

MEXICO'S ENERGY AND INFRASTRUCTURE INVESTMENT GUIDE 2025-2030

GOODRICH, RIQUELME Y ASOCIADOS A.C.

PROLOGUE

Mexico is at a pivotal moment. At this historic point it is critical to have a deep and educated perspective that will help us look at the opportunities of the future and not the risks of the past.

After the first six years of the so-called Fourth Transformation, it is clear that the country is undergoing a process of profound change -which for better or worse- is structurally altering the country's political, social and economic environment. The institutional erosion of the government of former President Andres Manuel Lopez Obrador, marked by a systematic destruction or weakening of the checks and balances of the political system, including independent regulatory bodies, the judicial system and the separation of powers itself, has definitely generated widespread concern about the direction of the country and its future, and fostered a level of uncertainty for businesses with few parallels in the country's history.

And even though some changes and adjustments are beginning to be seen under the new regime of President Claudia Sheinbaum, who has sent some positive messages of institutional calm and a better relationship with industry and private investment (domestic and foreign), two things seem to be clear for now: Mexico will not return in the near future to being the country it was a decade ago, and the speed and depth of the course corrections will not be what most industry and private investment expects. And all of this could not come at a more inopportune global context, as the entire world seems to be undergoing profound changes and many of the general principles that have governed us in some form since the end of the cold war, such as liberal democracy, free trade and the rules-based global order, are being seriously re-evaluated or threatened by different powers at the global level.

Mexico is not helping itself with its current levels of uncertainty and the mixed messages coming from the new government at a time when countries around the world are reevaluating trade blocs and alliances, their national security needs and future growth catalysts, forcing companies to rethink and reevaluate their supply chains and investments.

However, it is precisely at times marked by high levels of uncertainty and change that it is most important to focus on the opportunities that still exist and those that are emerging. Despite the domestic environment and the apparent accelerating change in the global order, Mexico still has - and will continue to have - a myriad of magnificent opportunities to develop business, whether as part of a new integrated market in North America (under a renegotiated T-MEC), as a gateway not only to the U.S. but also to the rest of the region, or for its own domestic market.

That is why a guide like this is so important. In these times of high uncertainty, when it is easy to become paralyzed or lose focus on opportunities, we need serious and profound analyses that help us cut through all the noise -and what to speak of the pessimism- that all these changes have generated and shed light on how to continue investing, growing and generating new business.

Daniel Linsker

WELCOME TO GOODRICH'S INVESTMENT GUIDE

Since its founding in 1934, our firm has been committed to the global business community, interested in the sustainable development of Mexico. Since its origins, Goodrich has sought to maintain excellence and innovation as the cornerstones of its reason for existence.

With a team of nearly 200 professionals, we are proud to represent a highly diverse ecosystem of Fortune 500 companies across all economic sectors. We are equally honored to hold leadership roles in regional and international legal organizations, dedicating ourselves to advising on the most challenging concerns of our times, including climate change, the energy transition, and generative artificial intelligence.

Amongst the channels through which we seek to contribute in the long term to clients, organizations and civil society at large is through in-depth applied research. The Mexico's Energy and Infrastructure Investment Guide (2025 - 2030) in your hands follows that mission.

We trust that this Guide will be of interest to you, and that we can continue to support the day-to-day of your business in Mexico.

Yours,

Enrique Díaz
Managing Partner
Goodrich, Riquelme y Asociados A.C.

INTRODUCTION

For more than 90 years, our firm has sought to exceed the short-term expectations of its international clients, to offer them long-term added value, in the construction of their business models in Mexico. This Mexico's Energy and Infrastructure Investment Guide (2025–2030) (hereinafter, the "Guide") reflects our decades-long tradition of conducting applied research on business opportunities across various economic sectors. In identifying these opportunities, we also aim to explain the internal and external vectors that shape the markets in which our clients operate.

Domestically, as with any political transitions, the one experienced in Mexico, starting with the previous federal administration (2018 - 2024) went through a first phase of adaptation, and fortunately now enters a second stage offering improved conditions of certainty for investment. In the external sphere, the main challenges - for Mexico and for any other country - stem from the changes in global trade dynamics in the context of the battles for world hegemony.

As the exporting power that Mexico is, the government of President Scheinbaum and the private sector have been able to team up to strategically leverage, the deep integration that U.S. production chains have developed for more than three decades. It is there where Mexico's comparative advantages are found, and it is precisely there where the relocation of manufacturing and distribution positions Mexico as a truly exceptional country.

As one of the 15 largest economies in the world, a relatively young population of more than 130 million people, broad manufacturing diversification and an extensive network of treaties - including the USMCA - that grant it preferential

access to more than 50 international markets, Mexico is undoubtedly on the list of priorities of every multinational corporation.

In this context, energy and infrastructure are both sectors in themselves and fundamental prerequisites for any final investment decision. That is why, on this occasion, the firm has decided to focus its research efforts precisely on energy and infrastructure, through the guide presented herein.

In order to propose a 360° approach, we have segmented our study into four chapters: (i) soft-landing; (ii) energy investment opportunities; (iii) infrastructure investment opportunities; and (iv) main legal issues related to both sectors. The transversal axis in the development of each chapter has been to explain relevant and practical content in a direct and informal style. Our goal is therefore to get closer to business developers and decision-makers to optimize their entry into the country, and with it, to an extensive and deep commercial network.

Contributing to this guidance and to the ongoing services of our practice areas will be an enormous privilege.

Summer 2025

David Enriquez
Senior Partner | Energy & Infrastructure
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SOFT
LANDING
Chapter I

SOFT LANDING

This chapter aims to help international investors approach the Mexican market with greater clarity and context. Before turning to sector-specific opportunities, it offers an overview into how the country operates at a political, economic, and institutional level. The idea is to enable a smoother entry into the themes explored throughout the rest of the guide by setting the stage for informed decision-making.

We begin with **1.1 The Country at a Glance**, which summarizes key demographic and macroeconomic indicators, Mexico's geographic advantages, and its role in global trade. It also outlines the federal structure of the Mexican state and the roles of the Executive, Legislative, and Judicial branches. This section highlights how political alignment and recent reforms—particularly in energy and infrastructure—are shaping the policy landscape, including emerging signs of openness to private-sector collaboration under the current administration.

In **1.2 The Mexican Economy: Figures and Trends**, we review recent performance indicators—growth, inflation, interest rates, and trade balance—to understand the macroeconomic conditions shaping investment strategies. Strategic Sectors focuses on energy, infrastructure, and mining, which, while not dominant in GDP terms, are central to long-term

development plans and public-private investment frameworks. This leads into Global Projection, which examines how Mexico is positioning itself as a strategic export hub in energy, logistics, and critical minerals.

Then, **1.3 Trade Agreements and Investment Protection Networks** outlines Mexico's global integration through key treaties—USMCA, CPTPP, the EU agreement—and its legal mechanisms for investor protection and dispute resolution.

Finally, **1.4 Enablers and Challenges in the Investment Landscape** addresses the structural factors that influence investment outcomes, including nearshoring dynamics, access to financing, institutional support, and risks related to security, corruption, and regulatory uncertainty. These considerations round out the chapter by providing a more complete view of the opportunities and constraints shaping investment decisions in Mexico.

Taken together, these sections aim to provide a soft landing for investors—offering a clear overview of how Mexico functions, how institutions interact with business, and how regulatory, economic, and cultural factors shape the investment landscape.

1.1 THE COUNTRY AT A GLANCE



THE COUNTRY AT A GLANCE

Mexico, with a population of close to 130 million inhabitants, is among the fifteen largest economies globally and is the second largest in Latin America. In 2023, its GDP reached approximately 1.7 trillion USD (World Bank, 2023). Its demographics have an average age of 29 years, which gives it a young and dynamic workforce (INEGI, 2022). The Mexican economy is characterized by strong macroeconomic institutions, broad trade openness, and a diversified manufacturing sector, integrated into global supply chains (World Bank, 2024).

Thanks to its strategic location between the United States and Central and South America, Mexico has established itself as a key logistics node with access to both the Atlantic and the Pacific. It is the main trading partner of the United States and has a network of free trade agreements that allows it preferential access to more than 50 international markets.

From a macroeconomic point of view, Mexico has maintained controlled inflation and prudent fiscal policies. The country has become an attractive destination for nearshoring, driven by its political stability, competitive costs, and access to world-class logistics infrastructure.



1.1.1 THE MEXICAN DNA FOR BUSINESS

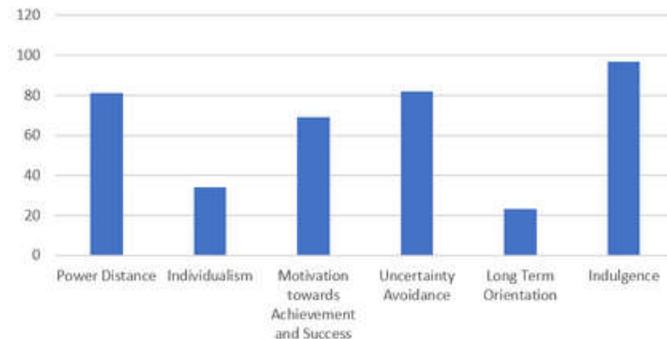
Understanding Mexico's business culture is essential to the success of any investment. The way in which companies, industrial relations, and decision-making are structured are influenced by profound socio-cultural factors. Using Hofstede's model (The Culture Factor Group, 2023), the main features of Mexican business culture can be identified:

1. Hierarchy and centralization (Power Distance - 81)

Mexico is a highly hierarchical society. In companies, organizational structures tend to be centralized, and employees expect clear instructions from their superiors. Authority is not usually questioned, and strategic decisions come from top management. This implies that investors must consider the importance of establishing relationships with the highest levels of the organization to ensure effective deals.

2. Collectivism and loyalty (Individualism - 34)

Unlike countries with an individualistic business culture, collectivism prevails in Mexico. Personal relationships and loyalty within work groups are fundamental. In the business sphere, this translates into a strong sense of commitment to colleagues and partners. Recruitment and promotion can be influenced by membership in certain circles or networks of trust, underscoring the importance of building strong, long-term relationships.



3. Motivation towards Achievement and Success (69)

Mexican society values competence and professional success. A company's financial results, growth, and reputation are key indicators of success. This creates a dynamic business environment in which initiative and performance are rewarded. For investors, this means that the Mexican market is receptive to companies that demonstrate a solid business model and a clear growth vision.

4. Risk aversion and need for stability (Uncertainty Avoidance - 82) Mexico has a high aversion to uncertainty. This is reflected in a preference for clear regulations, well-structured contracts, and a strong reliance on established regulations. Companies are often wary of abrupt changes and seek to minimize risks through well-defined rules. For investors, this highlights the need for legal and regulatory advice to ensure regulatory compliance and avoid contingencies.

5. Long Term Orientation (23) Mexico is a society of normative and short-term orientation. This means that businesses and consumers tend to prioritize immediate profits over long-term strategies. For investors, this approach can represent opportunities in sectors with rapid returns, although it also implies the need to adapt strategies to short economic cycles and expectations of immediate results.

6. Culture of Enjoyment and Optimism (Indulgence - 97) Mexican culture leans heavily toward indulgence, which translates into an optimistic mindset, a strong focus on quality of life, and an emphasis on enjoyment of the present. In business, this can be reflected in a preference for warm personal interactions, informal negotiations, and an emphasis on mutual trust.



1.1.2 MEXICAN INSTITUTIONAL FRAMEWORK: KEY ACTORS FOR INVESTMENT

Mexico's institutional framework is defined by its Political Constitution as that of a federal, democratic, and constitutional republic. The country is composed of the Federation, 32 states, each with its own constitution and legal system. This federal arrangement establishes two levels of government—federal and state—each with its own Executive, Legislative, and Judicial branches. These branches operate independently but are coordinated through constitutional mechanisms.

While this structure grants political and administrative autonomy to the states, the federal government retains significant influence over national governance. The President of the Republic heads a strong federal Executive that often sets the tone for policy and regulatory development across the country. In practice, state institutions tend to mirror the structures, priorities, and regulatory approaches of the federal government, leading to a high degree of institutional alignment.

Despite its federal character, Mexico maintains a centralist political tradition. Federal policy initiatives, budgetary programs, and constitutional reforms often guide state-level implementation and shape local priorities—particularly in strategic sectors such as energy, infrastructure, and public safety. As a result, while formal competences are distributed between levels of government, the federal Executive continues to play a dominant role in shaping the country's institutional and development agenda.

THE LEADERSHIP OF THE EXECUTIVE IN STRATEGIC SECTORS

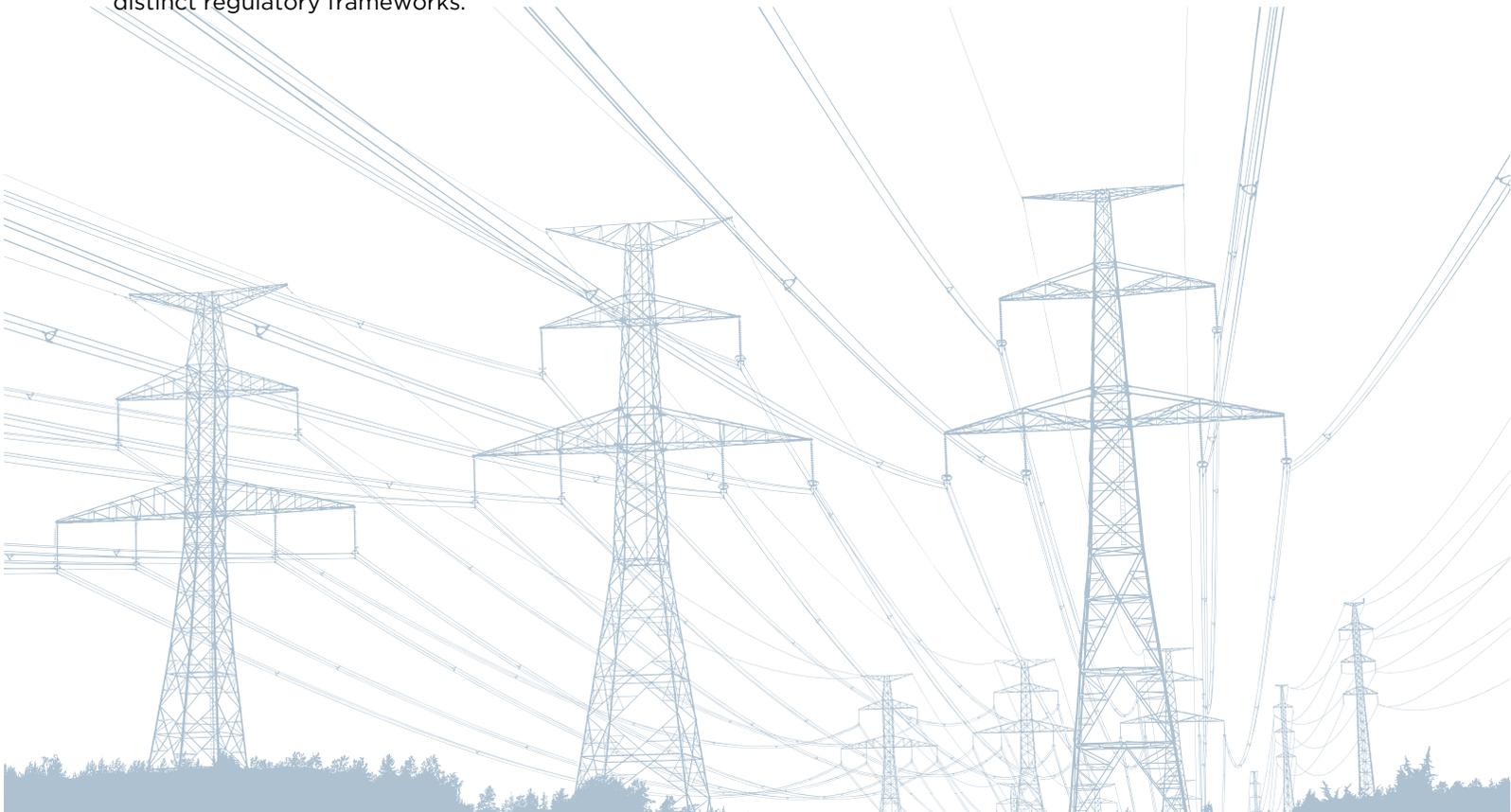
Under the MORENA administration, the leadership of the Executive has shown a clear concentration of power in key areas such as energy and infrastructure. This approach has been characterized by strong state control over sectors considered strategic for the country's security and sovereignty. The federal government's policies have favored the consolidation of public companies, mainly Mexican Petroleum (PEMEX) and the Federal Electricity Commission (CFE), rather than promoting market liberalization or private participation in these sectors.

As an example, PEMEX, Mexico's NOC, has maintained its dominance despite previous attempts to diversify the country's energy infrastructure. Throughout the MORENA's administrations, its role in oil and natural gas production has been strengthened, through new investments in exploration and production, as well as in the rehabilitation of existing refineries. In parallel, CFE, the Public Utility Company, has seen an increase in its share of the electricity market, particularly in the generation of energy through thermoelectric and hydroelectric plants.

As President Sheinbaum begins her term, the foundational principles of MORENA's model remain in place. The prominence of public entities continues to guide sectoral priorities. However, current signals suggest a potential shift toward greater openness—though not a departure from the prevailing framework. Rather than reverting to a liberalized market model, the administration appears to favor a pragmatic integration of private participation through structured alliances with public entities.

Government policies have focused on ensuring energy self-sufficiency, prioritizing domestic energy production over foreign sources. This model has been supported by the implementation of reforms that seek to guarantee energy sovereignty, limiting the opening to international markets and ensuring control of energy sources in the hands of the State. The centralization of power in the Executive has allowed the implementation of strategic decisions with a long-term approach, although it has also sparked debates about its impact on the competitiveness of the sector and the development of new technologies.

At this stage, the policy direction reflects continuity with the past administration, but also the beginning of a more refined posture. The guiding vision remains one of sovereignty and state leadership; however, there is a growing recognition of the value of private sector capabilities, particularly in technology, financing, and operational execution. This signals a possible broadening of opportunities for investors through hybrid models where public leadership is complemented—not displaced—by private collaboration. These dynamics will be explored further in Chapter 2, in the subsections on oil and gas and electricity, both of which operate under distinct regulatory frameworks.



THE ALIGNED LEGISLATURE: REFORMS AND RECONFIGURATION OF KEY SECTORS

As of April 2025, the distribution in the Mexican Congress reveals a strong concentration of legislative power in the hands of MORENA and its allies. In the Chamber of Deputies, the ruling coalition, which includes Morena, the Green Ecologist Party of Mexico (PVEM), and the Labor Party (PT), controls an absolute majority with 364 of the 500 seats, allowing it to approve ordinary laws without the need for consensus with the opposition. This bloc has the ability to modify the legislative framework in an expedite manner, which has facilitated the reform agenda promoted by the Executive in key areas such as energy and infrastructure.

In the Senate, Morena and its allies have 85 of the 128 seats, just one vote short of the qualified majority needed (two-thirds) to reform the Constitution. This proximity to the qualified majority gives the ruling coalition substantial control over the approval of constitutional reforms without the need to negotiate with the opposition. The opposition bloc, composed mainly of the National Action Party (PAN), Institutional Revolution Party (PRI), and Citizens Movement Party (MC), although relevant, does not have the capacity to block constitutional reforms if MORENA manages to add an additional vote.

Recent constitutional reforms, such as the 2024 energy reform, and secondary laws passed in March 2025, have reconfigured the energy and infrastructure sectors, aligning regulatory frameworks with the principle of the primacy of the State over the private sector. In this sense, the constitutional reform of 2024 reinforces the central role of state-owned companies. However, as noted above, the legal framework still allows private participation in projects, under the regime of energy sovereignty and with predominant control of public companies.

This legislative control of MORENA has significant implications for investment projects in Mexico. On the one hand, the ability to approve reforms without obstacles allows for a smoother execution of projects aligned with the government's vision. On the other hand, the preeminence of the State in strategic sectors limits investment opportunities for private actors operating under a model of open competition.

TRANSFORMING THE JUDICIARY: IMPLICATIONS FOR INVESTMENT AND INDEPENDENCE

The reform of the Judicial Branch of the Federation, enacted on September 15, 2024, marks an unprecedented structural change in the Mexican judicial system in the last 25 years. This reform introduces a number of key transformations that alter the way judges and magistrates are selected, organized, and supervised, with a direct impact on judicial independence and the investment environment in the country.

One of the most significant changes is the popular election of judicial officials. For the first time, citizens will directly elect the Justices of the Supreme Court of Justice of the Nation (SCJN), District Judges, Circuit Judges, members of the Superior Chamber and the Regional Chambers of the Electoral Tribunal of the Federal Judiciary (TEPJF), and members of the Judicial Disciplinary Court, the body responsible for internal oversight and discipline. In addition, the reform encompasses all local judges across the country, further extending the reach of the electoral mechanism.

The first popular election is scheduled for June 1, 2025. This reform proposes a new paradigm in the selection process, which may open the door to the politicization of the administration of justice, as elected officials could be more influenced by electoral and partisan dynamics. The reform also includes a reduction in the number of SCJN Justices from eleven to nine, and the dissolution of the two chambers (First and Second) that previously handled cases based on subject matter. Going forward, the Supreme Court will operate solely in plenary session, aligning its structure more closely with that of the United States Supreme Court. Additionally, the reform establishes new institutions such as the Judicial Administration Office and the Judicial Disciplinary Court, which will assume key roles in internal governance and oversight.

From an international perspective, the reform has raised concerns about the independence of the judiciary in Mexico. The introduction of popular election of judges could result in further politicization of judicial decisions, which puts the impartiality and professionalization of the system at risk. Analysts and international organizations warn that this reform could affect investor confidence, particularly among those from partner countries such as the United States and Canada, who have expressed concern about the impact of these changes on Mexico's legal and commercial stability, especially within the framework of the United States-Mexico-Canada Agreement (USMCA), which requires impartial and independent judicial systems.



In addition, the reform could weaken institutional checks and balances and, according to some actors, open the door to greater political control over the judiciary. This could compromise the protection of human rights and the rule of law in Mexico, directly affecting legal certainty and, therefore, investment in key sectors of the economy.

