTIVITIES							
Net investment in Plant & Equipment	(94,004)	(109,654)	(114,977)	(217,093)	(284,420)	(198,901)	(224,935)
Investment in Intangible Assets	(14,855)	(17,220)	(23,641)	(25,534)	0	0	0
Business Disposal	4,078	0	0	0	0	0	0
Interest Income	31,557	24,484	16,742	20,084	34,430	31,109	32,285
Other Assets	(2,086)	(918)	(19,264)	(38,823)	0	0	0
Net cash flow from investing activities	(75,309)	(103,308)	(141,140)	(261,367)	(249,989)	(167,793)	(192,651)
Cash needs related to financing activities	40,703	(26,078)	(75,846)	(108,517)	34,216	222,787	251,131
FINANCING ACTIVITIES							
Loans obtained from financial institutions	899,769	1,167,835	1,288,130	1,652,152	478,878	175,812	216,629
Amortization of loans	(841,033)	(1,185,042)	(1,151,962)	(1,707,582)	(588,241)	(217,828)	(267,683)
Interest paid	(115,289)	(127,945)	(130,989)	(138,278)	(145,420)	(148,449)	(150,467)
Interest on Leases	0	(10,709)	(10,011)	(11,210)	(12,200)	(12,200)	(12,200)
Third party Financing	(56,554)	(155,862)	(4,832)	(204,919)	(266,983)	(202,665)	(213,722)
Increase (decrease) in equity	0	160,836	52,057	339,269	236,245	0	0
Own Financing	0	160,836	52,057	339,269	236,245	0	0
Net cash flow from financing activities	(56,554)	4,974	47,225	134,351	(30,738)	(202,665)	(213,722)
Net Increase (decrease) in cash and cash equivalents	(15,851)	(21,104)	(28,621)	25,834	3,478	20,122	37,409
Effect of change in cash value from FX	(88)	(186)	7,989	10,672	0	0	0
Cash and cash equiv. at the beginning of the period	97,852	81,912	60,622	39,990	76,496	79,974	100,096
Cash and cash equivalents at the end of the period	81,912	60,622	39,990	76,496	79,974	100,096	137,505
<i>Last Twelve Months</i>							
Maintenance CAPEX	(94,004)	(109,654)	(114,977)	(217,093)	(225,777)	(234,808)	(244,201)
Special Adjustments	311,951	375,520	81,894	284,430	162,316	100,960	94,545
Free Cash Flow	333,871	332,200	30,189	219,649	208,543	244,531	281,925
Total Debt Amortizations	841,033	1,185,042	1,151,962	1,707,582	588,241	217,828	267,683
Voluntary pre-payments and automatic credit lines	(683,824)	(993,247)	(907,038)	(1,316,484)	(101,908)	0	0
Net Debt Amortizations	157,209	191,796	244,924	391,097	486,333	217,828	267,683
Net Interest Pmts.	83,732	103,461	114,247	118,194	110,990	117,340	118,183
Net Debt Service	240,942	295,257	359,171	509,292	597,323	335,168	385,865
Debt Service Coverage Ratio (DSCR)	1.4	1.1	0.1	0.4	0.3	0.7	0.7
Cash and Equivalents at Beginning of Period	97,852	81,912	60,622	39,990	76,496	79,974	100,096
DSCR with cash	1.8	1.4	0.3	0.5	0.5	1.0	1.0
Net Debt to Free Cash Flow	6.0	5.8	73.5	9.9	10.1	8.5	7.2
Net Debt to EBITDA	4.0	7.1	22.2	5.5	6.2	5.2	4.9

Source: HR Ratings' forecasts based on the Company's reported results. Projections beginning on 1Q22.

* Financial Statements Audited by BDO and KPMG since 2018, in compliance with IFRS.