In summary, the judicial reform of 2024-2025 implies a profound structural transformation in the Mexican judicial system, with the intention of improving efficiency and its responsiveness to society. However, the implications for judicial independence and the investment climate raise doubts and concerns, especially about the risks of politicization and the impact on legal stability that could affect both domestic and foreign investor confidence.

1.2

THE MEXICAN ECONOMY: FIGURES AND TRENDS



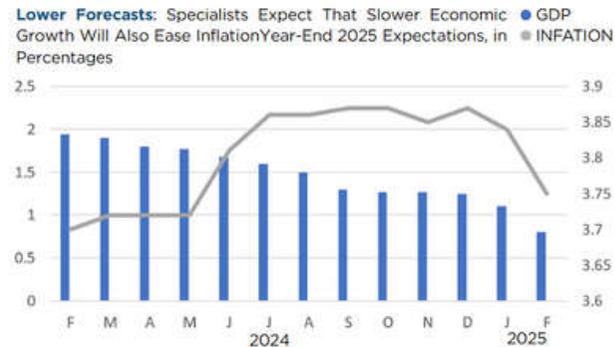
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1.2.1 FUNDAMENTALS: THE PULSE OF THE ECONOMY

According to the National Institute of Statistics and Geography, the Mexican economy contracted by 8.6% in 2020 due to the COVID-19 pandemic. Although a partial recovery followed in subsequent years—with growth rates of 6.3% in 2021, 3.7% in 2022, and 3.3% in 2023—growth slowed to just 1.3% in 2024 (INEGI, 2025).

Looking ahead to the 2025–2030 period, projections remain moderate. The International Monetary Fund anticipates a contraction of 0.3% for 2025, while the World Bank forecasts flat growth, despite the implementation of the “Plan México” and the ongoing trade policy with the United States.

A gradual recovery is expected beginning in 2027, with estimated growth rates between 1.8% and 2.5%. However, the outlook for 2030 remains uncertain. Risks include international political volatility, inflationary pressures, and internal structural challenges such as low productivity and labor informality. In conclusion, Mexico is entering a phase of moderate economic growth that will require prudent public policy and strategies aimed at strengthening competitiveness to ensure sustainable development.



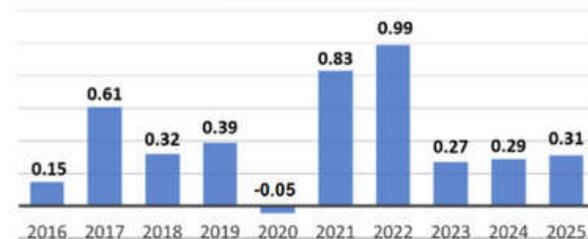
In 2025, inflation in Mexico showed a moderate uptick, reaching 3.96% year-over-year in the first half of April, driven primarily by increases in livestock products, food, and beverages (El País, 2025a). In response, and with the aim of mitigating adverse effects on economic activity, the Bank of Mexico lowered its interest rate by 50 basis points, setting it at 9% (El País, 2025).

High interest rates increase the cost of capital for businesses, making financing more expensive and limiting productive investment. Conversely, lower interest rates reduce such costs and can stimulate investment spending, thereby improving conditions for economic growth (Bank of Mexico, 2025).

In terms of domestic consumption, inflation erodes household purchasing power, reducing real spending capacity. Additionally, higher interest rates raise the cost of consumer credit, negatively affecting decisions to purchase durable goods and services. In contrast, lower rates ease access to financing, encouraging private consumption (World Bank, 2025).

In 2025, the Mexican peso has maintained notable stability against the U.S. dollar. According to official data from the Bank of Mexico, the average exchange rate stood at 20.47 pesos per dollar in March and decreased to 20.30 pesos in April 2025 (Bank of Mexico, 2025). This stability has persisted despite a global environment marked by financial volatility and rising trade tensions, particularly with the United States.

Monthly Variation in the National Consumer Price Index for March,
Selected Years.
Percentage Change.

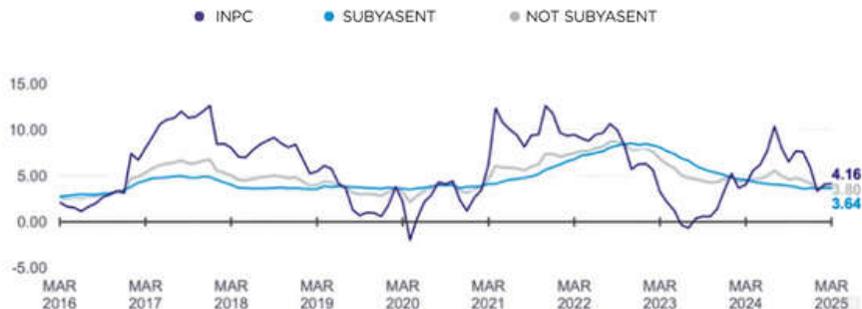


The peso's stability has had a positive impact on the Mexican economy by contributing to inflation control. According to the National Institute of Statistics and Geography (INEGI), annual inflation remained at 3.96% in April 2025, within the Bank of Mexico's target range (INEGI, 2025). This trend enabled the monetary authority to reduce its interest rate by 50 basis points, bringing it to 9%, with the aim of stimulating investment and domestic consumption (Bank of Mexico, 2025).

In 2025, Mexico's international reserves reached a record level of USD 237 billion, according to data from the Bank of Mexico (Bank of Mexico, 2025). This strengthening of reserves has been essential in consolidating financial stability, as it provides a solid buffer against external shocks and volatility in global markets. In addition, Mexico renewed its Flexible Credit Line with the International Monetary Fund for USD 35 billion, reaffirming international confidence in the country's macroeconomic management (International Monetary Fund, 2025).

Regarding the trade balance, in February 2025 Mexico posted a surplus of USD 807.4 million, resulting from exports totaling USD 45,047.6 million and imports of USD 44,240.2 million (INEGI, 2025). However, by the end of 2024, a trade deficit of USD 8.21 billion had been recorded, mainly attributable to a decline in the surplus of non-oil products and an increase in the oil trade deficit (INEGI, 2025).

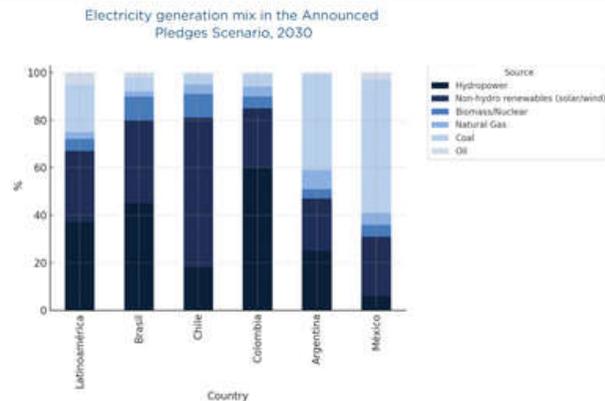
Variation of the National Consumer Price Index and Its Components from March 2016 to March 2025



1.2.2 STRATEGIC SECTORS: THE PILLARS OF ECONOMIC DEVELOPMENT

For the purposes of this Guide, we focus on three strategic sectors — energy, infrastructure, and mining — due to their structural relevance to Mexico’s investment agenda and long-term development, recognizing that manufacturing and services remain the leading contributors to GDP and exports.

The energy sector, although it represents around 3.7% of GDP according to the UNAM Gazette, is critical due to its cross-cutting impact. In 2023, based on the PRODESEN 2024-2027, only 23.2% of electricity came from clean sources—well below the 35% target. The sector is currently undergoing significant transformation. According to the presentation of the Strengthening and Expansion Plan of the National Electric System by the Federal Electricity Commission, 29,000 MW of additional generation capacity are planned by 2030, with private actors supporting energy transmission (Proyectos México, 2025).



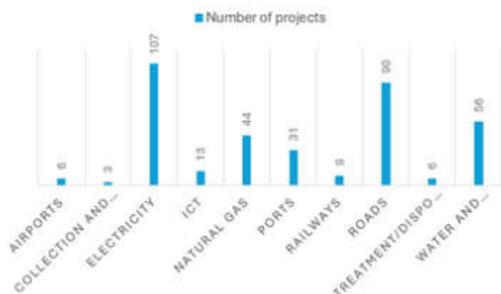
However, PEMEX continues to face challenges in crude oil production. An average output of 1.58 million barrels per day is projected for 2025, well below the government’s target of 1.8 million. This decline is attributed to the depletion of mature fields and delays in well completions (Milenio, 2025). To reverse this trend and reduce reliance on imported natural gas—especially from the United States—the government is exploring expanded use of fracking in collaboration with the private sector, leveraging the country’s vast gas reserves (Financial Times, 2025).

In infrastructure, the National Highway Infrastructure Program 2025-2030 includes an investment of MXN 173 billion to improve more than 4,000 km of roads, bridges, and highways, with priority projects in states such as Oaxaca and Guerrero (Government of Mexico, 2025).

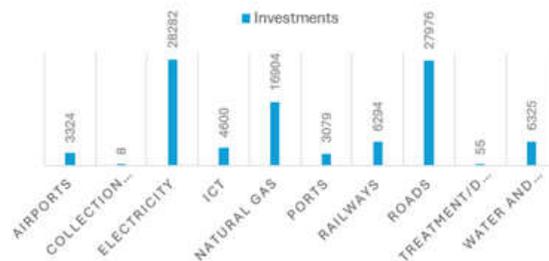
The Interoceanic Corridor of the Isthmus of Tehuantepec, promoted as part of the South-Southeast Development Plan, is expected to attract approximately USD 50 billion in investment and create over 550,000 jobs by 2050. The corridor aims to consolidate a logistics and manufacturing hub for North America and Asia, backed by institutions such as the Inter-American Development Bank and Banobras (Proyectos México, 2025).

Additionally, nearshoring has catalyzed a new wave of infrastructure investment. According to the Department of Economy, investment announcements linked to industrial relocation surpassed USD 150 billion between 2023 and 2024. This has led to priority projects such as the Interoceanic Corridor and the expansion of the national railway network. Despite these advances, structural gaps remain: according to the Federal Telecommunications Institute, only 31.5% of the population has access to 5G networks, and water infrastructure remains critically underdeveloped. The World Bank estimates that at least MXN 85 billion in annual investment is required to ensure water security and climate resilience.

Projects reaching financial closure by sector



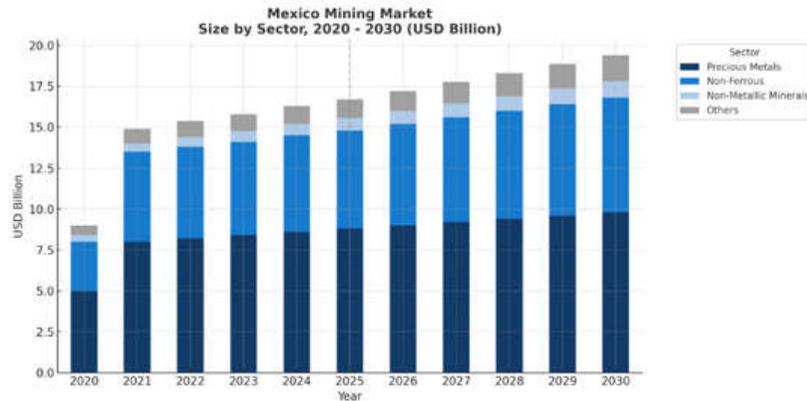
Investment in projects by sector (US\$ million)



Mining remains a key sector in Mexico's economy, particularly in the extraction of critical minerals such as lithium, copper, and zinc—essential for the global energy transition. The Mexican mining market is projected to reach a value of USD 2.3 billion by 2030, with an annual growth rate of 3.7% between 2025 and 2030, driven by rising demand from the construction, automotive, and electronics industries (Grand View Research, 2025).

Nevertheless, like all sectors, mining faces challenges related to political uncertainty and the need to improve ESG performance. To maintain competitiveness and attract investment, it is crucial for Mexico to provide legislative certainty and promote sustainable practices across industries.

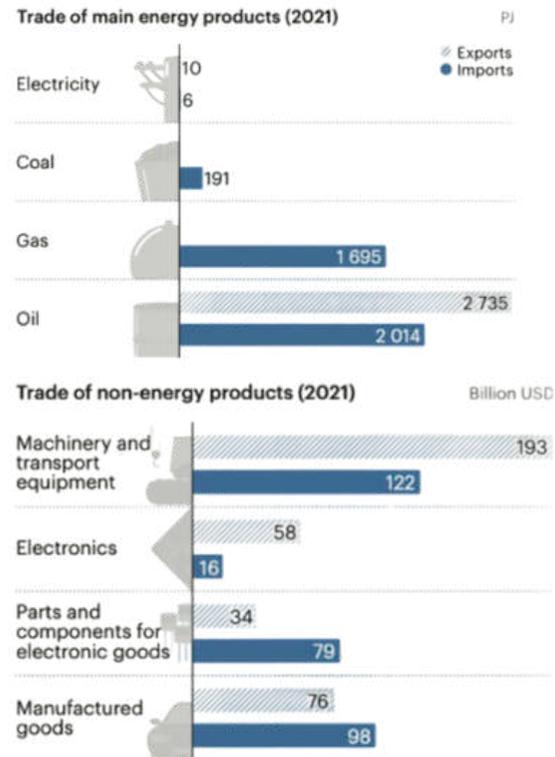
Nevertheless, like all sectors, mining faces challenges related to political uncertainty and the need to improve ESG performance. To maintain competitiveness and attract investment, it is crucial for Mexico to provide legislative certainty and promote sustainable practices across industries.



1.2.3 GLOBAL PROJECTION: MEXICO AS AN EXPORT POWERHOUSE

Mexico is emerging as a strategic export platform in a global context defined by decarbonization and the energy transition. Its geographic location, energy and mineral resources, and expanding logistics infrastructure position the country as a key player in global supply chains.

In the energy sector, according to a Reuters analysis, Mexico's crude oil production could decline significantly by 2030, potentially requiring imports to operate its refineries due to the aging of oil fields and insufficient investment in exploration and enhanced recovery technologies (Reuters, 2024). Nevertheless, the country has diversified its energy export mix by promoting liquefied natural gas (LNG). The International Energy Agency forecasts that North America—including Mexico—will become a major LNG exporter to Asia in the second half of the decade, supported by new liquefaction plants and enhanced connectivity with key logistics corridors (IEA, 2023).





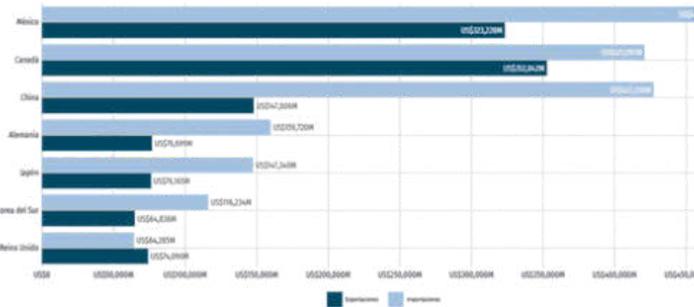
1.3
TRADE
AGREEMENTS
AND INVESTMENT
PROTECTION
NETWORKS

1.3.1 MAIN FREE TRADE AGREEMENTS

UNITED STATES-MEXICO-CANADA AGREEMENTS (USMCA)

The United States-Mexico-Canada Agreement (USMCA) is a free trade agreement that seeks to strengthen the economic and trade relationship between the three countries. Signed on November 30, 2018, entering into force on July 1, 2020, it aims to foster strong economic cooperation between countries. Trade between the United States and the rest of the world has shown variations in recent years. In 2022, it stood out for registering the highest growth in total trade, reaching a value of US\$5.31B. During 2023, a value of U\$5.18B was reached, observing a decrease compared to the previous year (2022), with a variation of 3.85% in total trade.

The United States maintains robust and diversified trade relationships with various countries and trading partners around the world. During 2023, U.S. imports from Mexico were \$475,607 million dollars, consolidating Mexico as its main supplier, with a 15.4% share. For its part, U.S. exports to Mexico reached \$323,228 million dollars, with the Mexican market positioning itself as the second largest export destination, representing 16%, only surpassed by Canada with a 17.5% share in these trade flows. (Secretaría de Economía, 2024).



The treaty is nearing its first review by the governments of Canada, Mexico and the United States. Currently, the USMCA is valid for 16 years (until 2036). In the next review in July 2026, countries will be able to make the decision to extend the current validity of the treaty for an additional 6 years, that is, until 2042. Otherwise, they must carry out annual reviews until their original validity is completed by 2036 (IMCO, 2024).

COMPREHENSIVE AND PROGRESSIVE AGREEMENT FOR TRANS- PACIFIC PARTNERSHIP

The CPTPP is a free trade agreement with a high strategic value for its member countries. Officially called the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, this pact involves the following nations of the Asia-Pacific region: Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, the United Kingdom, Singapore, Vietnam.

Since its implementation in December 2018, the CPTPP has supported the economic growth of its members by reducing trade barriers and promoting both intra-regional investment and trade. This agreement covers various aspects, including the elimination of tariffs, the protection of intellectual property rights and the strengthening of labor and environmental regulations.

For companies incorporated in Mexico, the CPTPP opens up new opportunities for expansion in the Asia-Pacific markets. By facilitating access to these markets and improving economic integration, the treaty boosts competition and innovation. In addition, it provides advantages such as the protection of intellectual property and the optimization of customs processes, thus contributing to a more dynamic and efficient business environment.



MODERNIZED COMPREHENSIVE AGREEMENT BETWEEN THE EUROPEAN UNION AND MEXICO

On 21 April 2018, the European Union and Mexico agreed to conclude a new trade agreement. This agreement, which will be part of a broader modernised global agreement between the EU and Mexico, deepens and broadens the scope of the previous trade agreement that was signed in 1997.

The modernized Agreement significantly expands the access of Mexican and European companies to industrial and agro-industrial markets, relaxes the rules of origin for strategic sectors and streamlines procedures, while facilitating services, telecommunications and digital trade. In addition, it protects geographical indications and handicrafts, offers pioneering support to SMEs, and incorporates chapters on anti-corruption and public procurement, investment protection and reinforces commitments to sustainability, labour rights and the fight against climate change.

The trade pillar of the Agreement substantially boosts an already thriving trade relationship: trade in goods between the EU and Mexico reached €82 billion in 2023, and two-way trade in services reached €22 billion in 2022, making Mexico the EU's second-largest trading partner in Latin America (European Union, 2025).



PACIFIC ALLIANCE

The Pacific Alliance was born as an economic and development initiative between four Latin American nations: Chile, Colombia, Mexico and Peru. One of its main target markets is the one that extends on the Asian Pacific coast, one of the fundamental regions of the global economy.

The Pacific Alliance is the eighth largest economy in the world and the sixth largest exporter worldwide. In Latin America and the Caribbean, the bloc represents 42.9% of GDP and attracts 45% of Foreign Direct Investment flows (International Monetary Fund, 2021).

The Pacific Alliance seeks to be an open and inclusive integration process, made up of countries with similar visions of development and promoters of free trade as a driver of growth. It is a dynamic initiative, with high potential and projection for business, which is oriented towards modernity, pragmatism and political will to face the challenges of the international economic environment.





1.3.2 BILATERAL AGREEMENTS FOR THE RECIPROCAL PROMOTION AND PROTECTION FOR INVESTMENTS

The Agreements for the Promotion and Reciprocal Protection of Investments (APPRIs) are international treaties designed to boost foreign investment flows and ensure a stable and secure business environment. These agreements establish a legal framework that protects investors' interests by providing clear rules on fair competition, property rights, and dispute resolution mechanisms.

One of the main benefits of APPRIs is that they guarantee a level playing field for investors, avoiding discriminatory practices and offering a level playing field. In addition, they ensure the legal protection of investments through rules that reduce uncertainty and mitigate risks associated with regulatory changes or expropriations. These treaties also ensure that investors maintain control over their assets, providing greater long-term stability. In the event of conflicts, the APPRIs include international dispute settlement mechanisms between investors and the State, allowing any violation of the terms of the agreement that affects an investment to be resolved efficiently and transparently.

Mexico currently has 30 APPRIs in force, covering bilateral agreements with 31 key countries and regions, including China, France, Germany, Italy, Spain, the Netherlands and the United Kingdom. This extensive network of treaties positions the country as an attractive destination for foreign investment, offering solid legal guarantees and access to various strategic markets (Government of Mexico, 2018).

1.3.3

INVESTMENT PROTECTION MECHANISM AND DISPUTE RESOLUTION

INTERNATIONAL CENTRE FOR SETTLEMENT OF INVESTMENT DISPUTES

In July 2018, Mexico became the 154th member of the International Centre for Settlement of Investment Disputes (ICSID), the World Bank's international arbitration body. For Mexico, signing the ICSID entry was a strong signal to foreign investors that their ventures will be protected in Mexico (Transnational Institute and Institute for Policy Studies in Washington DC, 2022).

The ICSID Convention provides the institutional and legal framework for the settlement of foreign investment disputes. It was created to facilitate cross-country investment by providing an independent and depoliticized forum for arbitration, conciliation and fact-finding.

ICSID is the world's leading institution dedicated to the settlement of international investment disputes. He has extensive experience in this field, having managed most international investment cases. States have agreed that ICSID will be the forum for the settlement of investor-state disputes in most international investment treaties, as well as in numerous investment contracts and legislation.

ICSID provides for the settlement of disputes through conciliation, mediation, arbitration or fact-finding and is designed to take into account the particular characteristics of both international investment disputes and the parties involved, and thereby maintain a careful balance between the interests of investors and host States. Each case is considered by an independent Conciliation Commission or Arbitration Tribunal, after weighing the evidence and legal arguments presented by the parties. Each case is assigned a team that provides specialized assistance throughout the process. To date, ICSID has administered more than 1000 cases of this nature (ICSID, n.d.).

RELEVANT FIGURES

Mexico is one of the countries most involved in investor-state disputes in Latin America and the Caribbean, ranking third in the region and sixth worldwide. As of December 31, 2021, there were 38 known claims against Mexico, most of which have been resolved under the ICSID mechanism. Of the 38 lawsuits filed against Mexico, 22 have already been resolved, with 11 rulings in favor of investors and 11 in favor of the Mexican state. In financial terms, Mexico has been ordered to pay almost 295 million dollars in 11 cases, which reflects the importance of compliance with investment treaties and the provision of risk mitigation mechanisms for foreign companies. For foreign investors, this context underscores the importance of structuring their investments under sound investment treaties, knowing dispute resolution mechanisms, and adopting regulatory compliance strategies to mitigate risks in the Mexican market (Transnational Institute and Institute for Policy Studies in Washington DC, 2022).



BUSINESS OPPORTUNITIES WITH THE DIFFERENT MARKETS: NORTH AMERICA, EUROPE AND ASIA

Mexico offers a highly favorable environment for foreign investment, supported by a robust investment protection framework and effective dispute resolution mechanisms. The USMCA guarantees the stability and consolidation of trade flows in North America, providing investors with preferential access to one of the most dynamic markets in the world.

At the intercontinental level, the Modernized Agreement between Mexico and the European Union promotes the diversification of exports to Europe, facilitating access to a market with high standards of quality and sustainability. In addition, Mexico's accession to the CPTPP strengthens the relationship with key Asian economies, allowing technology transfer, the expansion of value chains, and entry into high-growth markets.

These agreements, combined with international arbitration mechanisms such as ICSID, provide legal certainty and access to efficient solutions to commercial disputes, making Mexico a strategic destination for foreign investment. This solid and diversified environment increases the global competitiveness of companies established in the country and facilitates access to international financing, consolidating Mexico as a key hub for investment in strategic sectors.

1.4 ENABLERS AND CHALLENGES IN THE INVESTMENT LANDSCAPE



1.4.1 OPPORTUNITIES IN NEARSHORING: RELOCATING SUPPLY CHAINS TO MEXICO

Nearshoring is consolidating itself as a key strategy for the relocation of supply chains in Mexico, driven by its geographical proximity to the United States and a relatively stable regulatory framework. It is estimated that the relocation of operations could increase the region's exports by up to 78 billion dollars, with a relevant impact on sectors such as advanced manufacturing, automotive, technology, and agribusiness (IDB, 2022). Mexico, which is already the world's seventh largest producer of vehicles with an annual production of 3.1 million units, has an installed capacity that allows it to absorb new industrial projects (Bloomberg, 2022).

The concentration of investments is mainly observed in strategic industrial corridors located on the northern border. States such as Nuevo León, Baja California, and Chihuahua stand out for their industrial infrastructure, with approximately 95, 91, and 48 industrial parks, respectively, which facilitates integration into global supply chains (ECLAC, 2023). In addition, north-central regions – such as the Bajío – show important clusters in the automotive and aerospace sectors, favored by an efficient transport network and proximity to key markets.

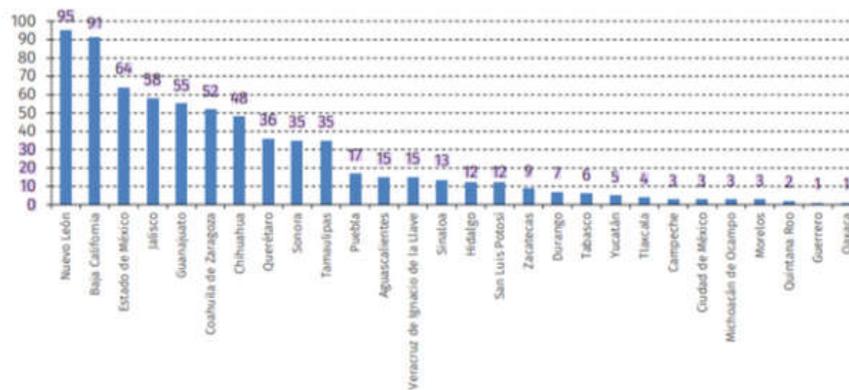
Growth Forecasts of Export Opportunities from Nearshoring by Country

Country	Quick Wins USA	Quick Wins Intra-LAC	Medium-Term Opportunities	Total
Argentina	890.7	1518.0	1497.8	3906.5
Bahamas	33.2	23.8	119.9	177.0
Belize	5.9	6.3	31.7	43.9
Bolivia	50.5	60.8	14.1	125.3
Brazil	4153.0	3144.3	546.8	7844.1
Barbados	9.7	42.2	8.1	60.0
Chile	665.8	516.0	641.1	1822.9
Colombia	1498.5	886.9	188.4	2573.8
Costa Rica	918.1	539.3	87.4	1544.8
Dominican Republic	1362.9	670.2	131.8	2164.9
Ecuador	482.0	285.8	72.8	840.7
Guatemala	436.4	293.8	55.4	785.7
Guyana	23.7	37.0	339.4	400.0
Honduras	745.1	418.7	79.0	1242.8
Haiti	237.2	21.1	13.4	271.7
Jamaica	84.9	25.8	12.5	123.2
Mexico	29679.4	2628.2	2970.0	35278.0
Nicaragua	473.3	78.2	17.0	568.5
Panama	81.3	296.8	171.5	549.2
Peru	792.0	498.0	128.8	1418.8
Paraguay	27.4	107.2	61.0	195.7
El Salvador	686.4	334.3	231.9	1252.6
Suriname	25.0	30.4	2.4	58.5
Trinidad and Tobago	87.9	90.7	297.8	476.5
Uruguay	69.3	369.5	84.0	522.8
Venezuela	218.4	487.7	53.8	759.9
LAC Total	43754.4	13313.7	7024.9	64093.0

The impact of nearshoring is not limited to the modernization of the industry; A strong multiplier effect on employment is also projected. It is estimated that the trend could generate between 2 and 4 million jobs by 2030, which would strengthen both productivity and regional development (IFC International Finance Corporation, 2024). In addition, the improvement in transport infrastructure, the digitization of customs processes and the modernization of ports consolidate Mexico's capacity to absorb large flows of investment. Investment by multinationals such as Volkswagen and Amazon has served as an endorsement for this trend, reaffirming Mexico's position as a strategic investment destination (Wilson Center, 2024).

Integration into the USMCA and macroeconomic stability have also contributed to a favorable environment, where the reduction of logistics times and costs translates into competitive advantages for international companies. In short, nearshoring is configured not only as an opportunity to expand productive capacity, but also as an engine for job creation and the strengthening of industrial infrastructure, projecting Mexico as a central hub in global supply chains (IMF, 2023).

Number of industrial corridors per state



1.4.2 ACCESS TO FINANCING AND INCENTIVES: LOCAL AND INTERNATIONAL INSTITUTIONS

In Mexico, development banks and public funds play a catalytic role in financing energy and infrastructure. At the local level, institutions such as NAFIN, Banobras and Bancomext offer long-term credit lines and state guarantees to finance projects in strategic sectors, especially energy, infrastructure and advanced manufacturing. In addition, the Development Bank of Latin America and the Caribbean (CAF)—one of the main sources of multilateral financing and knowledge generator in the region—signed agreements with Bancomext and NAFIN in May 2022 to renew credit lines for USD 200 million and USD 300 million, respectively. These agreements aim to promote and facilitate the granting of credit, either directly or through commercial banks and non-banking institutions, to improve the productivity of the economy and the competitiveness of Mexican micro, small, and medium-sized enterprises (NAFIN, 2024).

In the international arena, organizations such as the IFC (the World Bank's arm for the private sector) invests in local funds to boost credit to companies: in 2024 it contributed \$30 million as an anchor to a \$200 million private debt fund (Nexus), focused on providing financing to SMEs that want to scale with nearshoring opportunities (IFC, 2024). The IDB has also approved specific loans for the modernization of infrastructure in strategic industrial areas, reinforcing Mexico's position as an attractive destination for long-term investments (IDB, 2022). These agencies not only provide funding, but also offer technical assistance and promote the exchange of best practices in the implementation of complex projects.

In parallel, the Mexican government has implemented tax incentives aimed at projects that meet ESG criteria and adopt clean technologies. These incentives include accelerated depreciation schemes and tariff exemptions, which allow companies to significantly reduce their tax burden in the first years of operation (Natal Law Review, 2025). The adoption of these mechanisms has been inspired by successful international models, such as the "Superbonus" in Italy or the incentives established by the Inflation Reduction Act in the United States, which have been shown to increase competitiveness and the attraction of foreign capital (European Commission, 2023).

The digitization of procedures and administrative simplification complement these efforts, reducing uncertainty and speeding up project approval processes. Coordination between local and international institutions strengthens the financial framework and allows Mexico to mobilize the necessary resources to capture the investment wave projected for 2030. Thus, the synergy between accessible financing and favorable fiscal policies is presented as a comprehensive strategy to convert nearshoring opportunities into sustained economic growth.



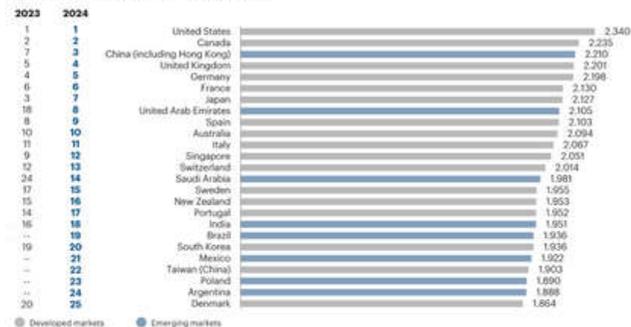
1.4.3 RISKS AND MITIGATION: INTERNATIONAL PERCEPTION, SECURITY AND CORRUPTION

The investment environment in Mexico faces challenges that can affect the confidence of foreign investors, and it is crucial to objectively analyze the main associated risks. In terms of international perception, it is observed that, despite the opportunities of nearshoring, regulatory and political uncertainty has led to only 5.8% of foreign direct investment corresponding to new investments in greenfield, while 86% is concentrated in reinvestments of profits, reflecting a preference for minimizing risks (Bloomberg, 2024). However, it is relevant to note that Mexico re-entered the Top 25 of Kearney's Foreign Direct Investment Confidence Index in 2023, reflecting an improvement in investor sentiment despite persistent security and governance challenges (Kearney, 2023).

Insecurity represents a crucial risk for investment in Mexico. According to the Wilson Center (2024), during the first five years of López Obrador's government, approximately 84,963 incidents of violent hijacking of cargo trucks were recorded, resulting in losses estimated at more than \$415 million annually. With an average of 50 kidnappings per day, these events force companies to

incur high additional costs in security and insurance measures, directly affecting the profitability of their operations and reducing the confidence of foreign investors in the logistics environment (Wilson Center, 2024).

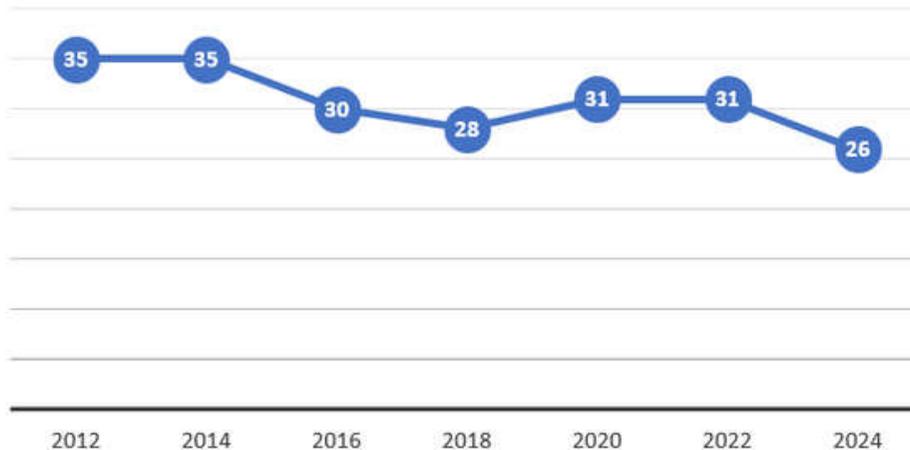
2024 FDI Confidence Index® world rankings

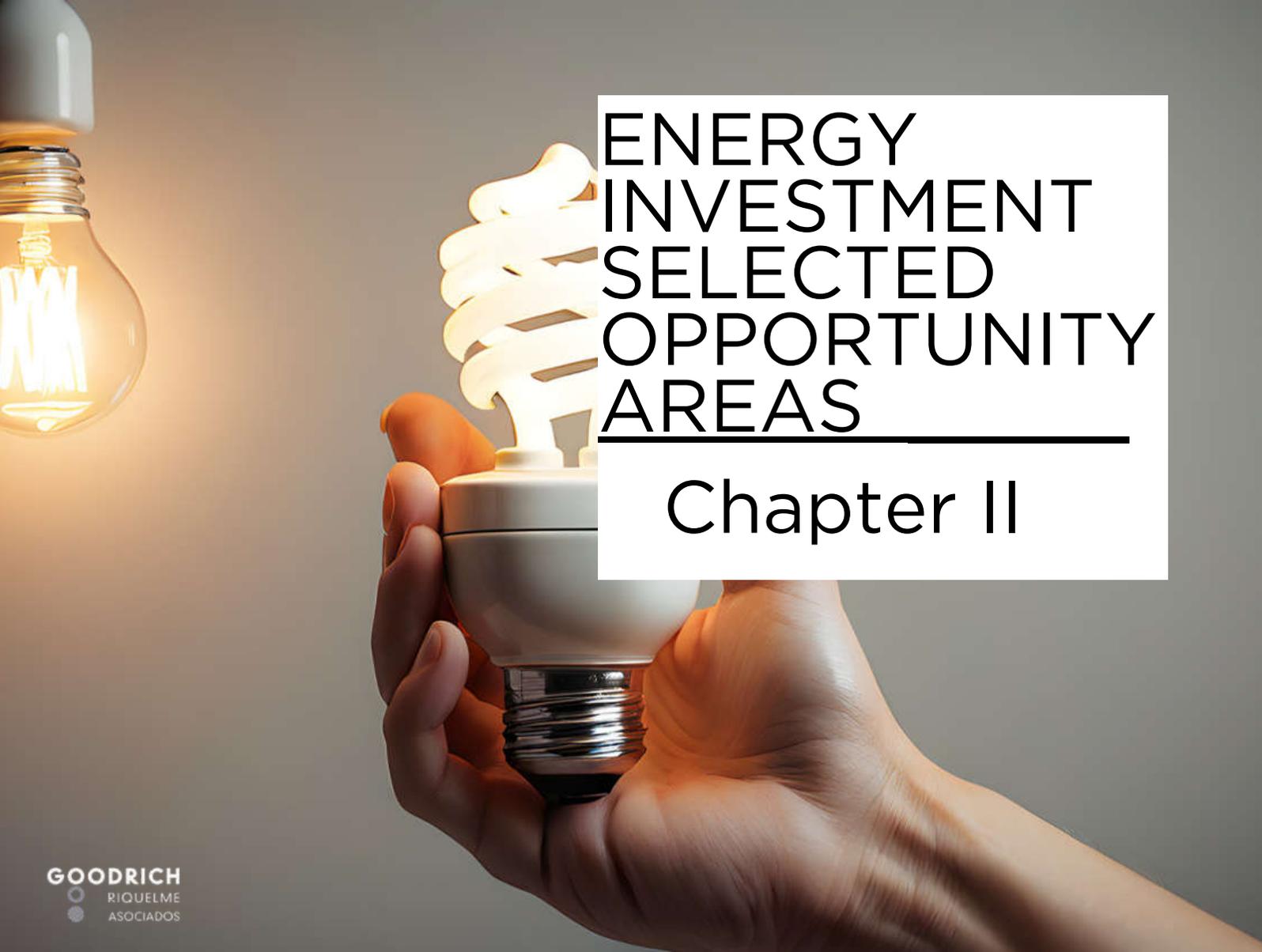


Note: Emerging markets are classified according to the IMF's country classification.
Source: 2024 Kearney Foreign Direct Investment Confidence Index

The risk of corruption remains a major concern. Mexico scored 26 out of 100 in the Corruption Perceptions Index, ranking low compared to other OECD countries (Transparency International, 2024). This indicator affects investor confidence, as it increases uncertainty about compliance with regulations and the possibility of facing irregular practices in the execution of projects. To counter this challenge, measures such as the National Anti-Corruption System and the digitization of administrative procedures have been implemented, in order to reduce discretion and promote transparency (Transparency International, 2024).

Against this backdrop, it is essential that the government and the private sector strengthen governance and the continuity of structural reforms. Policy stability and the effective implementation of security and transparency measures are essential to improve international perception and reduce the "cost of risk" associated with investing in Mexico. Likewise, cooperation with international organizations and the adoption of global standards can serve to mitigate these risks, ensuring a more attractive and predictable environment for foreign investment.





ENERGY INVESTMENT SELECTED OPPORTUNITY AREAS

Chapter II

ENERGY INVESTMENT/ SELECTED OPPORTUNITY AREAS

This chapter aims to provide international investors with a clear and comprehensive understanding of the Mexican energy sector. It seeks to map out the fundamental structures, current dynamics, and areas of opportunity in both traditional and renewable energy. This foundation will help contextualize the investment scenarios explored in the rest of the guide and serve as a stepping stone for practical decision-making.

We begin with 2.1 Overview of the Energy Sector in Mexico, which sets out the legal framework and market structures that shape investment in electricity and hydrocarbons. It highlights the main regulatory milestones—from the landmark 2013 constitutional reform to the 2024 adjustments that reinforce the role of state-owned enterprises while allowing mixed participation. This section also explains the division of the value chains, the allocation of permits, and the changing role of the main regulatory and operational authorities.

2.2 Traditional Energies and the Energy Transition examines the current state of fossil fuels and the growing role of natural gas as a transitional fuel. It also introduces emerging technologies such as CCUS (Carbon Capture, Utilization, and Storage) and the

evolving models of public-private partnerships in hydrocarbons, capturing how these elements contribute to Mexico's decarbonization goals.

The chapter continues with 2.3 Renewable Energies and Sustainable Generation, focusing on clean generation sources, distributed generation, and investments in transmission and distribution infrastructure. It also discusses new frontiers such as hydrogen and green ammonia, reflecting the potential for these technologies to drive Mexico's energy transition.

2.4 Innovation and Emerging Technologies highlights how nearshoring and digital transformation are driving investments in energy storage, electromobility, and data centers. It further addresses how energy considerations intersect with water treatment, desalination, and waste-to-energy initiatives, painting a picture of a dynamic and interconnected landscape.

Finally, 2.5 Strategic Resources for the Energy Transition explores Mexico's rich reserves of critical minerals—particularly lithium—and its role in global supply chains. It also considers how this resource base can strengthen Mexico's position in the green economy.

Taken together, these sections aim to provide a robust introduction to the Mexican energy sector—tracing the evolution of its regulatory and market frameworks and mapping the investment avenues available across value chains and emerging technologies.



2.1 OVERVIEW OF THE ENERGY SECTOR IN MEXICO

2.1 OVERVIEW OF THE ENERGY SECTOR IN MEXICO

Before addressing the substantive terms and opportunity areas explored in this chapter, it is important to outline the regulatory model that enables energy investment in Mexico. From a structural perspective, the foundations of the current legal framework were laid by the 2013 Constitutional Reform, which redefined the roles of the State and the private sector in the development of both the electricity and hydrocarbons industries.

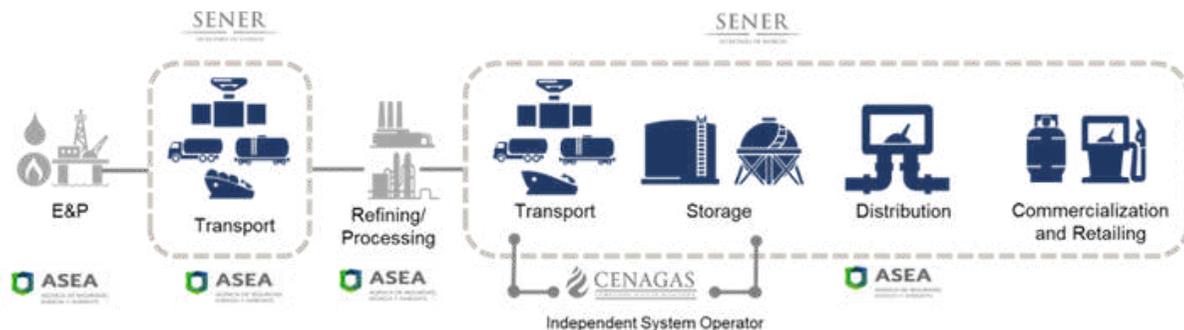
This reform modified Articles 25, 27, and 28 of the Mexican Constitution and introduced a new paradigm under which private participation was allowed across key segments of the value chain, subject to state regulation and oversight. Electricity generation and hydrocarbon exploration and production, previously reserved to state-owned entities, were opened to private actors through mechanisms such as permits, contracts, and regulated market access.

In 2014, a set of implementing laws—including the Electricity Industry Law and the Hydrocarbons Law—established the legal instruments and regulatory architecture under which this new model would operate. These included public tenders, long-term supply contracts, and open access rules for critical

infrastructure such as the national grid and pipeline networks.

As anticipated in Chapter 1, however, the Constitution was reformed once again in 2024, revisiting the same core articles. While this reform does not close the market to private participation, it reaffirms the predominant role of State-owned enterprises in strategic segments and introduces a new model of collaboration in which public entities retain leadership and integrate private actors under defined public-interest mandates. Rather than a return to monopoly structures, the new model envisions a hybrid framework based on structured partnerships between public law entities and private market agents.

Beyond this redistribution of roles, the reform introduces a structural mechanism that redefines how the energy sector operates: the system of Binding Energy Planning. Through the Energy Planning and Transition Law (2025–2030) and its derived instruments, the State now determines the technologies, sequencing, and scale of private involvement according to public energy priorities. This mechanism replaces market spontaneity with an ordered framework linking generation, storage, and hydrocarbons to explicit national goals of energy security and self-sufficiency.



(a) Oil & Gas

The current legal and operational structure of Mexico's oil and gas sector is the result of the 2013 Constitutional Reform, which introduced—by explicit constitutional mandate—private participation across the hydrocarbon value chain. This reform marked the transition from a model reserved exclusively to the State to one in which private and public actors coexist under a regulated framework.

A defining feature of the Mexican regime is that hydrocarbons in the subsoil belong to the Nation. Regardless of surface ownership, all oil and gas resources beneath the ground are the exclusive property of Mexico. Only upon extraction—under specific legal instruments such as contracts or assignments—can title be transferred, allowing their commercial exploitation. This principle, enshrined in Article 27 of the Constitution, underpins the contractual models used for exploration and production.