Adjusted Free Cash Flow	2018*	2019*	2020*	2021	2022P	2023P	2024P
Net Cash Flows from Operating Activities	116,012	77,230	65,294	152,851	284,205	390,580	443,781
Income Taxes Paid or Refunded	432,546	372,673	157,691	263,358	282,529	250,814	253,985
Difference in Changes in Cash and Cash Equivalents	(88)	(186)	7,989	10,672	0	0	0
Lease Liabilities	0	(10,709)	(10,011)	(11,210)	(12,200)	(12,200)	(12,200)
Maintenance Capex	(94,004)	(109,654)	(114,977)	(217,093)	(225,777)	(234,808)	(244,201)
Adjusted Cash Flow Before Taxes	454,465	329,354	105,987	198,577	328,757	394,385	441,366
Taxes	(120,594)	2,846	(75,798)	21,071	(120,214)	(149,854)	(159,440)
Adjusted Free Cash Flow (AFCF)	333,871	332,200	30,189	219,649	208,543	244,531	281,925

Appendix – Stress Scenario

Pemex (Stress): Balance Sheet in Nominal Pesos (m)

	At Close						
	2018*	2019*	2020*	2021	2022P	2023P	2024P
TOTAL ASSETS	2,075,197	1,918,448	1,928,488	2,105,838	2,232,166	2,206,567	2,299,802
Short-Term Assets	393,110	340,552	329,860	456,903	466,896	419,114	465,963
Cash and Equivalents	81,912	60,622	39,990	76,496	71,170	41,778	73,672
Accounts Receivable from Clients	87,741	89,264	68,382	104,144	98,090	92,217	93,475
Other Accounts Receivable	79,399	91,242	139,442	173,815	183,032	192,737	202,956
Inventories	82,023	82,672	52,606	86,387	99,177	77,563	81,624
ST Promissory Notes from the Federal Government	38,154	4,910	0	0	0	0	0
Otros Current Assets**	23,881	11,843	29,440	16,060	15,428	14,820	14,236
Long-Term Assets	1,682,087	1,577,896	1,598,628	1,648,935	1,765,270	1,787,453	1,833,839
Investments in Non-Consol. Subs.	16,842	14,875	12,015	8,936	5,857	2,808	1,021
Plant, Property & Equipment	1,402,486	1,211,750	1,276,130	1,327,860	1,433,757	1,446,303	1,481,540
Licences and Rights of Way	3,941	3,466	0	1,377	1,377	1,377	1,377
Deferred Taxes	122,785	136,167	108,529	86,154	94,696	102,262	109,927
Other LT Assets	136,034	211,638	201,954	224,608	229,583	234,703	239,974
Wells not assigned to a reserve	9,779	11,118	22,776	18,639	19,319	20,024	20,755
LT Promissory Notes from the Federal Government	119,829	121,625	112,400	0	0	0	0
Advance Payments and Other Assets	6,426	8,077	7,584	151,755	156,049	160,464	165,005
Right-Of-Use Assets	0	70,818	59,195	54,215	54,215	54,215	54,215
TOTAL LIABILITIES	3,534,603	3,915,656	4,333,215	4,206,313	4,347,708	4,498,574	4,762,890
Short-Term Liabilities	447,776	552,204	772,410	911,937	664,768	702,072	678,251
Short-Term Debt	191,796	244,924	391,097	486,333	240,244	310,659	266,837
Suppliers	149,843	208,034	281,978	265,831	262,824	227,759	245,778
Taxes Payable	65,325	50,693	51,200	106,227	107,508	108,804	110,115
Other Short-Term Liabilities	40,813	48,552	48,134	53,546	54,191	54,850	55,521
Other Accounts Payable	24,918	26,055	30,709	32,019	32,664	33,322	33,994
Derivative Instruments	15,895	16,650	9,318	13,636	13,636	13,636	13,636
ST Lease Liabilities	0	5,847	8,107	7,891	7,891	7,891	7,891
Long-Term Liabilities	3,086,826	3,363,453	3,560,805	3,294,375	3,682,940	3,796,501	4,084,640
Long-Term Debt	1,890,490	1,738,250	1,867,630	1,757,412	2,110,264	2,170,318	2,390,879
Deferred Taxes	4,512	3,677	3,412	3,030	3,030	3,030	3,030
Other LT Liabilities	1,191,824	1,621,526	1,689,763	1,533,934	1,569,647	1,623,154	1,690,732
LT Lease Liabilities	0	62,302	55,077	51,384	51,384	51,384	51,384
Provision for Sundry Loans***	111,282	102,409	99,517	98,482	96,916	95,375	93,858
Reserve for Employee Benefits and Provisions	1,080,542	1,456,815	1,535,168	1,384,067	1,421,347	1,476,396	1,545,490
EQUITY	(1,459,405)	(1,997,208)	(2,404,727)	(2,100,475)	(2,115,542)	(2,292,007)	(2,463,089)
Non-controlling Interest	477	(142)	370	173	(28)	(226)	(423)
Contributed Capital, Cumulative Earnings & Other	523	480	575	376	173	(28)	(226)
Current Earnings	(45)	(622)	(205)	(203)	(201)	(199)	(197)
Majority Equity	(1,459,883)	(1,997,067)	(2,405,097)	(2,100,648)	(2,115,514)	(2,291,780)	(2,462,665)
Common Stock	188,335	188,335	188,142	503,725	739,854	739,854	739,854
Labor Liability Promissory Notes	185,440	185,440	185,440	185,440	185,440	185,440	185,440
Paid-in Capital	26,500	148,631	195,080	195,852	195,852	195,852	195,852
Cumulative Earnings	(1,679,783)	(2,172,183)	(2,464,912)	(2,761,504)	(2,985,664)	(3,236,660)	(3,412,926)
Current Earnings	(180,374)	(347,289)	(508,847)	(224,160)	(250,995)	(176,266)	(170,885)
Debt	2,082,286	1,983,174	2,258,727	2,243,745	2,350,508	2,480,977	2,657,715
Net Debt	2,000,374	1,922,552	2,218,738	2,167,249	2,279,338	2,439,199	2,584,043
Account Receivables days	22	23	24	23	25	25	26
Inventory days	24	25	27	31	28	29	30
Suppliers days	43	49	96	97	68	73	78