In upstream activities (exploration and production), the 2013 reform enabled the State to assign areas either directly to PEMEX or, for the first time, to private operators through public bidding rounds. Between 2015 and 2018, these rounds led to 111 contracts awarded to national and international companies under a variety of contract models. 108 of these contracts remain in operation today and form an integral part of the upstream ecosystem.

In midstream and downstream segments—including gas transportation, oil pipelines, storage terminals, and fuel distribution—the reform established a permit-based regime open to private actors. PEMEX retained ownership of most legacy infrastructure, but the law introduced asymmetric regulation and open access rules to promote third-party participation and ensure competitive neutrality.

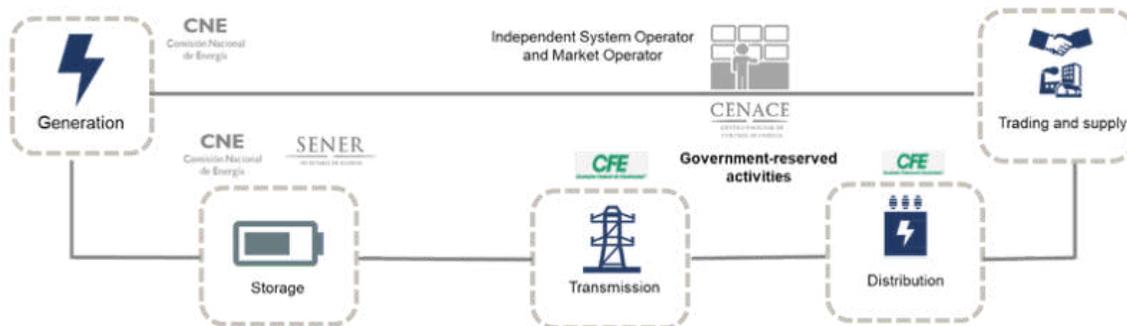
This legal framework gave rise to an ecosystem in which public and private infrastructure operate in parallel under regulated conditions, with the National Natural Gas Control Center (CENAGAS) and SENER playing a central role in coordinating access, system planning, and national inventories.

Since 2025, Mexico has entered a new phase in the legal configuration of its energy sector—one that operationalizes the *Binding Energy Planning* model introduced by the 2024 constitutional reform. While the Constitution still allows private investment, the framework has been recalibrated toward stronger state coordination and a reinforced role for State-Owned Enterprises. As will be discussed later in this guide, such predominance is exercised through specific mechanisms, including the new order of precedence in upstream activities, mixed contractual schemes, and renewed asymmetric prerogatives favoring State participation.

Another relevant institutional shift stems from the dissolution of independent energy regulators under the 2024 constitutional reform. Until recently, Mexico's upstream segment operated under the technical oversight of a specialized agency—the National Hydrocarbons Commission (CNH)—while midstream and downstream activities were regulated by the Energy Regulatory Commission (CRE). In this new framework, SENER assumes direct responsibility over crude oil and gas, particularly upstream, while a newly created decentralized agency, the National Energy Commission (CNE), partly oversees midstream and downstream.

The Energy Planning and Transition Law materializes this new structure, positioning SENER as the head of the sector responsible for conducting national energy policy and coordinating the EPEs (PEMEX and CFE) through the newly established Energy Planning Council. This recentralization of regulatory authority reflects a broader policy trend favoring strategic coordination under the federal Executive and reshapes the institutional landscape for private investors in the hydrocarbons sector.

All these changes do not imply a closure of the market but reflect a rebalancing of roles between public and private actors, aiming to integrate investment under a more coordinated policy vision. The sector remains open to private capital, particularly in midstream infrastructure, LNG, and service provision—though now within a framework that prioritizes strategic alignment with public objectives under the Binding Energy Planning model.



b) Electricity:

A distinctive feature of Mexico's electricity sector is its centralized market model, structured around the Wholesale Electricity Market (MEM) and operated by the National Center for Energy Control (CENACE). Established as part of the 2014 secondary legislation implementing the 2013 constitutional reform, the regulatory framework divides the electricity value chain into (i) generation; (ii) transmission; (iii) distribution; (iv) trading; and, as of 2025, (v) energy storage. The Government retains exclusive control over transmission and distribution, as well as the operation of the National Electric System (SEN), which includes both the national (RNT) and local (RGDs) grids.

Generation and commercialization remain permit-based activities, and until recently, were regulated by the CRE. Following the 2024 constitutional reform and the enactment of the new Electricity Sector Law,

these responsibilities have now been transferred to the CNE, closely overseen by SENER. The CNE is responsible for granting permits, overseeing compliance, and ensuring operational integrity across the market, now under a more centralized regulatory approach.

Participation in the MEM requires formal registration, and CENACE coordinates market activities by projecting demand by node and determining dispatch based on prevailing rules. The system was originally governed by a cost-based economic dispatch model, where lower-cost generators received dispatch priority. However, operational challenges—such as intermittency issues and concerns about maintaining the Government's share in generation—led to the adoption of reliability criteria, which prioritize generation sources that meet specific system stability standards.

This adjustment has altered dispatch order and, in practice, reduced the share of some clean energy sources, despite their lower marginal costs. These criteria are now embedded in the Electricity Sector Law under the principle of "Economic Dispatch subject to reliability and security criteria".

Under the 2024–2025 reforms, the State's role in power generation was further reinforced, with a constitutional mandate requiring that at least 54% of total energy injected into the grid remain under public ownership, primarily through the CFE. Building upon the Binding Energy Planning framework established in the Energy Planning and Transition Law, the 2025–2030 Sectoral Program (PROSENER) and the Electricity Development Plan (PLADESE) now serve as its main operational instruments. These plans translate national energy priorities into specific capacity targets and geographic investment signals, effectively determining where, how, and how much private participation may occur.

The PLADESE details the addition of 28,004 MW between 2025 and 2030—17,009 MW under CFE and 10,995 MW from private projects—and includes a dedicated roadmap for 5,551 MW of energy storage (2,480 MW public and 3,071 MW private). This planning-based approach replaces market spontaneity with regulatory coordination and introduces mixed participation models in generation, which will be further developed through secondary legislation.



2.1.1 MARKET STRUCTURE AND KEY REGULATION

What is the size of the energy market in Mexico (contribution to GDP, exports and imports)?

By 2025, it is estimated that the Gross Domestic Product (GDP) of the energy sector will be approximately 3%, according to data from the Center for Economic and Budgetary Research (CIEP).

On the one hand, energy exports in February 2025 were worth 49,280 million dollars, which represents a decrease of 2.9% compared to the same month in 2024. This rate represents a decrease of 1.7% with respect to non-oil exports and 24.4% from oil exports (INEGI, 2025).

Regarding imports, the cumulative value of total imports in the first two months of 2025 was 96,071 million dollars, of which 77% corresponded to intermediate-use goods, 13.7% to consumer goods - both oil and non-oil - and 9.3% to capital goods. (INEGI, 2025).

How is the budget allocated to the energy sector for 2025-2030 (by SENER, CFE, PEMEX, etc.) distributed?

The Budget assigned to the energy sector, with respect to the Expenditure Budget of the Federation

published in the Official Gazette of the Federation on December 24, 2024, amounts to \$1.08 trillion pesos, equivalent to 11.7% of the total federal budget. (DOF, 2024)

This budget will be allocated as follows: the Department of Energy will have a budget of \$138,307 million pesos. PEMEX will have a budget of \$464,255 million pesos and the CFE for \$545,471 million pesos, which implies an increase of 10.5%, compared to last year's budget. (Congreso de la Unión, Cámara de Diputados, 2024)

How many energy projects are currently active and under development in Mexico? What percentage belongs to renewables vs. fossils?

1. Hydrocarbons Sector

a. Upstream:

i. Crude Oil: Maintain a national production platform of 1.8 million barrels per day (MMbd), prioritizing domestic consumption over exports.

i. Natural Gas: Increase national production to 5,000 million cubic feet per day (MMpcd) to reduce import dependency (which stood at -70% in 2024).

a.Downstream:

i.Refining: Increase crude processing in the National Refining System (SNR) from 56% to over 80% by 2030.

ii.Coking Plants: Complete and operate the strategic coking plants in Tula and Salina Cruz to reduce fuel oil production.

iii.Petrochemicals: Reactivate and strengthen the Morelos and Cangrejera petrochemical complexes.

iv.Fertilizers: Consolidate national production by strengthening PEMEX's fertilizer plants.

2. Electricity Sector (PLADESE 2025-2039 & PND 2025-2030)

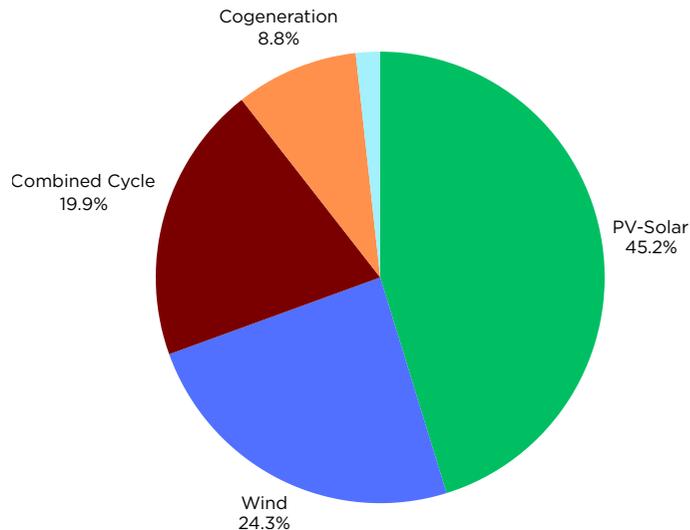
a.Generation Capacity (2025-2030 Plan):

i.Total Requirement: A total of 28,004 MW of new capacity is required by 2030.

ii.State (CFE) Role: The state will add 17,009 MW.

iii.Private Role: Private participants are required to add 10,995 MW (which includes 3,590 MW of projects already in development and 7,405 MW of new requirements).

b.Technological Mix (2025-2030 Additions): The plan requires a specific mix: 44.0% Solar PV, 23.5% Wind, 19.4% Combined Cycle (Natural Gas), 8.6% Efficient Cogeneration, and 1.7% Hydroelectric.



c.Energy Storage (2025-2030 Plan): A total of 5,551 MW of new battery storage systems (SAE) are planned. This is divided between 2,480 MW to be installed by CFE and 3,071 MW by private entities.

d.Transmission & Distribution (T&D):

i.Transmission (RNT): The plan identifies 223 active transmission projects in the pipeline, requiring an estimated investment of 191,750 million pesos.

ii.Distribution (RGD): The plan calls for 97 new substations, 95 substation expansions, and 42,221 electrification works between 2025 and 2030.

What are the projected electricity generation (MW) and emissions reduction goals for 2030?

The official government plans for 2025-2030 outline the required new generation capacity. The 2025-2039 PLADESE establishes a total required addition of 28,004 MW by 2030. This includes the CFE's own strengthening plan of 17,009 MW (which aligns with the 51 projects and 22,674 MW goal cited in the National Development Plan, though the PLADESE figure refines the 2025-2030 portion) and 10,995 MW from private participants. Regarding the emission reduction goals for 2030, Mexico has established ambitious goals, also for the energy transition for 2030 - 2050. The main objectives and strategies are: i) To reduce greenhouse gas emissions by 35%, with the possibility of reaching 40% with the support of financing and international cooperation and ii) To achieve zero emissions by 2050, as agreed in the Paris Agreement. For the energy transition, power generation is projected to be 38% clean energy by 2030, according to the official planning scenario in the PROSENER and PLADESE.

How has foreign direct investment (FDI) in the energy sector evolved over the past five years?

FDI in Mexico has experienced significant variations influenced by factors such as regulatory changes, policies and global market conditions.

During the years 2020-2021, the energy sector experienced significant contractions. This drop was a consequence of the uncertainty generated by the reforms promoted by the administration of Andrés Manuel López Obrador, which limited private participation in electricity generation and prioritized state-owned companies, such as CFE and PEMEX. Regulatory mistrust affected the arrival of new investments, especially in renewable energies (Data México, 2024). In 2022 and 2023, there was a slight recovery in FDI, driven by opportunities associated with nearshoring, as well as interest in strategic energy infrastructure projects. However, this recovery was moderate.

In 2024, FDI in the energy sector fell sharply again, registering a 66% decline from the previous year. The total amount was approximately \$377 million dollars, with a negative figure in new direct investments of -17.5 million dollars. Most of the FDI came from \$243 million in profit reinvestment and \$152 million in intercompany accounts (Cámara de Diputados del Congreso de la Unión, 2024).

Regarding 2025, a moderate recovery is anticipated, supported by climate commitments and the announcement of clearer policies by the new federal administration. However, foreign investors remain cautious about possible constitutional reforms and the need for long-term legal certainty. (Proyectos México, 2025).

2.1.2 KEY ACTORS: POLICYMAKERS AND REGULATORS

What are the main changes that the sector has undergone at the beginning of the six-year term (e.g. the disappearance of CNH and CRE)?

With the new administration of Claudia Sheinbaum, the energy sector has undergone different transformations to reverse the 2013 energy reform, with the reform of articles 27 and 28 of the Constitution, published in the Official Gazette of The Federation (DOF) on October 31, 2024. (Congreso de la Unión, 2024)

On March 18, 2025, secondary legislation was published in the DOF that formalizes the disappearance of the CRE and the CNH, which were created during the 2013 energy reform. (Congreso de la Unión, 2025)

Also, a new decentralized body of the SENER called the CNE was created. It will be responsible for regulating the hydrocarbon and electricity value chain, including generation, transmission, distribution, processing and transportation (Congreso de la Unión, 2025).

The legal status of state-owned companies was reformed to strengthen their strategic role in national development, with this, the CFE will maintain at least 54% of electricity generation, while PEMEX will operate under a new tax regime, which will allow it to retain more income to finance its projects. (Congreso de la Unión, 2025)



Who are the main players in the Mexican energy sector (SENER, CNE, CENACE, CENAGAS, ASEA, PEMEX and CFE)? How do these actors coordinate for the planning, regulation and operation of the energy sector?

Roles of Main Actors in Mexico's Energy Sector

Entity	Main Functions	Coordination
SENER	<p>Central authority responsible for overall energy policy, sector coordination, and strategic planning. Defines national plans for electricity and hydrocarbons, issues import/export permits and supervises technical agencies.</p>	<p>Chairs the Energy Sector Coordination Council, aligning regulatory decisions with the federal administration's strategic vision.</p>
CNE	<p>Replaces the former autonomous CRE. Regulates the entire value chain of electricity and hydrocarbons under SENER's policy guidelines. Issues permits, oversees compliance, and enforces technical, economic, and environmental regulations.</p>	<p>Reports directly to SENER. Its decisions must reflect the State's energy policy and strategic objectives.</p>

PEMEX	Central authority responsible for overall energy policy, sector coordination, and strategic planning. Defines national plans for electricity and hydrocarbons, issues import/export permits and supervises technical agencies.	Chairs the Energy Sector Coordination Council, aligning regulatory decisions with the federal administration's strategic vision.
CFE	State-owned utility in charge of electricity generation (minimum 54% of national generation), exclusive transmission and distribution services, and direct supply to end users. Also active in downstream gas transport and storage.	Represents public ownership in generation, transmission, and distribution, while collaborating with private actors through mixed models or service agreements.
CENACE	Technical and operational manager of the National Electricity System and Wholesale Electricity Market. Responsible for real-time system balancing, dispatch coordination, and interconnection studies.	Operates with technical autonomy but must adhere to SENER's policy guidelines and sectoral plans. Participates in the Council to ensure alignment with energy policy and market reliability.

<p>CENAGAS</p>	<p>Technical and operational manager of the National Electricity System and Wholesale Electricity Market. Responsible for real-time system balancing, dispatch coordination, and interconnection studies.</p>	<p>Operates with technical autonomy but must adhere to SENER's policy guidelines and sectoral plans. Participates in the Council to ensure alignment with energy policy and market reliability.</p>
<p>CENAGAS</p>	<p>Manages and operates the national gas pipeline and storage system (SISTRANGAS). Ensures non-discriminatory access, operational security, and market transparency for natural gas transportation.</p>	<p>Coordinates with SENER and CNE to align infrastructure management with national energy priorities and market development.</p>
<p>ASEA Agency for Industrial Safety and Environmental Protection</p>	<p>Supervises safety and environmental protection in hydrocarbons operations. Issues guidelines, monitors compliance, and authorizes projects in upstream, midstream, and downstream activities.</p>	<p>Collaborates with other sectoral entities to ensure environmental standards and safety practices are embedded in energy development.</p>

2.2 TRADITIONAL ENERGIES AND ENERGY TRANSITION



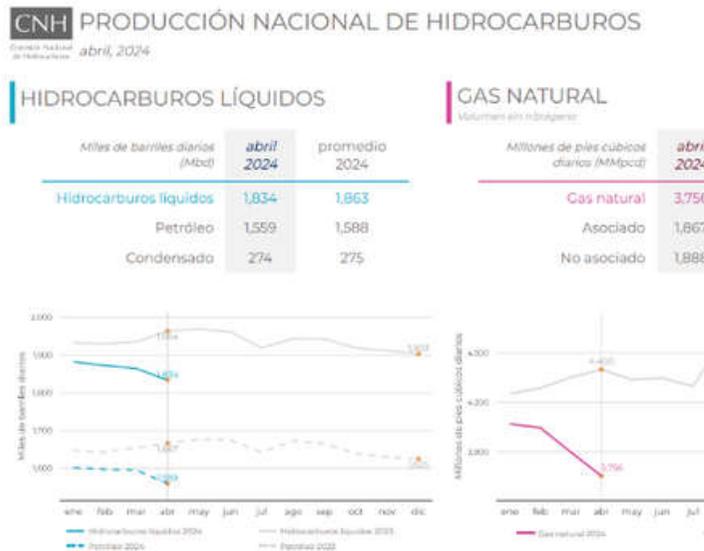
2.2.1 FOSSIL ENERGIES

UPSTREAM

What is the current upstream market size in terms of daily crude oil (bpd) and natural gas (MMcfd) production?

In 2024, the upstream hydrocarbons segment in Mexico produced a daily average of 1,588,000 barrels of crude oil and 275,000 bpd of condensates, totaling 1,863,000 bpd of liquids, according to the National Hydrocarbons Commission (CNH, 2024).

Liquid Hydrocarbons Production (thousands of barrels per day)



	April 2024	2024 Average
Liquid Hydrocarbons	1,834	1,863
Oil	1,559	1,588
Condensate	274	275

Natural Gas Production (volume without nitrogen, million cubic feet per day)

	April 2024	2024 Average
Natural Gas	3,756	3,943
Associated Gas	1,867	2,070
Non-Associated Gas	1,888	1,873

This figure represents a 6% contraction compared to 2015, when pure crude oil extraction reached 1,691,000 bpd. For its part, the Department of Energy (SENER) reported an average of 3,943 MMcfd of natural gas in 2024, of which 2,070 MMcfd corresponded to associated gas and 1,873 MMcfd to non-associated gas, reflecting a slight drop of 2% from the peak of 4,100 MMcfd recorded in 2018 (SENER, 2024).



Historical Liquid Hydrocarbons Production (thousands of barrels per day)

The sum of these flows positions Mexico as one of the main producers of hydrocarbons in the region, with a balance that combines mature fields in the Gulf of Mexico – for example Malaob (320 million barrels) and Zaap (166 million barrels) – with recent onshore developments such as Quesqui (169 million barrels) and Ixachi (61 million barrels) (CNH, 2024).

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Main Hydrocarbon Fields

Despite the maturation of historic complexes such as Cantarell, the incorporation of new developments such as Ixachi and Quesqui has stabilized the overall volume, maintaining Mexico as the second largest crude oil producer and third largest gas producer in Latin America (IEA, 2024).

What proportion of that production corresponds to the State Public Company (PEMEX) versus private operators under assignments and contracts?

In 2024, PEMEX Exploration and Production accounted for 95% of the extraction of liquid hydrocarbons and natural gas in Mexico. Out of a total of 1,834 Mbd of liquids, PEMEX contributed 1,748 Mbd, while private operators added 85 Mbd (5%), distributed in 21,000 bpd of migrations, 9,000 bpd of farm outs and 55,000 bpd of bidding rounds (CNH, 2024). In the natural gas segment, PEMEX E&P also accounted for 95% of total production, with 3,565 MMcfd, resulting from 3,545 MMcfd in assignments and 21 MMcfd in contract migrations. The private sector contributed 190 MMcfd (5%), divided into 92 MMcfd from migrations, 17 MMcfd from farm outs and 82 MMcfd from contracts awarded in previous rounds.

Within the private segment, Eni produced 33,500 bpd, Hokchi Energy 21,465 bpd, Perenco 16,271 bpd, Fieldwood Energy E&P 9,806 bpd (CNIH, 2024).

The Mexican Association of Hydrocarbons Companies (AMEXHI) documents that private participation in crude oil grew from 1.5% in 2018 to 6.2% in 2023, driven by the entry into production of fields awarded in the 2015–2018 rounds (AMEXHI, 2024). Despite this advance, for every barrel produced by private capital, PEMEX extracts approximately 18 barrels, which reinforces the predominant role of the EPE in shaping the upstream market.

Operator	Production in 2024	% of private production
ENI	33,532 bpd	34.6%
Hokchi	21,457 bpd	22.2%
Perenco	16,271 bpd	16.8%
Fieldwood Energy E&P	9,806 bpd	10.1%

How has the 2024 constitutional reform and the Hydrocarbons Sector Law reconfigured the upstream segment in Mexico?

The 2024 constitutional reform in Mexico fundamentally redefined the upstream hydrocarbons sector by reinforcing the state's primacy in the management of strategic resources and by recharacterizing PEMEX as a State Public Company rather than a productive enterprise. This change marked a decisive departure from the competitive, market-driven model of 2013 and reestablished the state's leading role in hydrocarbons development.

The 2025 Hydrocarbons Sector Law, which implemented these constitutional changes, shifted the default mechanism for allocating hydrocarbon resources. Whereas previously the general rule was to award Exploration and Extraction Contracts (with PEMEX competing alongside private operators), the new system prioritizes allocations directly to PEMEX. These allocations can be managed in three ways:

1. Assignments for Own Development, through which PEMEX exclusively exercises Exploration and Extraction activities in the assigned area.
2. The Mixed Development Allocations, in which SENER authorizes PEMEX to invite one or more private participants, who assume up to 60% of the participation while PEMEX retains at least 40% and can choose whether or not to contribute capital, similar to farm-outs with Carry; and
3. Exploration and Extraction Contracts, conceived as an exception and subject to bidding. These contracts were the general rule in the previous regulation.

These reforms, while not closing the door to private investment, redefine the upstream market as a collaborative space under the leadership of the Mexican NOC rather than an environment of free competition, as the scheme proposed in 2013. By privileging allocations - and especially the mixed development model - the legal design requires that practically every strategic project in collaboration with PEMEX, which retains at least 40% of participation, be carried out. This scheme is functionally similar to farm-outs: it allows the NOC to take advantage of external expertise and financing without losing ownership of the deposits. This entire framework is governed by the Binding Energy Planning model, mandated by the 2025 Planning and Energy Transition Law.

MIDSTREAM

How is the network of gas and oil pipelines in Mexico articulated, and who operates it (CENAGAS, CFE, private)?

The SISTRANGAS, operated by CENAGAS, integrates seven interconnected transport systems with a total length of 10,336 km; of these, 8,990 km correspond to the National Gas Pipeline System owned by CENAGAS, which is equivalent to 87% of the high-pressure network in 26 states (CENAGAS, 2023). In addition to this state core, there are smaller private concessions, such as the IEnova (114 km) and Engie (204 km) gas pipelines that operate under CRE permits (CENAGAS, 2021).

At the same time, PEMEX Logística manages the liquids infrastructure: 8,926 km of pipeline, 5,777 km of pipeline, 100 km of fuel oil pipeline, 66 km of turbo pipeline and 278 km of petrochemical networks for crude oil and refined products, supported by 73 storage and dispatch terminals (PEMEX Logística, 2024). In addition, the CFE and other private concessionaires are in charge of minor regional pipelines authorized by the CRE.

What proportion of transport and storage capacity does the public sector control versus the private sector?

In the liquefied fuel storage system, PEMEX Logística operates the 73 authorized terminals for petroleum products (gasoline, diesel, and jet fuel), which is equivalent to 100% of the network of finished product dispatch points (PEMEX Logística, 2024). The private sector manages 33 LP Gas terminals, which represent 31.1% of the 106 total liquefied fuel storage points in the country (SENER, 2024).

In the liquefied natural gas segment, three terminals - Altamira, Manzanillo and Ensenada - with a combined capacity of 2,900 MMcfd, are operated by private concessionaires under an open access regime, configuring 100% of the national regasification capacity (SENER, 2024). These data show that the public sector concentrates all the oil storage points, while the private sector controls about a third of the LP Gas sites and all LNG regasification.

Which CFE flagship projects (gas pipelines and terminals) strengthen domestic energy security?

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What is the installed refining capacity in Mexico (liters/day) and how does the private sector participate in the downstream through coking plants, storage and distribution?

What is the installed refining capacity in Mexico (liters/day) and how does the private sector participate in the downstream through coking plants, storage and distribution? Mexico's installed refining capacity amounts to approximately 1.98 million barrels per day (bpd), equivalent to 314 million liters per day. This capacity is completely in the hands of the State, through PEMEX Industrial Transformation. The National Refining System (SNR) includes six refineries: Cadereyta, Madero, Minatitlán, Salamanca, Salina Cruz and Tula, with a combined capacity of 1.64 million bpd (SENER, 2023). These refineries achieved a crude processing level of 906 Mbd in 2024 . In addition, the Olmeca refinery (Dos Bocas), whose nominal capacity is 340,000 bpd (PEMEX, 2024) , began operations in June 2024. (PROSENER 2025).

There are no private refineries in operation in the country. However, the private sector is involved in the processing of waste products through coking plants and in storage and distribution logistics.

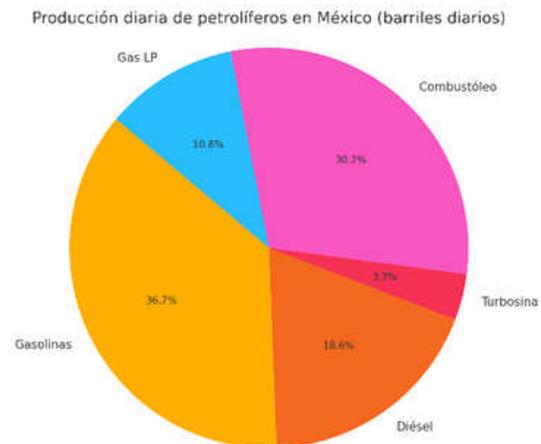
The coking plant in Tula, in partnership with Mitsui, allows the use of fuel oil and will have a capacity of 85,000 barrels per day, equivalent to 40% of the refinery's waste production (PEMEX, 2023). A similar plant is under construction in Salina Cruz.

As for private storage terminals, there are more than 70 projects with an installed capacity of 45.5 million barrels, dedicated exclusively to finished petroleum products, without participation in refining (CRE, 2024; Onexpo, 2023). These terminals allow private companies to import, store and distribute gasoline, diesel and jet fuel.

In summary, 100% of Mexico's crude oil refining capacity is held by PEMEX, while the private sector intervenes only in downstream stages. There are no operating private refineries, although there is significant private participation in logistics infrastructure.

[What mix of products \(gasoline, diesel, jet, petrochemicals\) is obtained and how does it cover national demand?](#)

The blend of refined products in Mexico is dominated by gasoline, fuel oil and diesel, which account for more than 80% of the total volume of petroleum products produced by PEMEX. According to the Energy Information System, the national average daily production of petroleum products was as follows for December 2024:



National production is insufficient to cover domestic demand. During 2023, Mexico imported about 65% of the gasoline and more than 40% of the diesel consumed (CRE, 2024). The imbalance is due both to the limited operating capacity of refineries and to the quality of the crudes processed and the lack of deep conversion infrastructure.

Petrochemicals account for a smaller fraction of production, and their supply has fallen significantly over the past decade. Currently, PEMEX has reoriented its strategy to focus on priority refined products such as automotive fuels and jet fuel.

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[What modernization projects or new refineries are underway and what will be their impact on self-sufficiency?](#)

For the period 2025–2030, the main projects related to the refining system in Mexico are the following:

1. Olmeca Refinery (Dos Bocas): Began operations in 2024 with a projected capacity of 340,000 barrels per day. In April 2025, PEMEX exported its first shipment of ultra-low sulfur diesel due to limitations in domestic logistics capacity (PEMEX, 2025; Reuters, 2025).

2. Coking plants in Tula and Salina Cruz: These facilities are intended to reduce the production of fuel oil and increase the production of light products. The Tula coker plant has an expected capacity of 85,000 barrels per day of waste, while the Salina Cruz coker will be in the testing stage in 2025. Both were financed with a budget of 52 billion pesos (PEMEX, 2025).

3. Rehabilitation of the National Refining System (SNR): Between 2019 and 2024, more than 105 billion pesos have been spent on major maintenance work in the six existing refineries (SENER, 2024). These investments seek to increase the operational utilization of the plants, which has historically remained below 50%.

4. Deer Park Refinery (Texas): Acquired in 2021, it is integrated as part of PEMEX's operating strategy. It has a processing capacity of 340,000 barrels per day, mainly used to serve the U.S. market, although part of its products are destined for Mexico (PEMEX, 2024).

According to federal government estimates, these projects would allow an increase in the national production of gasoline, diesel and jet fuel of up to 343 thousand additional barrels per day, an improvement of around 34% compared to 2020 levels (SENER, 2024)

[What role do biofuels and green hydrogen/amednoniac logistics play in the future downstream?](#)

SENER has pointed out the strategic role of biofuels in reducing emissions in the transport sector, which is responsible for approximately 50% of the consumption of petroleum derivatives in the country (SENER, 2023). A new regulatory framework that encourages the use of bioethanol, biodiesel, and sustainable aviation fuels (SAF) is envisaged, although its implementation has not yet materialized (SENER, 2024).

Among the proposed technologies is the use of 10% bioethanol (E10) as an oxygenator to replace MTBE, an imported additive with negative environmental impacts. This ethanol could be produced with surplus sugarcane, with an estimated capacity to cover up to 31.8% of the national demand for oxygenates (SIAP, 2023). Biodiesel derived from microalgae or waste oils is still in the technical development stage. Biogas and biomethane have been identified as viable alternatives for industrial sectors or intensive transport.

Green hydrogen has potential as an input in industrial processes (cement, steel) and cargo transport, but it faces significant logistical challenges. It requires electrolysis infrastructure, high-pressure or liquid storage, and specialized distribution networks, which do not yet exist in Mexico (SENER, 2023).

Green ammonia, due to its energy density, is considered a possible vector for maritime transport or hydrogen storage, although its production requires large volumes of renewable energy. There is currently no specific regulation for its use or logistics (SENER, 2024).

Factor	Biofuels	Green hydrogen/ammonia
Technological maturity	High (Proven Use)	Decommissioning (pilot phase)
Investment required	Moderate (existing infrastructure)	Registration (requires new logistics)
Impact Horizon	Short term (1-3 years)	Long-term (5-10 years)
Regulation	In development	Absent

In the short term, biofuels are expected to have a greater impact on the downstream sector, while green hydrogen and ammonia will depend on technological advances, cost reductions, and regulatory incentives for adoption.

What are the main regulatory, environmental and competition challenges facing the downstream?

The downstream sector in Mexico faces multiple regulatory, environmental and competition challenges, especially for the private sector. These obstacles have been intensified by recent reforms that changed the legal framework for the energy sector.

First, the constitutional reform of 2024 reestablished the priority nature of the State in strategic activities in the energy sector, reinforcing the role of PEMEX and CFE. This has limited the operating margin of private companies in activities such as the distribution, marketing, and storage of petroleum products (IMCO, 2024).

In addition, the publication of new energy laws on March 18, 2025 was accompanied by the temporary suspension of deadlines and terms in the CRE, and a period of 180 days to issue new regulations, which generates operational and legal uncertainty for private participants.

The authorization of new permits decreased significantly. Between 2013 and 2018, private investments for USD 54.5 billion were approved; between 2019 and 2024, that figure fell to USD 13.4 billion (IMCO, 2024).

On the other hand, international actors have expressed concern about possible violations of the USMCA, in relation to practices that could distort competition or generate discrimination against foreign companies (El País, 2024).

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These factors combined have created a complex environment for the private sector in the downstream, characterized by reduced legal certainty, regulatory constraints, and risks arising from the discretionary application of new energy policies.



2.2.2 NATURAL GAS BOOM



What is the current size of the natural gas market in Mexico in terms of production, consumption, and export?

At the end of 2024, natural gas production in Mexico was 3.53 billion cubic feet per day (Bcf/d). It had a decrease compared to 2023, due to the lack of new discoveries and the decrease in production in existing fields.

Regarding consumption, it is estimated that in Mexico there is an approximate consumption of 8 Bcf/d, 70% of which is imported from the United States.

Finally, in relation to exports, Mexico in mid-2024, exported more than 0.5 billion cubic meters of Liquefied Natural Gas, from the floating liquefaction facility in Altamira, whose raw material is imported from the United States. (Institute for Energy Economics and Financial Analysis, 2025)

Who are the main actors involved in the production and marketing of natural gas in Mexico, both national and international?

Company	Role/Focus	National/International
PEMEX	Production, field development	National
CFE	Import, marketing, infrastructure	National
Grupo Carso	Field/pipeline development	National

Coastoil Dynamic	Gas processing, midstream	National
TC Energy	Pipelines, infrastructure	International
Shell	Upstream, LNG	International
BP	Retail, LNG	International
ExxonMobil	Refining, conventional energy	International
Chevron	Upstream, downstream	International
TotalEnergies	Renewables, LNG	International
New Fortress Energy	LNG exports	International
Engie	Pipeline infrastructure	International
Citla Energy	Upstream	National
Saipem SpA	Engineering, drilling	International
Promotora Energética E3	Engineering, construction	National

While PEMEX remains the central actor in production, the sector increasingly relies on public-private partnerships and international expertise. CFE dominates the import and domestic marketing of natural gas, leveraging alliances with international players and U.S. gas suppliers. International firms bring capital, technology, and operational know-how, particularly in LNG and pipeline infrastructure, complementing the efforts of Mexico's state-owned companies and local firms.

Overall, the Mexican natural gas market blends state dominance with private investment and cross-border integration with the U.S. energy market.

What are the key infrastructure projects for gas exports, such as liquefaction plants or FLNG?

By 2025, Mexico plans to strengthen its strategic platform position for the export of liquefied natural gas, with CALLE projects distributed mainly on the Pacific and Gulf coasts. These developments take advantage of access to U.S. gas and proximity to Asian markets.

The most advanced project is that of New Fortress Energy, called Fast LNG Altamira, which has the collaboration of CFE. This project is the first floating liquefaction unit in Mexico, with a capacity of 1.4 million tons per year. It began operations in mid-2024, exporting its first shipment in September 2024.

Another key project is Energía Costa Azul LNG in Baja California operated by Sempra. It is transforming an old import terminal into an export plant with an initial capacity of 0.4 Bcf/d. The entry into operation is scheduled for mid-2025.

Other significant projects for Mexico are Vista Pacifico LNG, Amigo LNG, and Salinas Cruz LNG, which could add up to 4.5 Bcf/d in their combined capacity.

What impact do the alliances between the CFE and companies such as NFE and MPL have on the development of infrastructure for exports?

The alliances between Mexico's CFE and various national and international firms have significantly accelerated the development of natural gas infrastructure, enhancing both domestic supply security and export potential (Natural Gas Intelligence, 2024). These partnerships have enabled the launch of large-scale projects, expanded pipeline capacity, and strengthened connectivity to key regions—pivotal for Mexico's growing role in the global LNG market.

Key Examples of Strategic Alliances

1. CFE and TC Energy: This partnership has led to the development of the Southeast Gateway offshore pipeline—a 715-kilometer pipeline with a capacity of 1.3 billion cubic feet per day and an estimated cost of US\$4.5 billion (TC Energy, 2022). It connects Tuxpan, Veracruz, with Coatzacoalcos and Dos Bocas, Tabasco, ensuring reliable supply to the Yucatán Peninsula's power plants while also bolstering export capacity (CFE, 2024).

2. CFE and New Fortress Energy: The partnership leverages the Sur de Texas-Tuxpan pipeline to support the Altamira LNG export facility on Mexico's Atlantic coast, ensuring a seamless flow of gas from Mexico's production and import hubs to international markets (Natural Gas Intelligence, 2024).

3. CFE and Engie SA: In collaboration with Engie, CFE is expanding pipeline infrastructure in the Yucatán Peninsula, enhancing domestic energy security and laying the groundwork for future export corridors through southeastern Mexico (CFE, 2024).

4. CFE and Esentia Energ: With an investment of approximately US\$300 million, this partnership is optimizing pipeline capacity and establishing new delivery points to improve supply reliability—critical for both domestic consumption and future exports (MEXICONOW, 2024).

5. CFE and Sempra Infrastructure: The memorandum of understanding (MOU) signed with Sempra includes the Vista Pacífico LNG facility in Topolobampo, Sinaloa, and regasification projects in Baja California Sur. These projects aim to leverage excess gas and pipeline capacity from Texas to Mexico's Pacific coast, supporting LNG exports and regional economic development (Sempra, 2024).

These alliances demonstrate how public-private collaboration is shaping Mexico's natural gas infrastructure landscape. By combining national and international expertise and resources, these projects have expanded pipeline networks and LNG export capacity, reinforcing Mexico's role as a key player in the natural gas sector (Natural Gas Intelligence, 2024; Fitch Ratings, 2024).

What is the role of natural gas as a bridge fuel in energy?

Natural gas continues to play a critical role as a bridge fuel to the global energy transition, facilitating the displacement of more polluting sources such as coal and oil, while increasing the integration of renewable energies.

From an environmental perspective, the combustion of natural gas emits between 40% to 50% less carbon dioxide per unit generated compared to coal; and between 25% and 30% less than oil.

Operational flexibility makes natural gas a reliable backup for the generation of renewable energies such as solar and wind, guaranteeing stability in the electricity grid. (Energía y Sostenibilidad, 2025).

How are projects like Lakach contributing to energy security and regional development?

The development of the Lakach field, led by PEMEX in collaboration with Grupo Carso, seeks to increase national production of natural gas, reducing dependence on imports and strengthening energy security. In addition, this project promotes economic development in the Gulf of Mexico region, generating employment and encouraging investment in local infrastructure. This project also represents a strategic component, to strengthen security and promote regional development.

From a regional perspective, the development of Lakach promises to generate employment and boost the local economy in Veracruz. It also seeks to increase national gas production, which contributes to the energy matrix to achieve greater energy self-sufficiency and thus reduce disruptions in the international market. (ONEXPO, 2025).

What strategies are being implemented to mitigate fugitive methane emissions in the natural gas value chain?

Mexico has adopted regulations to reduce methane emissions in the hydrocarbon industry, including the implementation of best operating practices, continuous monitoring, and leak repair. These strategies seek to minimize the environmental impact associated with the production and distribution of natural gas, providing technological solutions such as regulations and international commitments. (Environmental Defense Fund, s.f.)

Systematic programs such as leak detection and repair, employing advanced technologies, have been established to identify and correct on the spot. Also, upgrading equipment is essential to mitigate emissions. As well as gas capture and reuse, it implements gas recovery systems in oil wells and processing plants, thus producing emission reductions and operational improvement. (Climate and Clean Air Coalition, s.f.)

How does limited strategic storage capacity affect the country's energy security?

The lack of storage infrastructure limits Mexico's ability to manage imbalances in the natural gas system and to respond to emergencies. Additionally, this encourages Mexico to increase dependence on gas imports, which can compromise energy sovereignty and economic stability, in the event of geopolitical tensions or supply disruptions.

What regulatory incentives could accelerate the development of more treatment and storage infrastructure?

The new regulatory framework includes fiscal and financial incentives to encourage investment in energy infrastructure. These incentives seek to attract both national and international investors, facilitating the participation of the private sector in natural gas storage and treatment projects. (Grupo de Industria de Energía, 2025) Likewise, the Plan Mexico presented by the Government of Mexico is a strategy in collaboration with the private sector, with the aim of promoting economic growth.

Given the limited storage capacity of natural gas - currently covering 2.4 days of demand - the Government of Mexico plans to increase it to at least 5 days, through the development of facilities in saline caverns and overwhelmed fields. This is intended to improve the country's energy security and reduce dependence on imports. (Reuters, 2025)



2.2.3 CCUS EMERGING OPPORTUNITIES



Carbon Capture, Utilization and Storage (CCUS) technology encompasses a set of processes designed to reduce CO₂ emissions from industries and power plants. It involves trapping carbon dioxide at its point of origin, transporting it through pipelines or specialized means, and then injecting it into safe geological formations or using it as a feedstock in the manufacture of synthetic materials and fuels. Thanks to CCUS, the hardest-to-decarbonize sectors can dramatically decrease their carbon footprint.

The implementation of CCUS can play a decisive role in the transition to a low-carbon economy, allowing industries to maintain their productivity while meeting international environmental objectives. The adoption of CCUS is presented as a strategic tool in the fight against climate change, facilitating a gradual transition to cleaner technologies, while making sustainable use of existing resources (Global CCS Institute, 2020).

Which sectors in Mexico have the greatest potential for the adoption of CCUS (hydrocarbons, thermal generation, heavy industry)?

In Mexico, the sectors with the greatest potential for the adoption of CCUS are the hydrocarbon industry, thermal generation and heavy industry. The hydrocarbons sector is critical due to the existing infrastructure for oil and gas extraction and processing, which facilitates the integration of CO₂ capture and storage technologies. Thermal generation, on the other hand, represents a considerable source of emissions, especially in power plants that operate with fossil fuels; therefore, the CCUS can contribute significantly to the reduction of the carbon footprint in this subsector.

Likewise, heavy industry - including steel, cement and chemicals - has high potential due to its carbon-intensive processes and the difficulty of reducing emissions through electrification alternatives. The adoption of CCUS in these sectors can be strategic to meet environmental commitments without affecting industrial competitiveness. These sectors are considered a priority due to their high concentration of emissions and the possibility of implementing scalable solutions that are adaptable to local conditions (Global CCS Institute, 2020).



What technological, regulatory, and economic barriers does the adoption of CCUS face in the country?

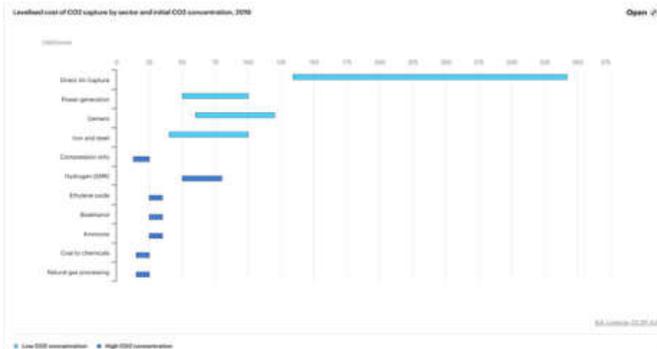
Despite its importance in moving towards cleaner energy sources, the adoption of CCUS has been slow. One of the main obstacles to the expansion of CCUS is its high cost. In addition, climate policies, such as carbon taxes, have not yet reached the robustness needed to make mass implementation of CCUS economically viable.

The cost of capturing CO₂ varies considerably depending on the emitting source. In industrial processes that generate highly concentrated CO₂ streams, such as ethanol production or natural gas processing, capture can cost between \$15 and \$25 per ton of CO₂. However, in activities with more diluted emissions, such as electricity generation or cement manufacturing, the cost can range from \$40 to \$120 per ton. Direct capture of CO₂ from the air is, for now, the most expensive option, although it is expected to play a key role in carbon removal in the future. While some carbon capture technologies are already commercially available, others are still under development, contributing to cost variability.

There is a lot of scope to reduce costs along the entire value chain of CCUS, especially since many of its applications are still in the early stages of commercialization. Experience has shown that, as the market grows, technology advances, financial costs decrease and economies of scale are generated, prices tend to fall.

This pattern has already been observed in the development of renewable energies in recent decades.

In fact, significant cost reductions have already been achieved in large-scale CCUS projects. For example, the cost of CO₂ capture in the power sector has decreased by 35% with the transition from the first to the second large-scale commercial facility. This trend is projected to continue as the market continues to expand (IEA, 2021).



What lessons can be learned from international markets where CCUS has been successfully implemented?