Source: HR Ratings' forecasts based on the Company's reported results. Projections beginning on 1Q22.

* Financial Statements Audited by BDO and KPMG since 2018, in compliance with IFRS.

**Mainly derivatives, but also includes assets held by PEMEX and to be distributed in the various rounds.

***Provision for plugging expenses, environmental protection and ongoing lawsuits.

Pemex (Stress): Income Statement in Nominal Pesos (m)						
	Calendar Year					
	2019*	2020*	2021	2022P	2023P	2024P
Net Sales	1,401,971	953,662	1,496,785	1,423,721	1,260,901	1,277,504
Domestic	807,020	503,712	762,115	790,858	718,571	746,630
Exports	585,842	445,234	729,698	627,642	536,848	525,117
Revenue from Services	9,109	4,715	4,973	5,221	5,482	5,756
Cash COGS	983,134	699,320	946,136	1,099,236	867,582	859,732
Gross income bef. Depreciation	418,838	254,342	550,649	324,485	393,319	417,772
Operating expenses	147,295	154,226	157,904	157,126	161,749	166,683
EBITDA	271,542	100,115	392,745	167,360	231,570	251,089
Loss (Reversal) on Impairment of Properties	97,082	36,354	(5,478)	26,786	27,590	28,418
Depreciation & Amortization	145,159	137,399	139,148	151,736	158,766	161,280
Operating income (loss) before other income	29,301	(73,637)	259,076	(11,163)	45,214	61,391
Other Income (Costs)	7,729	10,574	16,509	161,013	165,429	169,975
Operating income (loss) after other income	37,030	(63,063)	275,585	149,850	210,643	231,366
Interest Income	24,484	16,742	29,376	26,448	26,524	26,328
Other Financial Income	16,231	17,096	7,606	0	0	0
Interest Expense	132,861	161,765	145,803	159,958	191,013	186,895
Other Financial Expense	34,743	0	32,830	12,200	12,200	12,200
Net Financial Income	(126,890)	(127,927)	(141,650)	(145,711)	(176,689)	(172,767)
Foreign exchange net result	86,930	(128,949)	(45,580)	(38,698)	(18,235)	(36,267)
Integral Financing Result	(39,959)	(256,876)	(187,231)	(184,409)	(194,924)	(209,035)
Earnings after Integral Financial Result	(2,930)	(319,939)	88,354	(34,559)	15,719	22,331
Income from non-consolidated subsidiaries	(1,158)	(3,541)	(3,110)	(3,079)	(3,048)	(1,787)
Earnings before Taxes and duties	(4,088)	(323,480)	85,244	(37,638)	12,670	20,544
Taxes and duties	343,823	185,572	309,607	213,558	189,135	191,626
Current Taxes	374,487	154,609	310,382	222,101	196,701	199,291
Deferred Taxes	(30,664)	30,963	(775)	(8,542)	(7,565)	(7,665)
Net Income (loss)	(347,911)	(509,052)	(224,363)	(251,196)	(176,465)	(171,082)
Non-controlling interest	(622)	(205)	(203)	(201)	(199)	(197)
Controlling Interest	(347,289)	(508,847)	(224,160)	(250,995)	(176,266)	(170,885)
<i>Last Twelve Months Figures</i>						
Change in Sales (%)	-16.6%	-32.0%	57.0%	-4.9%	-11.4%	1.3%
Gross Margin (%)	29.9%	26.7%	36.8%	22.8%	31.2%	32.7%
EBITDA Margin (%)	19.4%	10.5%	26.2%	11.8%	18.4%	19.7%
Current Taxes to Pre-Tax Income (%)	-8411.4%	-57.4%	363.2%	-567.4%	1492.8%	932.8%
Net Sales to Plant, Prop. & Equip.	1.2	0.7	1.1	1.0	0.9	1.0
ROCE (%)	2.2%	-6.3%	21.3%	-0.8%	3.2%	4.3%
Cost of Debt	6.6%	6.9%	6.4%	7.0%	7.9%	7.2%
Return on Financial Assets	15.8%	14.4%	21.3%	15.1%	17.4%	16.4%