CCUS is positioned as an essential component in global carbon management strategies. Its importance is recognized worldwide, especially the rapid advances in North America and Europe. The policies of these countries and investment in CCUS technologies and projects have marked a momentum that extends to other places. Initially, the United States and some European nations provided the necessary support to accelerate private investment in CCUS, followed by Japan, and by state-owned companies in the Middle East and China. Today, even Southeast Asian nations are beginning to promote CCUS through their state-owned oil companies, as part of their transition to net-zero emissions.

There is also a conflict between the ability of these taxes to promote behavioral change and their revenue-generating potential, which, together with selective enforcement, can result in inefficient resource allocation and equity concerns.

Another interesting trend is the Carbon Border Adjustment Mechanism (CBAM), introduced by the European Union to balance competition between industries subject to carbon prices and those in countries without similar policies. The CBAM imposes a carbon tax on imports based on their carbon content, initially applied to emissions-intensive sectors such as aluminum, cement, electricity, fertilizers, iron, steel and hydrogen. This mechanism, which includes a transition period until 2026, seeks to incentivize cleaner production methods, reduce carbon leakage and generate income to reinvest in climate initiatives, although it faces challenges such as the complexity of measuring emissions abroad and risks of negative impact on exporters in developing countries.

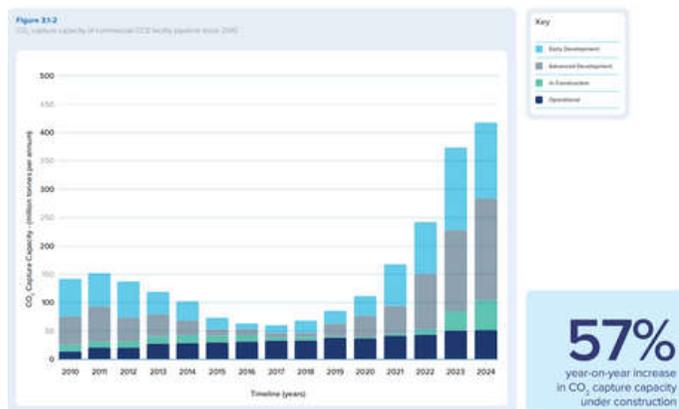
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Continued and strong political support from leading countries has fueled the growth of this industry, and collaboration becomes key to accelerating its development. Bringing together governments, the private sector and research institutions helps break down barriers, reduce costs and encourage investment. Governments, in particular, play a crucial role in supporting research and development of new carbon management technologies, driving investments, and solving legal and regulatory challenges.

In addition, collaboration extends to various forms, such as public-private partnerships for CCUS projects, joint work between governments and researchers to establish regulatory frameworks, and cooperation between companies to build value chains in this area.

2024 has witnessed significant growth in the development of CCUS facilities. There are currently 50 facilities in operation (3 of which are projects dedicated to transport and/or storage) and 44 under construction (7 of them transport and/or storage). As of July 2024, the pipeline includes 628 projects, a year-on-year increase of 60% (Global CCS Institute, 2024).



How is Mexico positioned in the context of global commitments to decarbonization and climate financing?

Mexico continues to reaffirm its commitments to the Paris Agreement, recognizing the urgent need to globally reduce emissions of Greenhouse Gases and Compounds by 43% by 2030 and achieve emissions neutrality by 2050.

This commitment is expected to be materialized through concrete measures aimed at accelerating the decarbonization of economies and facilitating an equitable energy transition. At the national level, the Mexican government is formulating sectoral decarbonization pathways to increase the ambition of its Nationally Determined Contribution (NDC), which will be reviewed in 2025.

At COP 29, Mexico reported that the updated NDC will incorporate investments in transmission and generation infrastructure, a transition program to renewable sources, and energy efficiency measures. In addition, the mitigation potential of other priority initiatives of the new administration will be included, such as the launch of the most ambitious circular economy project globally; investments in the recovery, remediation and protection of natural heritage - with the goal of safeguarding 30% of the national territory by 2030; the development of large-scale projects in rail transport, both freight and passenger, with an intermodal approach; and the electrification of transport, with special emphasis on public transport (Government of Mexico, 2025).

In conclusion, Mexico is in a phase of reaffirmation and adjustment of its climate commitments, framed in the objectives established by the Paris Agreement. The country is looking to implement a series of strategies and measures aimed at strengthening its Nationally Determined Contribution, through investments in energy infrastructure, transition programs to renewable sources, and various mitigation initiatives in critical sectors. The review of these commitments in 2025 and the actions announced in international forums mark a trend towards aligning domestic policies with global demands on emissions reductions and climate finance.

2.2.4 PUBLIC-PRIVATE PARTNERSHIP MODELS IN HYDROCARBON PROJECTS



What are the most relevant public-private collaboration projects in exploration, production and development of energy infrastructure in Mexico?

In Mexico, the most relevant public-private partnership projects in the energy sector focus on the exploration and production of hydrocarbons in deep and shallow waters, as well as on the development of infrastructure for the transportation and storage of natural gas.

In terms of production, the Trion Field, located in the deep waters of the Gulf of Mexico, stands out. It is being developed under a co-investment scheme between PEMEX and Woodside Energy, with a projected investment of 10,400 million dollars and an estimated date of entry into operation for 2028. Another emblematic project is the Zama Field, discovered by Talos Energy and operated by PEMEX following a resolution by SENER. It is one of the largest shallow water discoveries in decades, and its joint development is in the operational and contractual alignment phase. Additionally, private operators such as ENI, Hokchi Energy, and Fieldwood-Petrobal are key contributors to national production (PROSENER 2025).

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In the natural gas segment, the Lachach Field stands out, reactivated by PEMEX in alliance with Grupo Carso for the exploitation of deepwater reserves, with an estimated investment of 1,000 million dollars. In addition, Carso acquired 50% of the Ichalkil and Pokoch fields, originally developed by Fieldwood and Petrobal.

In terms of infrastructure, efforts are focused on expanding the national gas pipeline network and planning underground storage projects.

SENER's "Natural Gas Strategic Plan" identifies the urgency of having backup infrastructure to strengthen the country's energy security (SENER, 2024).

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Project	Type	Company(s) involved	Estimated Investment (USD)
Trion	Exploration/ Production	PEMEX - Woodside Energy	10,400 million
Zama	Exploration/ Production	PEMEX - Talos Energy	In definition
Lakach	Natural gas	PEMEX - Grupo Carso	1,000 million
Ichalkil & Pokoch	Exploration/ Production	Grupo Carso - Petrobal/Fiel dwood	1,200 million

What role do these projects play in the national hydrocarbons and natural gas strategy, and how are they integrated into PEMEX and SENER's plans?

Public-private collaboration projects in hydrocarbons and natural gas are directly linked to the objectives defined in the National Hydrocarbons and Natural Gas Strategy 2024-2030 and in the operational plans of PEMEX and SENER. This strategy sets specific goals to achieve energy self-sufficiency, sustain national production and reduce dependence on imports.

In terms of exploration and production, projects such as Zama and Trion seek to increase the production of light crude, essential to improve the balance of blends with heavy crude oil and optimize both export and domestic processing. Trion, operated by Woodside Energy in partnership with PEMEX, and Zama, where collaboration with Talos Energy is expected, are considered to be on the goal of maintaining a sustained production of 1.8 million barrels per day of liquids (SENER, 2024).

The Lakach field, reactivated with private investment, is aimed at the production of natural gas for LNG and potential integration of blue hydrogen, with floating infrastructure. This field is part of the objective of reaching 5,000 million cubic feet per day of gas and reducing imports (PEMEX, 2025).

In infrastructure, the Cinta Costera and Interconexión Sur projects aim to transport 2,600 MMcfd from Texas to consumption centers, while underground storage projects in Veracruz and Tamaulipas, promoted in collaboration with entities such as BlackRock, seek to guarantee energy security during peaks in demand.

What have been the results and operational challenges observed in these partnerships in terms of investment, production and security of supply?

In investment, the CFE reported in 2024 an expenditure of 2,149 million dollars in six operational projects (2,019 MW), including combined cycles and solar with storage. An additional investment of US\$4,616 million is expected by 2028 to develop nine generation projects (5,766 MW) (CFE, 2024). PEMEX, for its part, has improved its operating margin thanks to the reduction of the Shared Profit Right (DUC) from 65% in 2019 to 30% in 2024, facilitating co-investment schemes such as in Lakach and Zama, although its debt of 106 billion dollars continues to be a limiting factor (PEMEX, 2024).

In terms of security of supply, although the Cinta Costera gas pipeline transports up to 2,600 million cubic feet per day, underground storage projects in Veracruz and Tamaulipas show limited progress. Mexico continues to depend on imports for ~70% of the natural gas consumed, which maintains a high exposure to international prices (SENER, 2024).

What regulatory and economic barriers do public-private partnerships face in the sector?

Public-private partnerships in the energy sector face contractual, financial, and regulatory challenges that limit their scalability and efficient execution. From the contractual level, the Hydrocarbons Sector Law 2025 allows mixed development allocation schemes with a minimum participation of 40% by the State (through PEMEX) in exploration and production activities.

In financial terms, PEMEX maintains a debt load of more than 97 billion dollars, which restricts its ability to finance large projects without external support (PEMEX, 2024). Although the reduction of the Shared Utility Right (DUC) has improved its operating flow, dependence on private investment persists.

On the regulatory front, the 2024 Energy Reform consolidated the role of the State as the dominant operator, which has generated uncertainty about the stability of permits, the continuity of previous contracts and the discretionary application of authorization criteria by the authorities. In addition, specific regulations for new strategic activities such as underground gas storage or LNG and hydrogen production are still pending.

How can PEMEX's interests align with those of the private sector to maximize the efficiency and profitability of these joint projects?

Alignment between PEMEX and the private sector depends on the implementation of contractual, financial, and operational mechanisms that distribute risk, ensure proportional returns, and accelerate decision-making.

Contractually, the new mixed contracts of 2025 contemplate staggered participation models, where PEMEX contributes explored assets (wells, seismic, infrastructure) and private companies finance development and production. This allows to reduce the initial investment risk and accelerate the time to monetize reserves. The contracts also include adjustment clauses, such as price indexation to Maya/Brent crude oil and five-year reviews of operational efficiency, especially in emissions (SENER, 2025).

From the financial approach, risk-sharing structures have been introduced, such as sovereign guarantees for projects greater than USD 500 million (Lachach case), operational contingency funds, and dynamic equity, where the private partner increases participation if it exceeds production targets. These schemes seek to balance incentives without compromising state control.

The Public Company Law 2025 grants flexibility to decide the level of private participation (minimum 40% in exploration contracts), guarantees legal certainty and provides for international arbitration in the event of disputes. In addition, the DUC rate is reduced to 20% for marginal fields, encouraging their development with external capital.

Together, these mechanisms have facilitated a new generation of projects: 17 mixed contracts, of which 14 are operated by PEMEX and financed by private companies, with an expected production of an additional 66,000 barrels per day and a mobilization of USD 300 to 500 million in initial investment by December 2025.

2.3 RENEWABLE ENERGIES AND SUSTAINABLE GENERATION CLEAN GENERATION

The image shows two workers in safety gear (hard hats and high-visibility vests) standing on a solar farm. They are looking at a tablet together. In the background, there are several wind turbines and a clear sky, suggesting a clean energy environment. The overall scene is brightly lit, likely during sunrise or sunset.

2.3.1 CLEAN ENERGY GENERATION

What is the current installed capacity of solar, wind, thermal and other renewable generation in Mexico vs. fossil fuels?

According to the 2025-2039 PLADESE, as of December 2024, the total installed capacity of the National Electric System was 90,543 MW. Of this capacity, 36.9% (33,441 MW) corresponds to clean technologies, while 63.1% is conventional. In terms of actual electricity generation (GWh) in 2024, the SEN injected a total of 352,305 GWh, of which 6,777 GWh corresponded to photovoltaic distributed generation (DG-FV). Of that global volume, 23.4% (82,426 GWh) came from sources classified as clean energy and the remaining 76.6% was generated with fossil fuels.

Within the clean energy category, solar, wind, hydroelectric, geothermal, efficient cogeneration and other technologies such as regenerative braking and batteries are grouped together. However, when including hydroelectric plants - which do not emit CO₂ on site but do imply environmental impacts associated with reservoirs - this percentage does not equate to net zero emissions in practice.

This generation balance reflects the current dependence on fossil fuels - with over three-quarters (76.6%) of the electricity produced in 2024 - and underlines the starting point for the transition: deploying more renewable capacity and storage systems, in addition to optimizing the use of high-efficiency natural gas-fired plants, in line with the goal of increasing clean participation to 38% and reducing GHG emissions by 2030 (Paris Agreement, PLADESE 2025-2039).

What goals has the government set to increase the participation of clean energy in the energy matrix by 2030?

The official 2025-2030 PROSENER and the 2025-2039 PLADESE establish a binding national goal of achieving 38% of electricity generation from clean energy sources by 2030 (planning scenario). To meet this, the PLADESE mandates the addition of 28,004 MW of total capacity between 2025 and 2030. This new capacity is divided into 17,009 MW to be developed by the State (CFE) and 10,995 MW by private participants. The required 2025-2030 technological mix is dominated by renewables: 44.0% Solar PV, 23.5% Wind, 8.6% Efficient Cogeneration, and 1.7% Hydroelectric.

How can current incentives improve the competitiveness of solar and wind projects compared to conventional sources?

Tax and regulatory incentives reduce the cost gap between renewables and thermal by accelerating return on investment and decreasing upfront spending. The deduction of 100% of the investment in solar panels for legal entities (Article 34 ISR) allows the cost of a project to be amortized in a single year, which significantly shortens the payback period compared to conventional plants, which require decades to reach the break-even point. In addition, the VAT exemption on renewable equipment reduces the initial outlay by around 16%, making quotations for clean generation contracts more competitive against fossil fuels.

Regulatory simplification complements these incentives by facilitating the connection and operation of new projects. For distributed generation, the permit-exempt power limit was raised from 0.5 MW to 0.7 MW, and projects under the interconnected self-supply model of up to 20 MW can be processed through an accelerated procedure, reducing interconnection times and costs. In the large-scale area, private participation may reach up to 46% of grid injection, with expectations of adding 7,405 MW of new private capacity requirements by 2030, which attracts capital by providing legal certainty and clear rules for interconnection contracts.

To execute this new model, alongside the publication of the PLADESE 2025-2039 on October 17, 2025, the federal government issued a priority request for permit applications for private investment. This call details the specific capacity needs required by the plan, totaling 5,970 MW, broken down by technology (3,790 MW Photovoltaic and 2,180 MW Wind) and by specific transmission region. This process is designed for the rapid expedition of permits, aiming to complete evaluation and approval in just two months. It is crucial to note that this specific priority call explicitly excludes self-consumption, cogeneration, and mixed-development schemes, focusing solely on utility-scale projects to meet the binding national plan.

Furthermore, new "Energy Justice" programs, such as the "Rooftop Solar for Welfare" program, will channel public funds (FSUE and FOTEASE) into residential solar installations in vulnerable communities, creating new markets for suppliers and installers. These incentives level the playing field, allowing solar and wind projects to compete with traditional thermal plants on leveled energy costs and thus accelerate their deployment in the domestic market.

What opportunities does electricity storage offer for the expansion of renewable projects aimed at providing energy to industrial corridors?

Electricity storage acts as a technical and economic pillar for integrating renewables into industrial corridors. From the point of view of grid stability, backup batteries ensure that solar and wind intermittency does not compromise industrial supply. CFE projects such as Puerto Peñasco phase 1 (580 MW of storage) and the new national goal to install 5,551 MW of battery storage by 2030 (2,480 MW by CFE and 3,071 MW by private entities) show compliance with the new legal requirement that intermittent projects must have their own backup or pay the State for it. This backup is critical in industrial corridors where a power outage can interrupt high-precision processes, and batteries allow operation to be maintained even if variable generation decreases.

On the economic front, hybrid solar plus battery systems open up the opportunity to optimize revenues by selling energy during peak hours, when marginal prices are higher. They also reduce the dumping of surpluses in areas with network congestion, by storing the excess and releasing it according to demand. In addition, the combination of batteries with planned green hydrogen pilot projects and the installation of smart transmission lines strengthen the capacity of these corridors to absorb cleaner generation and feed critical supply chains with reliable energy.

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Electricity storage acts as a technical and economic pillar for integrating renewables into industrial corridors. From the point of view of grid stability, backup batteries ensure that solar and wind intermittency does not compromise industrial supply. CFE projects such as Puerto Peñasco phase 1 (574 MW of storage) and the goal of 1,315 MW of storage show compliance with the 30% support requirement for new developments, as established by the National Energy Strategy. This backup is critical in industrial corridors where a power outage can interrupt high-precision processes, and batteries allow operation to be maintained even if variable generation decreases.

On the economic front, hybrid solar plus battery systems open up the opportunity to optimize revenues by selling energy during peak hours, when marginal prices are higher. They also reduce the dumping of surpluses in areas with network congestion, such as the Isthmus of Tehuantepec, by storing the excess and releasing it according to demand. Success stories in the private sector, such as Ava Energy's projects, show that storage facilitates the supply of stable tariffs to large industrial consumers. In addition, the combination of batteries with green hydrogen pilot projects and the installation of smart transmission lines (e.g., Sonora-Centro at 400 kV) strengthen the capacity of these corridors to absorb more clean generation and feed critical supply chains with reliable energy.

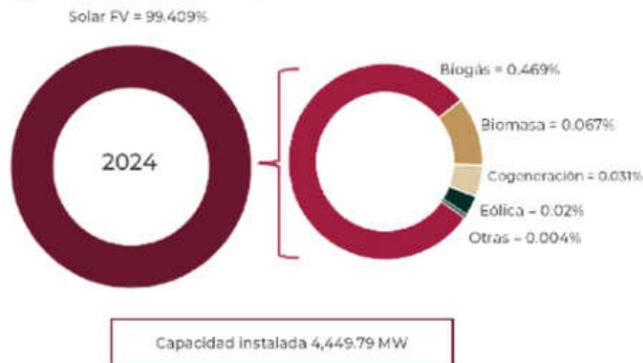


2.3.2 DISTRIBUTED GENERATION

What percentage of the installed capacity in Mexico corresponds to distributed generation, and how has it grown in the last five years?

According to the 2025-2039 PLADESE, distributed generation represents a growing proportion of installed capacity in Mexico. At the end of 2024, the cumulative capacity of DG was 4,449.79 MW, equivalent to 3% of the total installed capacity in the country.--

The growth of DG has been sustained and exponential, growing from approximately 1,540 MW in 2020 to 4,423 MW by 2024. The predominant technology is photovoltaic, with more than 99.4% of the installed capacity, distributed mainly on residential rooftops, shops and small industries. The regions (GCRs) with the highest penetration are Occidental (which includes Jalisco) with 36.5% of capacity, and Noreste (which includes Nuevo León) with 16%.



The 2025-2039 PLADESE presented two scenarios for the development of DG towards 2039. In the baseline (planning) scenario, installed capacity is projected to reach 14,432 MW. In an alternate (amplified) scenario of accelerated growth, DG could reach 20,461 MW by 2039.

What challenges do developers, households, and small businesses face in implementing distributed generation?

Technically, the national electricity infrastructure has significant limitations. In 2024, the network operated with average losses of 12.3%, which reflects inefficiencies in transmission and distribution. Many substations are overloaded, making new interconnections difficult in densely populated urban areas. In addition, the lack of advanced metering systems restricts the operation of bidirectional flows, as there are only pilot projects for smart meters in some regions.

Economically, the initial cost of photovoltaic systems - estimated between \$50,000 and \$150,000 MXN for single-family homes - represents a considerable barrier to entry. Although there are programs such as the Trust for Electric Energy Saving (FIDE), the new 2025-2030 administration is channeling funds via FOTEASE and FSUE to social programs like "Rooftop Solar for Well-being" to address this barrier in vulnerable households.

At the regulatory level, ambiguous technical standards are observed on connection and power quality requirements, which can lead to problems such as harmonic distortion in the grid. Likewise, interconnection processes can be bureaucratic, with a lack of transparency in expansion costs and response times by suppliers.

What economic and regulatory incentives are in place to encourage adoption?

The Electricity Sector Law (DOF, 2025) raised the threshold for distributed generation without prior permission from 0.5 MW to 0.7 MW, allowing more projects to benefit from simplified interconnection schemes. The net metering scheme allows users to offset consumption with the surplus energy they inject into the grid. In tax matters, Article 34 of the Income Tax Law allows legal entities to deduct up to 100% of the investment in renewable systems in the first fiscal year (DOF, 2023). At the local level, some states offer subsidies, soft loans or logistical support, although these vary in coverage and application.

How could distributed generation transform Mexico's energy matrix towards a more resilient and sustainable model?

Distributed generation has the potential to structurally modify the way Mexico produces, consumes, and manages electricity. By generating electricity at the point of consumption, transmission and distribution losses are reduced. This change progressively decentralizes the electricity grid. Unlike the traditional model, in which large plants generate energy that is transported over long distances, DG allows for local consumption of locally produced energy, which not only reduces losses but also frees up capacity in the National Transmission Network. To the extent that the RNT and the regional networks are unsaturated, it will be possible to improve the energy efficiency of the system as a whole and reduce bottlenecks that currently limit the expansion of new large-scale renewable plants.

In addition, as it is based almost exclusively on renewable technologies – such as solar photovoltaic – DG contributes directly to the country's decarbonization

DG contributes directly to the country's decarbonization goals, by avoiding the burning of fossil fuels in the electricity sector and reducing greenhouse gas emissions.

According to the 2025-2039 PLADESE, DG's installed capacity could reach 14,432 MW by 2039 (planning scenario) or up to 20,461 MW (amplified scenario), depending on the growth scenario. In the high scenario, this would be equivalent to over 10% of the projected 181,806 MW national installed capacity, which would consolidate DG as a relevant pillar of the energy transition.

2.3.3 INVESTMENT IN TRANSMISSION AND DISTRIBUTION INFRASTRUCTURE

What is the current capacity of the electricity grid in Mexico, and what key needs are sought to be met with the projected investments?

The growing demand for electricity, driven by population growth, industrialization and the electrification of rural areas, requires significant investments. Currently, the net installed capacity of the National Electric System reaches approximately 98,045 MW (as of 2024, including DG), covering both distributed generation and plants in operation. Currently, the expected installed capacity by 2039 is estimated at 181,806 MW.