Source: HR Ratings' forecasts based on the Company's reported results. Projections beginning on 1Q22.

* Financial Statements Audited by BDO and KPMG since 2018, in compliance with IFRS.

EBITDA Analysis	2019*	2020*	2021	2022P	2023P	2024P
Sales adjusted with IEPS	1,401,971	953,662	1,496,785	1,423,721	1,260,901	1,277,504
EBITDA (2)	271,542	100,115	392,745	167,360	231,570	251,089
Net cost of employee benefits (pensions)	116,177	128,809	140,215	144,422	148,755	153,217
Leases in Depreciation and Interest (IFRS 16)	29,571	29,278	27,990	27,990	27,990	27,990
Adjusted EBITDA (4)	387,719	199,646	504,970	283,791	352,334	376,316
Loss (Reversal) on Impairment of Properties	97,082	36,354	(5,478)	26,786	27,590	28,418
Adjusted EBITDA with Impairment in Properties	290,637	163,292	510,449	257,005	324,744	347,898
Adjusted EBITDA Margin	27.7%	20.9%	33.7%	19.9%	27.9%	29.5%

Source: HR Ratings' forecasts based on the Company's reported results. Projections beginning on 1Q21.

* Financial Statements Audited by BDO and KPMG since 2018, in compliance with IFRS.

(1) As Pemex does not provide a depreciation and amortization split between costs and expenses in its income statements we have allocated a portion to both costs of sales and operating expenses so as to present these accounts on a cash basis.

(2) Includes an adjustment related to an extraordinary recorded cost due to impairment of fixed assets as a result of the steep decline in crude oil prices & the economic condition of Pemex's hydrocarbon reserves.

(3) Includes gain on discount rate of plugging of wells.



**Credit
Rating
Agency**

Petróleos Mexicanos HR AAA / HR BBB+ (G)

State-owned Production Company

HR+1

Corporate
April 28, 2022

An NRSRO Rating*

Pemex (Stress): Cash Flow in Nominal Pesos(m)							
	Calendar Year						
	2018*	2019*	2020*	2021	2022P	2023P	2024P
OPERATING ACTIVITIES							
Earnings (Loss) before Taxes	281,158	(4,088)	(323,480)	85,244	(37,638)	12,670	20,544
Depreciation & Amortization	156,025	145,160	137,340	139,235	151,736	158,766	161,280
Profit (loss) from sale of fixed asset	(701)	0	0	0	0	0	0
Impairment of properties, plant and equipment	(21,419)	97,082	36,354	(5,478)	26,786	27,590	28,418
Income from non-consolidated subsidiaries and affiliates	(1,527)	1,158	3,541	3,110	3,079	3,048	1,787
Interest Income	(31,557)	(24,484)	(16,742)	(29,376)	(26,448)	(26,524)	(26,328)
Other Investment activity related charges	15,854	73,887	23,236	16,044	0	0	0
Total Investment Related Charges	116,675	292,803	183,728	123,534	155,154	162,880	165,158
Interest expense	120,727	132,861	161,765	145,803	159,958	191,013	186,895
Loss (Gain) from foreign exchange fluctuations	(19,762)	(78,245)	137,022	44,196	38,698	18,235	36,267
Amortization of premiums, discounts, profits and debt issuance expense	5,880	11,641	0	17,792	12,200	12,200	12,200
Total Charges related to Financial Activities	106,845	66,257	298,787	207,791	210,857	221,448	235,362
Cash Flow from P&L before Taxes	504,679	354,973	159,036	416,569	328,373	396,999	421,064
Decrease (Increase) in Accounts Receivable	26,746	(1,523)	20,881	(35,761)	6,054	5,873	(1,258)
Decrease (Increase) in Inventories	(18,164)	(650)	17,010	(7,660)	(12,790)	21,614	(4,061)
Decr. (Incr.) in Other Assets	(22,246)	(10,625)	(63,019)	(5,639)	(13,557)	(14,217)	(14,907)
Increase (Decrease) in Suppliers	9,887	46,561	23,030	(20,345)	(3,007)	(35,065)	18,018
Increase (Decrease) in Other Liabilities	47,655	61,167	66,047	69,046	37,639	55,462	69,560
Net total change in working capital	43,878	94,930	63,950	(360)	14,339	33,666	67,353
Taxes on earnings paid or returned	(432,546)	(372,673)	(157,691)	(263,358)	(222,101)	(196,701)	(199,291)
Cash flow generated by operations	(388,667)	(277,743)	(93,742)	(263,718)	(207,762)	(163,034)	(131,937)
Net cash flow from operating activities	116,012	77,230	65,294	152,851	120,611	233,964	289,126
INVESTING ACTIVITIES							
Net investment in Plant & Equipment	(94,004)	(109,654)	(114,977)	(217,093)	(284,420)	(198,901)	(224,935)
Investment in Intangible Assets	(14,855)	(17,220)	(23,641)	(25,534)	0	0	0
Business Disposal	4,078	0	0	0	0	0	0
Interest Income	31,557	24,484	16,742	20,084	26,448	26,524	26,328
Other Assets	(2,086)	(918)	(19,264)	(38,823)	0	0	0
Net cash flow from investing activities	(75,309)	(103,308)	(141,140)	(261,367)	(257,972)	(172,377)	(198,608)
Cash needs related to financing activities	40,703	(26,078)	(75,846)	(108,517)	(137,361)	61,587	90,519
FINANCING ACTIVITIES							
Loans obtained from financial institutions	899,769	1,167,835	1,288,130	1,652,152	660,227	352,478	451,130
Amortization of loans	(841,033)	(1,185,042)	(1,151,962)	(1,707,582)	(592,162)	(240,244)	(310,659)
Interest paid	(115,289)	(127,945)	(130,989)	(138,278)	(159,958)	(191,013)	(186,895)
Interest on Leases	0	(10,709)	(10,011)	(11,210)	(12,200)	(12,200)	(12,200)
Third party Financing	(56,554)	(155,862)	(4,832)	(204,919)	(104,094)	(90,979)	(58,624)
Increase (decrease) in equity	0	160,836	52,057	339,269	236,129	0	0
Own Financing	0	160,836	52,057	339,269	236,129	0	0
Net cash flow from financing activities	(56,554)	4,974	47,225	134,351	132,035	(90,979)	(58,624)
Net Increase (decrease) in cash and cash equivalents	(15,851)	(21,104)	(28,621)	25,834	(5,326)	(29,393)	31,894
Effect of change in cash value from FX	(88)	(186)	7,989	10,672	0	0	0
Cash and cash equiv. at the beginning of the period	97,852	81,912	60,622	39,990	76,496	71,171	41,778
Cash and cash equivalents at the end of the period	81,912	60,622	39,990	76,496	71,171	41,778	73,672
Last Twelve Months							
Maintenance CAPEX	(94,004)	(109,654)	(114,977)	(217,093)	(225,777)	(234,808)	(244,201)
Special Adjustments	311,951	375,520	81,894	284,430	193,203	148,302	144,239
Free Cash Flow	333,871	332,200	30,189	219,649	75,837	135,257	176,965
Total Debt Amortizations	841,033	1,185,042	1,151,962	1,707,582	592,162	240,244	310,659
Voluntary pre-payments and automatic credit lines	(683,824)	(993,247)	(907,038)	(1,316,484)	(105,829)	0	0
Net Debt Amortizations	157,209	191,796	244,924	391,097	486,333	240,244	310,659
Net Interest Pmts.	83,732	103,461	114,247	118,194	133,510	164,489	160,567
Net Debt Service	240,942	295,257	359,171	509,292	619,843	404,733	471,226
Debt Service Coverage Ratio (DSCR)	1.4	1.1	0.1	0.4	0.1	0.3	0.4
Cash and Equivalents at Beginning of Period	97,852	81,912	60,622	39,990	76,496	71,171	41,778
DSCR with cash	1.8	1.4	0.3	0.5	0.2	0.5	0.5
Net Debt to Free Cash Flow	6.0	5.8	73.5	9.9	30.1	18.0	14.6
Net Debt to EBITDA	4.0	7.1	22.2	5.5	13.6	10.5	10.3

Source: HR Ratings' forecasts based on the Company's reported results. Projections beginning on 1Q22.