Energy policy will seek to promote the efficient use of energy, promoting saving measures and the consumption of highly energy-efficient products. Likewise, the will focus on strengthening the planning of the sector, guaranteeing access to electricity in communities without service, modernizing public transport with sustainability criteria and establishing clear rules to attract private investment (National Development Plan, 2025).

In the future, it is considered necessary to move towards an Intelligent Electricity Network (REI), which aims to support the modernization of the National Transmission Network (RNT) and the General Distribution Networks (RGD) to contribute to improving the efficiency, reliability, quality and safety of the SEN with the incorporation of advanced measurement, monitoring, communication and operation technologies. among

that facilitates open and non-unduly discriminatory access to RNT and RGD, and allows the integration of clean and renewable energy sources that promote the reduction of costs in the electricity sector (PRODESEN, 2024).

How can foreign investors participate in the development of this infrastructure through contracts with the CFE?

The 2025-2030 PLADESE outlines a required addition of 28,004 MW, with the CFE expected to add 17,009 MW and private investors expected to contribute 10,995 MW. It is specified that there are three private participation schemes for energy generation: i) one through long-term contracts that may be tendered, in which the delivery of energy and capacity to the CFE is allowed; ii) through the new figure of "mixed producers", who will participate with the CFE, which will have at least 54% of the investment with transparent schemes that will be tendered and; iii) as generators for the electricity market, meeting reliability and backup requirements.

Likewise, in relation to projects to be developed in the transmission of electricity, it is estimated that the Mexican Government will tender a portfolio of 223 active projects requiring an estimated investment of 191,750 million pesos (approx. USD 10.6B).

In terms of distribution, it is expected that 97 new substations, 95 substation expansions, 6,875 network modernization works, and 42,221 electrification works will be carried out to strengthen the General Distribution Networks, representing an investment of 14,309 million pesos (approx. USD 795M) between 2025 and 2030.

2.3.4 HYDROGEN AND GREEN AMMONIA

What is the projected production capacity of hydrogen and green ammonia in Mexico for the next five years?

According to the Mexican Association of Hydrogen and Sustainable Mobility, 24 green hydrogen projects are currently being developed in 13 states of Mexico, with a total investment of approximately \$21 billion dollars. These projects have the potential to produce about 196,707 tons per year of green hydrogen by 2030, backed by an installed capacity of 4,104 MW in solar and wind generation. (Noticias de Hidrógeno Renovable, 2025)

As for green ammonia, Mexico anticipates a production of approximately 970,000 tons per year by 2030, this derives from the 24 projects mentioned above. (Asociación Mexicana de Hidrógeno, 2024)

Which regions of the country have the most favorable conditions for the development of these projects?

The best areas of the country for the development of hydrogen and green ammonia projects are the regions that cover the States of Oaxaca, Veracruz, Campeche and Yucatán, known as the Isthmus of Tehuantepec and the Yucatan Peninsula. These areas have a high potential in wind and solar energy. The Trust for the Development of the South-Southeast (FIDESUR) promotes the creation of energy projects, with the aim of producing green hydrogen for domestic consumption and export (Energía a Debate, 2024).

The area of Sonora and Chihuahua also offers conditions for the production of green hydrogen, due to its high solar radiation. In Sonora, there is the Aslan Energy Capital project, which plans to build a plant with an initial capacity of 600,000 tons per year of hydrogen and green ammonia, with commercial operations planned for 2028 (Alianza Energética México - Deutschland).

What financing mechanisms are available to promote hydrogen and green ammonia projects in Mexico?

Institutions such as the World Bank and the Inter-American Development Bank have significantly increased their financial support for green hydrogen projects in Latin America. These agencies provide loans and technical assistance for projects that promote environmental sustainability and the reduction of greenhouse gas emissions. (Banco Mundial Blogs, 2023) Also, green bonds have established themselves as a key tool for financing sustainable projects. In Latin America, the Inter-American Development Bank works in collaboration with national banks and government agencies to encourage the creation of green bond markets, facilitating access to capital for green hydrogen and ammonia initiatives. (BID)

How can foreign investors participate in this emerging market?

Currently, Mexico has 24 projects under development in 13 states, with an estimated investment of 21,227 million dollars, focused on producing more than 196,000 tons of green hydrogen per year and about 970,000 tons of green ammonia by 2030. However, investors can get involved through: i) Alliances with public companies of the state; ii) Obtain some multilateral financing and; (iii) Market-based instruments, such as the purchase of green bonds.

How do they align or what impact would the adoption of these technologies have on current public policies with the objectives of decarbonisation and energy transition?

The adoption of technologies such as hydrogen and green ammonia is closely aligned with Mexico's decarbonization and energy transition goals, positively impacting current public policies.

Mexico has committed to reducing its greenhouse gas (GHG) emissions by 35% by 2030, according to its Nationally Determined Contribution. The incorporation of green hydrogen in sectors such as heavy industry, transport and electricity generation is essential to achieve these goals. Energy modelling studies indicate that green hydrogen can play a key role in the decarbonisation of the national energy system, especially in sectors that are difficult to electrify. (Secretaría del Medio Ambiente y Recursos Naturales, s.f.)

What are the main technical and economic obstacles to the mass adoption of green hydrogen and ammonia in Mexico?

Mexico faces various technical and economic obstacles that limit the development of green hydrogen and ammonia projects. Of the technical obstacles we encountered, the lack of adequate electricity transmission networks and gas pipelines limiting the integration of green hydrogen into the energy system. At present, electrolyzer production does not meet projected demand, which would delay the expansion of green hydrogen production. Hydrogen would also present technical difficulties for its transport and storage, due to its low energy density and physical properties, so this would require expensive and complex solutions.

On the economic side, green hydrogen is more expensive than gray hydrogen, due to the high costs of renewable electricity and the technology that is required; The subsidies that exist for fossil fuels make it difficult for green hydrogen and ammonia to compete in the energy market. (Alianza Energética México - Deutschland, 2021)

Overcoming these obstacles will require a comprehensive strategy that includes the development of infrastructure, the implementation of favorable public policies, the promotion of research and technological development, and the creation of financial mechanisms that encourage investment in green hydrogen and ammonia projects.

What opportunities does the international market offer for the export of these products from Mexico?

Mexico is emerging as a competitive exporter of green hydrogen to Europe and Asia, with a projected market of 330 million dollars by 2030. Its proximity to the United States also allows for efficient exports, such as the delivery of green hydrogen to California at competitive costs. Mexico, due to its geographical location and potential in renewable energy, has the opportunity to become a key exporter of hydrogen and green ammonia, meeting growing international demand and strengthening its position in the global energy market.





2.4 INNOVATION AND EMERGING TECHNOLOGIES

2.4.1 INNOVATION AND EMERGING TECHNOLOGIES

ENERGY STORAGE

What storage technologies are being developed or adopted in Mexico to support the integration of renewables?

Between 2020 and 2025, the most widely adopted storage technology in Mexico has been lithium-ion (Li-ion) batteries, used in grid-connected systems and industrial facilities. A prominent case is the 25 MWh BESS system installed in Cancun by Sungrow and Quartux (pv magazine, 2023). Flow batteries and supercapacitors are also being researched, mainly in public universities and CONAHCyT centers (Energy21, 2023). No new hydroelectric pumping projects have been developed, although this technology represents 191 GW globally (IEA, 2020). Technologies such as thermal or mechanical storage are in the experimental phase. The strategy has prioritized fast-to-implement solutions to support the integration of solar and wind.

How does nearshoring influence the demand for energy storage infrastructure, and what opportunities does it represent for investors?

Nearshoring has increased the demand for energy storage systems in industrial parks and manufacturing plants. Companies such as Quartux estimate that these solutions can reduce the cost of energy by up to 40% through demand control (Quartux, 2023).

Industries are looking for energy backup in the face of grid deficiencies and opportunities to stabilize their costs. This opens up niches for behind-the-meter projects, microgrids, and hybrid solutions. Opportunities are also opening up for grid-connected systems in regions with congestion or low quality of supply.

What incentives are there for storage projects, both at the national and state levels?

At the federal level, the CRE - predecessor of the National Energy Commission - published in 2024 Agreement A/113/2024, which recognizes storage as a regulated figure and establishes technical and legal criteria for its integration into the electricity system (CRE, 2024). The ISR Law allows accelerated depreciation of 100% in the first year for clean energy equipment, applicable to projects that integrate storage (SHCP, 2023). In addition, the decree on nearshoring incentives includes deductions for strategic sectors (DOF, 2023). At the state level, indirect measures have been implemented, such as incentives for energy efficiency in Mexico City. The industrial states of the north also promote agreements with CFE to facilitate energy projects in industrial parks.

2.4.2 ELECTROMOBILITY

What are the goals for electrification of public and private transport in Mexico, and which regions are leading this transition?

Mexico has set decarbonization targets in the transport sector, in line with its commitment to reduce greenhouse gas emissions by 35% by 2030 (Global Energy, 2025). However, in the field of vehicle electrification, current goals are limited and lack a sufficiently robust regulatory framework to encourage substantial technological change (ICCT, 2022).

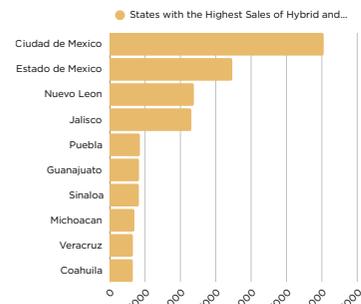
The Official Mexican Standard NOM-163, the main regulatory instrument for light vehicles, aims to improve energy efficiency and reduce emissions. However, its effectiveness has been limited by the inclusion of regulatory flexibilities such as empty credits and multipliers. For example, credits for electric vehicles can be counted up to 13.5, which dilutes the incentive to develop low-emission vehicles and make improvements to internal combustion vehicles. Additionally, NOM-163 Phase 2 only covers 2025-2027 models, which introduces regulatory uncertainty and slows down long-term investments in clean technologies (Global Energy, 2025).

According to the International Council on Clean Transportation (ICCT), Mexico risks failing to meet its electrification commitments if it does not adjust its regulations. It is recommended to eliminate the mechanisms that allow compliance without real improvements and to extend regulatory objectives beyond 2027 to offer certainty to investors (Forbes Mexico, 2025).

So far, there are no specific national electrification goals by region, although certain states have taken the lead in pilot initiatives, particularly in public transport. However, at the federal level, the framework has not yet decisively promoted the electric transition of private transport.

Mexico has formulated strategic objectives for vehicle electrification through its National Electric Mobility Strategy (ENME), which sets the goal that, by 2030, the ten cities with the highest emissions will have at least one public transport component with electric technology (CONUEE, 2023). This strategy also seeks to strengthen the national automotive industry for the local production of hybrid and electric vehicles, and align the energy transition of transport with an increase in the generation of electricity from clean sources.

In the private sector, the sale of hybrid and electric vehicles in Mexico has experienced sustained growth, reaching 122,549 units between 2020 and 2022. The entities that concentrate most of these sales are Mexico City, State of Mexico, Nuevo León, Jalisco, and Puebla, which indicates a greater penetration of electromobility in regions with advanced urban and industrial development (AMIA, 2023). In turn, until 2022 there were more than 2,000 charging stations installed, including public and private networks.



In terms of production, Mexico assembled more than 79,000 electric vehicles in 2022, which represented 2.4% of the national total. An increase to 6% is expected in 2023 (CONUEE, 2023). States such as Coahuila and Hidalgo have promoted the production of electric units through manufacturing plants such as Ford (Mustang Mach-E) and JAC Motors, respectively.

At the level of public transport, Mexico City leads with electric fleets in trolleybuses, Metrobus (Line 3 fully electric) and electric taxis. It is followed by Jalisco, with electric buses in Mi Macro Periférico, and Nuevo León, with proposals for electric corridors for the Metrorrey system. Also noteworthy are projects in Querétaro, Hidalgo, Puebla and the State of Mexico, where pilot solutions such as the Mexicable and fleets of electric trucks are being developed (CONUEE, 2023).



Imagen 2. Plantas de producción de vehículos eléctricos en México. Fuente: Zeitgeist Consulting Group

2.4.3 POWER FOR AI DATA CENTERS

Which regions of Mexico are attracting investment in data centers, and how is the energy supply for these facilities guaranteed?

The northern regions, especially Monterrey, and the central zone, which includes Querétaro and part of the Bajío, have stood out for attracting significant investments in data centers. According to Bloomberg (2023), the northern region has received investments exceeding USD 150 million, with an estimated annual growth of 25-30%, driven by robust industrial infrastructure, high-quality connectivity, and proximity to international markets. In terms of energy supply, the PRODESEN program is being implemented, led by SENER and the National Energy Control Center (CENACE), which projects an increase in capacity of around 15% to respond to growing operational demand (SENER, 2022; CENACE, 2022). In addition, coordination with international bodies, such as the International Energy Agency (IEA, 2023), ensures that facilities have a stable and resilient supply, essential for AI hubs.

What opportunities exist for clean generation projects that meet the growing energy demand of these centers?

Mexico presents favorable conditions for the development of clean generation projects, which are essential to supply high-demand data centers. The country has high levels of solar radiation and significant wind potential, especially in the northern and central regions (World Energy Council, 2023). The upcoming Mexico 2025 Plan introduces tax incentives and financing mechanisms that facilitate the incorporation of renewable energies into the national energy matrix (Government of Mexico, 2023).

International organizations, such as the World Bank (2023) and the IMF (2023), support these initiatives through analyses that highlight the importance of diversifying the energy mix. In addition, the PRODESEN project, executed by SENER and CENACE, contributes to improving the capacity and reliability of the electricity system (SENER, 2022; CENACE, 2022). The integration of storage technologies allows the operation of solar and wind systems to be optimized, ensuring continuity in the energy supply for critical facilities.

How is the regulatory framework favoring the installation of technological and energy infrastructure for data centers?

The regulatory framework in Mexico has evolved to facilitate the installation of technological and energy infrastructure. Plan Mexico 2025 establishes measures aimed at improving legal certainty, simplifying procedures, and granting tax incentives for technological projects (Government of Mexico, 2023). At the same time, the modernization of the electricity sector, through the PRODESEN project of SENER and CENACE, ensures the expansion and resilience of the grid, a critical aspect for data centers (SENER, 2022; CENACE, 2022).

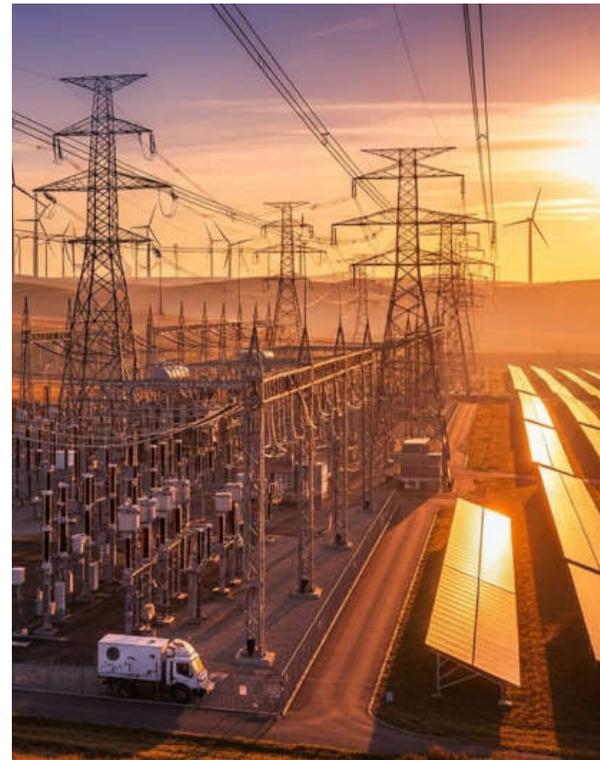
Coordination between public and private entities – such as ICC Mexico and the Energy Commission of the Business Coordinating Council – has promoted the updating of technical standards and regulations, guaranteeing operational efficiency and safety in the facilities. Likewise, alignment with international standards recommended by the International Energy Agency (IEA, 2023) and the OECD (OECD, 2023)

helps to define clear criteria for the integration of technological and energy infrastructure. These regulatory developments provide a technical data-driven environment for data center investment.

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2.4.4 GENERATION FOR WATER TREATMENT AND DESALINATION

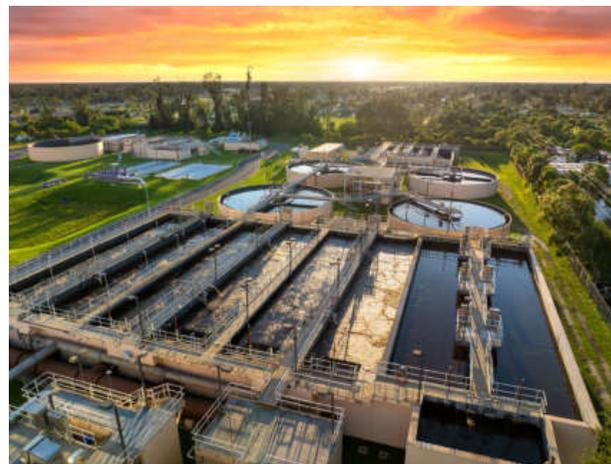
How are water treatment and desalination needs evolving in Mexico, and why is energy generation a critical aspect of these processes?

Water treatment and desalination are increasingly important in Mexico due to rising water scarcity linked to population growth and climate change (Proyectos México, 2025). Mexico's population is expected to reach 141.8 million by 2030, with 56% of this growth in areas already facing water stress (Prodensa, 2024). As a result, some regions could see water availability fall to 500 m³ per person per year.

To meet growing demand, Mexico's installed desalination capacity has increased by 240% since 2013, reaching approximately 750,000 m³/day across 351 plants in 28 states (Smart Water Magazine, 2024). Mexico City leads with 276,453 m³/day, followed by Baja California and Quintana Roo. Most of these plants use reverse osmosis, a technology aligned with global energy efficiency standards (Grand View Research, 2025).

Investment in water infrastructure is also expanding: Mexico has announced a €5.6 billion program for strategic water projects and allocated US\$1.57 billion for 37 projects through 2030 (Mexico Business News, 2024). The desalination equipment market itself is projected to grow at a CAGR of 7.6% between 2025 and 2031 (Renub Research, 2025).

Energy generation is central to these processes, as desalination is highly energy-intensive (CTCN, 2024). Incorporating renewable energy solutions or improving energy efficiency reduces operational costs and carbon footprints while supporting Mexico's climate goals. Additionally, many regions requiring desalination lack direct grid access, making local generation—like solar or geothermal—key for reliable operation.



What key water treatment and desalination projects are currently under development in Mexico, and what energy sources support them?

Mexico is advancing a broad portfolio of water treatment and desalination projects to address chronic water scarcity, especially in arid and densely populated regions (Proyectos México, 2024).

Project Name	Location	Investment (MXN/US \$)	Capacity / Beneficiaries	Current Status	Expected Start / Operation Date	Energy / Technology
Rosarito Desalination Plant	Baja California	MXN 12 billion / US\$648 million	2,200 l/s (\approx 190,000 m ³ /day); Phases until 2060	Pre-construction ; MIA submitted	Construction : 2025; Operation: late 2027-2028	Reverse osmosis membranes; designed for 36% energy savings
San Francisco Aquifer & Xpujil Networks	Campeche	Part of 37 national projects	Regional water infrastructure improvement	Planning and early development	Not publicly detailed	Grid electricity, potential renewable integration
Solís-León Aqueduct	Guanajuato	MXN 15 billion	Over 1.8 million inhabitants	Advanced planning; construction set for 2025	Construction : September 2025	Grid electricity, efficiency optimization
Mexico Valley Metropolitan Area Project	CDMX & surrounding states	MXN 50 billion	Over 21.6 million people	Initial phase of execution	Start: September 2025	Grid electricity, with future renewable integration

What are the key operational desalination and water treatment plants in Mexico developed through PPP frameworks, and what are the main characteristics of their contractual and financing structures?

In Mexico, public-private partnership (PPP) models have become a critical tool for advancing desalination and water treatment projects in water-scarce regions. These frameworks combine public financing with private capital and operational expertise to deliver reliable and efficient water infrastructure while sharing risk. Two flagship examples illustrate this approach:

The Guaymas-Empalme desalination plant in Sonora is the country's most advanced PPP-based project, operating under a 20-year design-build-operate-maintain (DBOM) contract. With a capacity of approximately 17,300 m³/day, the plant was developed by Aqualia México (54% investment) alongside federal funds (46% via Banobras-Fonadin). Private stakeholders assumed construction and operational risks, while the public sector guaranteed payments linked to service availability and quality (RevistaMigrante, 2025; CMIC, 2022).

The Rosarito desalination plant in Baja California, though still in the pre-construction phase, is planned as Mexico's largest desalination facility (190,000 m³/day). It will operate under a similar PPP scheme, with federal, state, and private financing. Construction is expected to begin in 2025 (mexicobusiness.news, 2025; proyectosmexico.gob.mx, 2025). The project's contractual structure emphasizes performance-based payments and technical risk transfer to the private sector.

Beyond these landmark projects, several regional aqueducts and sanitation initiatives (in Guanajuato, Campeche, Veracruz, and Coahuila) are also being developed under PPP structures (smartwatermagazine.com, 2025; aquatechtrade.com, 2025). Common features of these projects include 15–30 year concession contracts, mixed financing, and strong regulatory oversight to ensure service standards.

PPP-based water projects in Mexico are critical for expanding capacity in a financially sustainable and operationally reliable manner, aligning with the country's broader goals of water security and climate resilience (carbotecnia.info, 2025; OECD, 2025).

What is the estimated energy demand for desalination and water treatment projects in Mexico, and what emerging technologies can help meet this demand sustainably?

Desalination is a highly energy-intensive process, particularly seawater reverse osmosis (RO) - the main technology deployed in Mexico - which typically consumes between 2.5 and 3 kWh per cubic meter (m³) of freshwater produced (Renub Reaserch, 2025). Thermal desalination methods, though even more energy-demanding (>5 kWh/m³), are not common in Mexico due to their high operational costs (Institut français des relations internationales, 2025). As Mexico's desalination capacity grows, exemplified by large-scale projects like the Rosarito plant (~190,000 m³/day capacity), the cumulative energy demand for desalination is substantial and expected to increase further through 2033 (Mexico Business, 2025)

Water treatment plants also have high energy demands, particularly for aeration and pumping processes (Prodensa, 2025). However, innovations such as methane capture and biogas cogeneration in wastewater treatment can offset some of this demand, improving the overall sustainability of these projects (Smart Water Magazine, 2025).