* Financial Statements Audited by BDO and KPMG since 2018, in compliance with IFRS.

Adjusted Free Cash Flow	2018*	2019*	2020*	2021	2022P	2023P	2024P
Net Cash Flows from Operating Activities	116,012	77,230	65,294	152,851	120,611	233,964	289,126
Income Taxes Paid or Refunded	432,546	372,673	157,691	263,358	222,101	196,701	199,291
Difference in Changes in Cash and Cash Equivalents	(88)	(186)	7,989	10,672	0	0	0
Lease Liabilities	0	(10,709)	(10,011)	(11,210)	(12,200)	(12,200)	(12,200)
Maintenance Capex	(94,004)	(109,654)	(114,977)	(217,093)	(225,777)	(234,808)	(244,201)
Adjusted Cash Flow Before Taxes	454,465	329,354	105,987	198,577	104,734	183,656	232,016
Taxes	(120,594)	2,846	(75,798)	21,071	(28,897)	(48,399)	(55,051)
Adjusted Free Cash Flow (AFCF)	333,871	332,200	30,189	219,649	75,837	135,257	176,965



Credit
Rating
Agency

An NRSRO Rating*

Petróleos Mexicanos HR AAA / HR BBB+ (G)

State-owned Production Company

HR+1
Corporate
April 28, 2022

Glossary

- **Barrel.** Unit of volume for petroleum and oil-derived hydrocarbons; equivalent to 42 gal. (US) or 158.987304 liters. One cubic meter is equivalent to 6.28981041 barrels.
- **Barrel of crude oil equivalent (bcoe).** The volume of gas (or other fuels) expressed in barrels of crude oil, equivalent to the same amount of energy (energy equivalence) obtained from crude oil.
- **Barrels per day (bd).** In production, the number of barrels of hydrocarbons produced in a 24-hour period. This is usually an average figure over a longer period of time. It is calculated by dividing the number of barrels in the year by 365 or 366 days, as the case may be.
- **Fuel.** Any substance used to produce heat energy through a chemical or nuclear reaction. Energy is produced by the conversion of combustible mass to heat.
- **Net Debt to AFCF.** Net Debt / AFCF 12 months
- **Net Debt to EBITDA.** Net Debt / EBITDA 12 months
- **DSCR or Debt Service Coverage Ratio.** Cash Flow 12m / Debt Service 12m (Interest + Amortization of Capital)
- **Adjusted Free Cash Flow (AFCF).** Net Cash Flow from Operating Activities – Maintenance Investment Expenses – Special Adjustments
- **Natural gas.** A mixture of light paraffin hydrocarbons, mostly methane, with small amounts of ethane and propane; with varying proportions of inorganic gases, nitrogen, carbon dioxide and hydrogen sulfide. Natural gas may be found in association with crude oil or independently in non-associated gas or dry gas wells.
- **Hydrocarbons.** A group of organic compounds containing mainly carbon and hydrogen. They are the simplest organic compounds and can be considered the main substances from which all other organic compounds are derived.
- **IEPS.** Special tax on production and services. This tax is levied by the Federal Government on the self-consumption and sale of gasoline, diesel and natural gas for fueling by Pemex Refinación and Pemex Gas and Petroquímica Básica to authorized retailers, who in turn sell directly to the end consumer.
- **Reserve.** The recoverable portion of the total volume of hydrocarbons in underground rocks.



Credit
Rating
Agency

An NRSRO Rating*

Petróleos Mexicanos HR AAA / HR BBB+ (G) State-owned Production Company

HR+1
Corporate
April 28, 2022

- **Probable reserve.** The amount of hydrocarbons in drilled and undrilled traps estimated at a specific date, identified using geological and geophysical methods, located in areas next to productive deposits where hydrocarbon production is believed to be technically and economically possible, at the same stratigraphic level where there are proven reserves.
- **Proven reserve.** The volume of hydrocarbons measured at atmospheric conditions, which can be efficiently produced using the exploitation methods and systems applicable at the time of both the primary and secondary evaluations.
- **Possible Reserves.** The amount of hydrocarbons in undrilled traps estimated at a specific date, identified using geological and geophysical methods, located in areas far from production areas but within the same productive geologic province, where hydrocarbon production is technically and economically possible, at the same stratigraphic level where there are proven reserves.
- **mbd and mmbd.** Thousands of barrels per day (mbd) and Millions of barrels per day (mmbd).



**Credit
Rating
Agency**

An NRSRO Rating*

Petróleos Mexicanos HR AAA / HR BBB+ (G)

State-owned Production Company

HR+1
Corporate
April 28, 2022

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**Credit
Rating
Agency**

Petróleos Mexicanos HR AAA / HR BBB+ (G)

State-owned Production Company

HR+1

Corporate
April 28, 2022

An NRSRO Rating*

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Estados Unidos: One World Trade Center, Suite 8500, New York, New York, ZIP Code 10007, Tel +1 (212) 220 5735.

The rating granted by HR Ratings de México, S.A. de C.V. to this entity, issuer and/or issue is based on the analysis performed in base and stress scenarios, in accordance with the following methodology(ies) established by the rating agency itself:

Corporate Debt Credit Risk Evaluation, August 2021
General Methodological Criteria, January 2022
Sovereign Debt Methodology, May 2017
17g7 Form

For more information regarding this methodology(ies), please consult <https://www.hrratings.com/es/methodology>

Complementary information

Previous Rating.

Pemex LT: HR AAA with Stable Outlook
Pemex ST: HR+1
Pemex LT Global: HR BBB+ (G) with Negative Outlook
PEMEX 12U: HR AAA with Stable Outlook
PEMEX 13-2: HR AAA with Stable Outlook
PEMEX 14U: HR AAA with Stable Outlook
PEMEX 14-2: HR AAA with Stable Outlook
PEMEX 15U: HR AAA with Stable Outlook
PEMEX 19: HR AAA with Stable Outlook
PEMEX 14-2 (G): HR BBB+ (G) with Negative Outlook
PEMEX 15U (G): HR BBB+ (G) with Negative Outlook
2.500% Notes 2021: HR BBB+ (G) with Negative Outlook
3.750% Notes 2024: HR BBB+ (G) with Negative Outlook
4.875% Notes 2028: HR BBB+ (G) with Negative Outlook
3.750% Notes 2025: HR BBB+ (G) with Negative Outlook
6.500% Notes 2027: HR BBB+ (G) with Negative Outlook
6.750% Notes 2047: HR BBB+ (G) with Negative Outlook
5.350% Notes 2028: HR BBB+ (G) with Negative Outlook
6.350% Notes 2048: HR BBB+ (G) with Negative Outlook
Notes 2023: HR BBB+ (G) with Negative Outlook
Notes 2025: HR BBB+ (G) with Negative Outlook
Notes 2029: HR BBB+ (G) with Negative Outlook
Notes 2022: HR BBB+ (G) with Negative Outlook
6.49% Notes 2027: HR BBB+ (G) with Negative Outlook
6.84% Notes 2030: HR BBB+ (G) with Negative Outlook
7.69% Bonds 2050: HR BBB+ (G) with Negative Outlook
6.50% Notes 2029: HR BBB+ (G) with Negative Outlook
PEMEX 2,250m EUR: HR BBB+ (G) with Negative Outlook
5.500% Notes 2021: HR BBB+ (G) with Negative Outlook
6.375% Notes 2021: HR BBB+ (G) with Negative Outlook
4.875% Notes 2022: HR BBB+ (G) with Negative Outlook
8.625% Notes 2022: HR BBB+ (G) with Negative Outlook
5.375% Notes 2022: HR BBB+ (G) with Negative Outlook
LIBOR+365 bps Notes 2022: HR BBB+ (G) with Negative Outlook
3.500% Notes 2023: HR BBB+ (G) with Negative Outlook
4.625% Notes 2023: HR BBB+ (G) with Negative Outlook
8.625% Notes 2023: HR BBB+ (G) with Negative Outlook
4.875% Notes 2024: HR BBB+ (G) with Negative Outlook
9.500% Notes 2027: HR BBB+ (G) with Negative Outlook
4.250% Notes 2025: HR BBB+ (G) with Negative Outlook
4.500% Notes 2026: HR BBB+ (G) with Negative Outlook
5.950% Notes 2031: HR BBB+ (G) with Negative Outlook
6.875% Notes 2026: HR BBB+ (G) with Negative Outlook
6.625% Notes 2035: HR BBB+ (G) with Negative Outlook
6.625% Notes 2038: HR BBB+ (G) with Negative Outlook
6.500% Notes 2041: HR BBB+ (G) with Negative Outlook
5.500% Notes 2044: HR BBB+ (G) with Negative Outlook
6.375% Notes 2045: HR BBB+ (G) with Negative Outlook
5.625% Notes 2046: HR BBB+ (G) with Negative Outlook
6.950% Notes 2060: HR BBB+ (G) with Negative Outlook
6.625% Notes PERP: HR BBB+ (G) with Negative Outlook
6.875% Notes 2025: HR BBB+ (G) with Negative Outlook



**Credit
Rating
Agency**

Petróleos Mexicanos HR AAA / HR BBB+ (G)

State-owned Production Company

HR+1

Corporate
April 28, 2022

An NRSRO Rating*

Date of last rating action

Pemex LT: April 30, 2021
 Pemex ST: April 30, 2021
 Pemex ST Global: 30 de abril de 2021
 PEMEX 12U: 30 de abril de 2021
 PEMEX 13-2: 30 de abril de 2021
 PEMEX 14U: 30 de abril de 2021
 PEMEX 14-2: 30 de abril de 2021
 PEMEX 15U: 30 de abril de 2021
 PEMEX 19: 30 de abril de 2021
 PEMEX 14-2 (G): 30 de abril de 2021
 PEMEX 15U (G): 30 de abril de 2021
 2.500% Notas 2021: 30 de abril de 2021
 3.750% Notas 2024: 30 de abril de 2021
 4.875% Notas 2028: 30 de abril de 2021
 3.750% Notas 2025: 30 de abril de 2021
 6.500% Notas 2027: 30 de abril de 2021
 6.750% Notas 2047: 30 de abril de 2021
 5.350% Notas 2028: 30 de abril de 2021
 6.350% Notas 2048: 30 de abril de 2021
 Notas 2023: April 30, 2021
 Notas 2025: April 30, 2021
 Notas 2029: April 30, 2021
 Notas 2022: April 30, 2021
 6.49% Notes 2027: April 30, 2021
 6.84% Notes 2030: April 30, 2021
 7.69% Bonds 2050: April 30, 2021
 6.50% Notes 2029: April 30, 2021
 PEMEX 2,250m EUR: April 30, 2021
 5.500% Notes 2021: April 30, 2021
 6.375% Notes 2021: April 30, 2021
 4.875% Notes 2022: April 30, 2021
 8.625% Notes 2022: April 30, 2021
 5.375% Notes 2022: April 30, 2021
 LIBOR+365 bps Notes 2022: April 30, 2021
 3.500% Notes 2023: April 30, 2021
 4.625% Notes 2023: April 30, 2021
 8.625% Notes 2023: April 30, 2021
 4.875% Notes 2024: April 30, 2021
 9.500% Notes 2027: April 30, 2021
 4.250% Notes 2025: April 30, 2021
 4.500% Notes 2026: April 30, 2021
 5.950% Notes 2031: April 30, 2021
 6.875% Notes 2026: April 30, 2021
 6.625% Notes 2035: April 30, 2021
 6.625% Notes 2038: April 30, 2021
 6.500% Notes 2041: April 30, 2021
 5.500% Notes 2044: April 30, 2021
 6.375% Notes 2045: April 30, 2021
 5.625% Notes 2046: April 30, 2021
 6.950% Notes 2060: April 30, 2021
 6.625% Notes PERP: April 30, 2021
 6.875% Notes 2025: April 30, 2021

Period of the financial information used by HR Ratings for the assignment of the current rating.

1Q11-4Q21

Main sources of information used, including third parties.

Internal and operating information published by the Company, presentations issued by the Company and Audited Financial Statements by BOD and KPMG for 2020.

Ratings assigned by other rating agencies that were used by HR Ratings (if so).

N/A

HR Ratings considered at the moment of assigning or reviewing the rating, the existence of mechanisms designed to align the incentives between the originator, servicer and guarantor and the possible buyers of the rated instrument (where it applies).

N/A

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**Credit
Rating
Agency**

Petróleos Mexicanos HR AAA / HR BBB+ (G)

State-owned Production Company

HR+1
Corporate
April 28, 2022

An NRSRO Rating*

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