Advancements in energy-efficient RO technology – including high-performance membranes and improved energy recovery devices – can reduce energy consumption by up to 30% compared to older installations (Mexico Business, 2025). International benchmark plants now operate at energy intensities as low as 2.27 kWh/m³, offering models for Mexico's sector to emulate (Renub, 2025).

Renewable energy integration is also gaining momentum. In regions with high solar and geothermal resources, pilot solar-powered RO systems and geothermal desalination prototypes (led by UNAM) have shown potential for meeting energy demands sustainably (Ifri, 2025). Hybrid systems combining RO with electrodialysis or forward osmosis are being explored to further optimize energy efficiency.

In wastewater treatment, microbial fuel cells represent a promising technology that generates electricity while treating water, aligning with Mexico's broader goals for decarbonization and the circular economy (Prodensa, 2025).

The Mexican government's plan to add nearly 23 GW of renewable energy capacity by 2030 (Enerdata, 2025) complements these efforts. This strategic expansion aims to support the growing energy requirements of desalination and water treatment infrastructure while aligning with national climate targets.



2.4.5 BIOMASS AND ELECTRICITY GENERATION FROM WASTE

How are biomass energy needs and opportunities evolving in Mexico, and why is biomass relevant for the country's energy matrix?

Biomass energy is steadily gaining relevance in Mexico as a means to diversify the national energy matrix, support rural and industrial development, and advance climate objectives (Mexico Business News, 2024). The country generates approximately 140 million tonnes of organic solid waste each year—including agricultural residues (such as sugarcane and citrus), forestry waste, and human waste—which could produce up to 7 million cubic meters of biogas daily (Grand View Research, 2025). This potential represents a significant share of national energy demand and is aligned with Mexico's NDCs under the Paris Agreement (Columbia SIPA, 2024).

In rural and agro-industrial areas, the local availability of biomass resources reduces logistical costs and strengthens energy sovereignty. Biomass is also being considered for integration into microgrids and distributed energy systems to provide reliable power in areas not connected to the national grid.

Although biomass currently accounts for less than 1% of Mexico's electricity generation, installed capacity grew from 966 MW in 2022 to 987 MW in 2023, and is expected to continue expanding at a compound annual growth rate of 5.5% through 2030 (Grand View Research, 2025). Biomass complements other renewables—hydropower, geothermal, solar, and wind—collectively supplying about 26% of Mexico's total renewable electricity.

What are the key biomass-to-energy projects currently under development in Mexico, and what factors are driving investment in this sector?

Mexico's biomass-to-energy sector is expanding as part of national efforts to diversify the energy matrix and meet climate targets (Gobierno de México, 2025). One flagship project is a 14 MW biogas plant in Yucatán, which uses agro-industrial residues to generate electricity and heat. Although this project faces challenges in collecting and transporting biomass, it highlights the sector's potential in rural and agricultural contexts. On a broader scale, biomass is included in Mexico's plan to add over 22,600 MW of new renewable capacity by 2030 through 51 strategic projects, positioning biomass alongside solar, wind, and geothermal in the national renewable mix (Gobierno de México, 2025).

Private companies such as BioEsol are also active, implementing more than 100 bioenergy projects across industries like manufacturing and telecommunications. These initiatives focus on distributed generation and improving energy efficiency, leveraging the abundant organic waste from agriculture, forestry, and urban sources (Mexico Business News, 2024).

Key drivers for investment include supportive national policies—such as the National Development Plan 2025–2030, which prioritizes clean energy, emissions reduction, and energy self-sufficiency—as well as mixed public-private financing, long-term contracts, and clean technology support (Gobierno de México, 2025). Biomass projects also support rural electrification and local development by creating jobs and fostering a circular economy. The sector's ability to provide stable and predictable renewable energy complements the intermittency of solar and wind, helping Mexico meet its climate commitments and provide reliable energy for rural and industrial users.

[What financial and regulatory incentives exist to encourage investment in biomass-based energy projects in Mexico, and how are they shaping the market?](#)

Mexico's regulatory and financial landscape for biomass energy has evolved significantly with the 2024–2025 energy reform, which reinforced state control of the sector and elevated the roles of PEMEX and CFE (International Trade Administration, 2024). While this limits large-scale private generation, renewable projects—including biomass—can participate through distributed generation, self-supply schemes, and partnerships with CFE (IMARC Group, 2025). Financial incentives include mixed public-private financing frameworks, soft loans, and strategic project support within the National Development Plan 2025–2030. Long-term contracts are also used to reduce risk and secure predictable revenue streams for investors.

For distributed generation, the current regulatory framework permits up to 0.7 MW without requiring a permit, while self-generation projects up to 20 MW can be developed more flexibly. These features make biomass an attractive option for rural communities and agro-industrial businesses to improve energy autonomy and local sustainability (International Trade Administration, 2024). Biomass's role in climate policy also supports investment, as national energy policies highlight the transition to clean energy and emissions reductions, directly aligning with the use of biomass for organic waste valorization and decarbonization goals (IMARC Group, 2025). However, the repeal of the bioenergy promotion law has introduced some uncertainty around long-term regulatory clarity. Addressing this will be important to fully harness Mexico's biomass potential and ensure investor confidence.

[What challenges and risks are associated with scaling up biomass energy projects in Mexico, and how can investors mitigate them?](#)

Scaling up biomass energy projects in Mexico faces several challenges that require careful management to ensure financial viability, regulatory compliance, and long-term sustainability. One of the primary challenges is regulatory and political uncertainty following recent reforms that have shifted the energy sector towards greater state control. This creates an unclear landscape for private investors, particularly regarding permits and market participation frameworks.

Logistical challenges also play a significant role. Biomass resources in Mexico are dispersed across rural and agricultural regions, leading to high collection and transportation costs. Additionally, there is competition for biomass feedstocks from other uses, such as agricultural inputs and animal feed, which can affect supply stability and costs (IMARC Group, 2025).

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Financial barriers are another factor: biomass projects typically require substantial upfront investments in infrastructure and technology, with returns that materialize over the medium to long term. These financing challenges are compounded by the need for reliable long-term contracts or state-backed programs to reduce investor risk (Mexico Biomass Market, 2025).

Technical and environmental risks must also be addressed, including emissions control and waste management. Social acceptance and community engagement are key to minimizing opposition and ensuring project sustainability, particularly in rural areas where biomass projects often operate.

To mitigate these challenges, investors are advised to seek partnerships with local communities and explore co-financing opportunities with public institutions. Careful site selection, robust feedstock logistics planning, and adherence to environmental best practices are essential for minimizing operational risks and aligning with Mexico's climate and energy policies.



2.5 STRATEGIC RESOURCES FOR THE ENERGY TRANSITION



2.5.1 LITHIUM: THE 'WHITE GOLD' AND ITS POTENTIAL IN MEXICO

What collaboration schemes, such as service contracts, partnerships or limited concessions, could allow the participation of the private sector in the exploitation of lithium?

Following the 2022 reform of the Mining Law, lithium was declared a strategic mineral reserved exclusively for the Mexican State, managed through the state-owned enterprise Litio para México (LitioMx). This framework prohibits direct mining concessions to private entities for lithium extraction. However, it does contemplate various collaboration schemes that enable private participation in non-extractive activities or in integrated value chains.

One viable scheme is through public-private joint ventures, in which the State retains majority ownership and strategic control, while private partners contribute capital, technology and operational expertise. LitioMx has expressed openness to such partnerships, particularly in processing and downstream phases where private sector experience can drive project viability (Mexico Energy Partners, 2024).

Service contracts and specialized technical service agreements are another mechanism. Here, private firms can provide engineering, exploration, processing or logistics services without acquiring ownership rights over the mineral itself. These contracts are structured to align with national policy while leveraging private capabilities.

While the law prohibits concessions for direct extraction, limited permits or auxiliary concessions may be issued for supporting infrastructure and services, such as transportation, storage, and refining of lithium derivatives.

Mexico is also fostering research and technological collaborations. Initiatives like the Plan Sonora, developed in partnership with US institutions and the private sector, promote integrated value chains in electromobility, semiconductors, and battery manufacturing. Private partners thus play a key role in developing technology and adding value beyond the mining phase (Mexico Business News, 2025).

Drawing lessons from the 2024-2025 energy sector reforms, mixed investment models in processing infrastructure are another potential avenue. Just as CFE partners with private firms for generation and distribution while retaining majority control, LitioMx could replicate these structures for lithium processing and refining plants.

These evolving schemes aim to balance the strategic control of lithium as a national resource with the innovation, investment, and technological advantages offered by private-sector partner

How could private companies contribute to the development of sustainable extraction and processing technology?

Private companies can play a critical role in advancing sustainable extraction and processing technologies for lithium in Mexico. The country's unique lithium deposits, predominantly in clay formations, present specific technical challenges that demand innovative solutions. While Mexico has developed proprietary extraction methods through institutions like the Instituto Mexicano del Petróleo (IMP) and CONAHCYT (Mexico Energy Partners, 2024), scaling these technologies requires additional expertise, capital, and operational capacity.

Private firms can contribute by transferring international best practices and collaborating on joint research and development (R&D) projects with LitioMx. These collaborations can focus on enhancing process efficiency, reducing environmental impacts, and recovering byproducts in line with global sustainability standards. (Bloomberg, 2025).

Beyond technical support, private partners can help train a new generation of specialists in sustainable lithium extraction, creating quality employment opportunities and strengthening Mexico's scientific and technological ecosystem.

These roles align with Mexico's broader goals of ensuring lithium remains a national strategic resource while leveraging private sector capabilities to accelerate the adoption of cutting-edge, environmentally responsible technologies

What challenges does the nationalization of lithium present to attract foreign investment in critical mining projects?

This shift has raised regulatory and legal uncertainties, particularly for foreign investors holding or seeking mining concessions. The cancellation of past concessions and evolving interpretations of mining rights have heightened perceptions of risk and created a complex landscape for investment planning (Mexico Business News, 2025).

Additionally, the government requires that it retain a majority stake in any joint ventures or partnerships, limiting private sector autonomy and the potential for returns on investment (Bloomberg, 2025). This structural constraint, combined with Mexico's strong political emphasis on resource sovereignty, reduces the appeal of lithium extraction projects for multinational mining firms accustomed to greater operational freedom (Investing.com, 2025).

Technical and financial challenges also add to the complexity. Extracting lithium from clay-based deposits is more technologically demanding and costly than traditional brine or hard rock extraction, requiring significant upfront investment and risk tolerance without clear legal guarantees.

Given these conditions, private sector interest has largely pivoted to downstream activities in the lithium value chain—such as refining, battery manufacturing, and related services—where collaboration with the state is more feasible and less restricted (Mexico Energy Partners, 2024).

What areas of the lithium value chain, such as refining or battery manufacturing, could be opened up to private participation?

Although the extraction and direct exploitation of lithium in Mexico are reserved exclusively for the State through the entity LitoMx current legislation and public policies allow private participation in downstream activities. Private companies can contribute to refining and processing, which includes the development of facilities for lithium carbonate and hydroxide production, essential for battery manufacturing. The manufacture of lithium-ion batteries and components represents another area open to private investment, particularly in the context of the Sonora Plan and its alignment with trade frameworks like the USMCA and the U.S. Inflation Reduction Act (IRA). Private participation is also encouraged in research and development to adapt advanced extraction and processing technologies to Mexico's unique clay-based lithium resources, supporting local innovation and supply chain resilience.



Additionally, private companies can invest in ancillary infrastructure and services such as transportation, storage, logistics, and environmental monitoring—critical support areas that do not involve direct mineral ownership (Mexico Business News, 2025; SFA Oxford, 2025).

2.5.2 CRITICAL MINING: MEXICO'S ROLE IN GLOBAL MINERAL SUPPLY

Which critical minerals have the greatest potential for development in Mexico, and how can they be integrated into international value chains?

In addition to lithium, which is already recognized as a strategic mineral under state control, Mexico has significant potential in other critical minerals that are essential for the global energy transition and advanced technological manufacturing (Mining 2025 - Mexico, 2025; Mexico Business, 2025). Copper stands out as one of Mexico's most important mineral resources, given its role in electric infrastructure, renewable energy technologies, and electric vehicles. Mexico ranks among the world's leading producers of copper, making it a key supplier in North American and global supply chains.

Silver is another critical mineral where Mexico holds a dominant global position, serving as the world's top producer. Silver is integral to electronics, photovoltaic panels, and other clean energy applications. Nickel and cobalt, crucial for rechargeable battery production, are also gaining traction, with growing exploration and development efforts in Mexico to meet increasing global demand.

Fluorspar (fluorita) rounds out this portfolio as Mexico is the second-largest global producer. This mineral is used in the chemical industry and metallurgy, highlighting the diversity of Mexico's mineral base beyond traditional precious metals.

Mexico's strategic geographic position at the doorstep of the United States, combined with its participation in the USMCA, facilitates integration into North American supply chains for batteries, electric vehicles, and renewable energy technologies (Prodena, 2025). Projects like the Sonora Plan exemplify Mexico's efforts to create fully integrated value chains, from raw materials to advanced manufacturing, in collaboration with U.S. and Canadian partners. This reduces dependency on Asian and Chinese supply chains, aligning with global trends favoring nearshoring and supply chain diversification (IEA, 2025).

Efforts to improve mining infrastructure, adopt cleaner technologies, and meet international standards for environmental and social responsibility are essential to strengthen Mexico's role as a reliable supplier. However, regulatory and social challenges—such as policy uncertainty, regulatory reforms, and community and environmental concerns—remain significant hurdles. Addressing these will require dialogue and multisectoral collaboration to balance national sovereignty with the needs of global markets and sustainable development.

Which regions present the best opportunities for sustainable and competitive mining projects?

Mexico's diverse mineral endowment and evolving regulatory landscape offer promising opportunities for sustainable and competitive mining projects across several key regions (Mining 2025 - Mexico, 2025; Mexico Business, 2025). These regions stand out for their resource potential, infrastructure, and growing emphasis on environmental and social standards.

Key factors for project viability in these regions include strict adherence to environmental and social laws—recent reforms mandate Indigenous and Afro-Mexican consultations, mine closure programs, and limitations on open-pit mining (Mexico Business, 2025). Infrastructure, such as transportation, energy access, and logistical support, also plays a vital role in reducing costs and increasing project efficiency. Social acceptance remains a decisive factor, with regions that foster community development and transparent partnerships seeing the most success.

Investing in clean energy, water efficiency, and circular economy practices is now central to meeting international standards and securing funding. Taken together, these dynamics underscore the potential of Mexico's mining regions to deliver both economic competitiveness and environmental and social responsibility.

Region	Key Minerals	Strengths for Sustainable Mining	Main Challenges
Sonora	Lithium, copper, gold, silver	Infrastructure, experience, proximity to markets	Indigenous consultations, environmental impacts
Zacatecas	Silver, gold	Community agreements, restoration programs	Environmental management, social acceptance
Chihuahua	Copper, silver, gold	Clean technologies, favorable investment climate	Indigenous consultations, environmental compliance
Durango/C oahuila	Diverse minerals	Diversified mining, mid-scale opportunities	Regulatory compliance, responsible closure
Guerrero/ Oaxaca	Important reserves	Potential for inclusive development	Social conflicts, environmental impacts

What role can Mexico play in diversifying global supply chains for critical minerals?

Mexico is positioned to become a key player in diversifying global supply chains for critical minerals, driven by its significant reserves, strategic geographic location, and trade relationships that support regional integration (IEA, 2025). The country holds substantial deposits of lithium, copper, silver, zinc, fluorite, and antimony—minerals essential for the transition to clean energy and advanced manufacturing. It is the world's largest producer of silver and fluorspar, with particularly promising lithium and copper reserves for electromobility and renewable energy applications (Mexico Business, 2025).

Its proximity to the United States and Canada, under the framework of the USMCA, facilitates nearshoring and the development of regional value chains for batteries, semiconductors, and electric vehicles (S&P Global, 2025). This positioning provides Mexico with preferential access to key North American markets, reinforcing its role as a reliable and competitive supplier.

Mexico's efforts to align mining practices with international sustainability standards further boost investor confidence and integration with markets such as the European Union, which prioritize ethical and secure supply chains (bnamericas, 2025). Ongoing trilateral cooperation with the U.S. and Canada aims to strengthen North American capacity for extraction, processing, and recycling, while reducing dependency on Asia (Mexico Business, 2025).

To fully realize this potential, Mexico must expand its domestic processing and refining capabilities—areas traditionally dominated by China—by investing in advanced technologies and workforce development (IEA, 2025). Building capacity in high-value segments like refining and component manufacturing would enable Mexico to capture more of the critical minerals value chain.

Mexico's role in diversifying global supply chains is further supported by participation in multilateral initiatives such as the Minerals Security Partnership, designed to promote responsible and resilient supply networks (bnamericas, 2025). Additionally, Mexico can strengthen its international position by expanding market ties with Europe and Asia-Pacific, beyond its robust North American trade links.

In short, Mexico's resource wealth, geographic proximity to major markets, and growing policy alignment with sustainability standards position it to contribute to the global diversification of critical mineral supply chains, helping to ensure greater energy security and technological competitiveness (mexicobusiness.news, 2025).





INVESTMENT IN INFRESTRUCTU RE SELECTED OPPORTUNITY AREAS

Chapter III

INVESTMENT IN INFRASTRUCTURE | SELECTED OPPORTUNITY AREAS

This chapter offers a clear and structured overview of Mexico's infrastructure landscape, positioning it as a critical enabler of economic competitiveness, regional integration, and the nearshoring boom. It aims to provide international investors with a roadmap of the sector's key structures, opportunities, and emerging dynamics, setting the stage for strategic decision-making.

We begin with **3.1 General Framework of the Infrastructure Sector**, which outlines the legal and market structures that govern infrastructure investment in Mexico. It reviews the main regulatory milestones, the roles of key regional authorities and stakeholders, and the shift toward greater state oversight balanced with avenues for private sector participation.

3.2 Infrastructure Linked to Nearshoring and Modernization focuses on how supply chain reconfigurations are driving new demand for logistics and industrial infrastructure. This section delves into the impact of these changes on logistics networks, as well as the development of strategic areas such as industrial corridors and border hubs that are becoming magnets for investment.

The chapter then addresses national priorities in **3.3 Transport Infrastructure**, examining the modernization and expansion of ports and roads (3.3.1) and the revitalization of passenger and freight rail networks (3.3.2). These projects not only enhance domestic connectivity but also strengthen Mexico's role as a North American logistics hub.

3.4 Digitalization in Infrastructure explores the transformative role of connectivity and smart technologies in critical infrastructure. Subsections detail the rise of data centers and the integration of smart grids (3.4.1, 3.4.2), the adoption of emerging technologies (3.4.3), and the growing focus on cybersecurity in critical infrastructure (3.4.4).

Finally, **3.5 Innovation and Sustainability in Infrastructure Projects** highlights the increasing relevance of green infrastructure and ESG (environmental, social, and governance) criteria (3.6.1), along with financing mechanisms and incentives that encourage public-private collaboration (3.6.2).

Taken together, these sections provide a comprehensive introduction to Mexico's infrastructure sector—tracing the evolution of its regulatory and operational frameworks and mapping out the strategic opportunities for investors across transport, water, digital, and industrial infrastructure.

3.1 GENERAL FRAMEWORK OF THE INFRASTRUCTURE SECTOR



3.1.1 MARKET STRUCTURE AND KEY REGULATION

[What is the size of the infrastructure market in Mexico?](#)

The infrastructure market in Mexico by 2025, with respect to the energy, transportation, water and social sectors, is estimated at approximately \$1.2 trillion pesos, which represents about 4% of the national GDP. This level of investment is considered low in the face of the country's structural needs. This panorama shows that, although there are opportunities, the sustainability of the market depends on greater efficiency in spending and the strengthening of private investment.

[How is the budget allocated to the infrastructure sector for 2025-2030 \(by SICT, CAPUFE, ARTF, etc.\) distributed?](#)

The Expenditure Budget of the Federation for 2025, assigned to the infrastructure sector in Mexico, is distributed mainly among the Department of Infrastructure, Communications and Transportation (SICT), Federal Roads and Bridges (CAPUFE) and the Railway Transport Regulatory Agency (ARTF), focusing on key road and railway projects, which will be in the amount of \$140,799 million pesos. This represents an increase of approximately 72% compared to the previous year.

This significant increase is mainly due to the reallocation of resources for the development of railway projects, which were previously under the responsibility of the Department of National Defense (DEFENSA).

[How many infrastructure projects are currently active and under development in Mexico? What percentage belongs to the public sector and the private sector?](#)

As of April 2025, Mexico has a significant number of infrastructure projects in various stages of development, including pre-investment, tendering, execution, and operation. It has approximately a total of 513 infrastructure projects registered on the Proyecto México platform. Of these, 157 projects are in development stages, including pre-investment, bidding and execution, while 356 projects are in operation.

On average, investment in infrastructure in Mexico is made up of 63.02% public resources and 36.98% private resources. This picture reflects significant collaboration between the public and private sectors in infrastructure development, with variations depending on the specific sector.

What are Mexico's construction goals for 2030?

By 2030, Mexico has set ambitious goals in infrastructure that seek to trigger economic growth, reduce territorial inequalities and move towards a sustainable development model. The axis of these goals is the National Highway Infrastructure Program 2025-2030, which contemplates the intervention of 4,000 km of federal highways, including expansions, modernization and maintenance, with a projected investment of \$173,000 million pesos. This plan also provides for the realization of 600 public tenders on priority roads and road maintenance.

How has FDI in the infrastructure sector evolved over the past five years?

Between 2020 and 2024, foreign direct investment (FDI) in infrastructure in Mexico showed an uneven behavior depending on the sector. Tourism infrastructure was the most dynamic, with more than 13,200 million dollars, growing 112% compared to the previous six-year term, highlighting states such as Quintana Roo and Baja California Sur. In contrast, the energy sector suffered a notable drop: in 2018 it accounted for 24% of total FDI, but in 2024 it barely reached 5%, due to state intervention and regulatory certainty.



3.1.2 KEY REGIONAL AUTHORITIES AND STAKEHOLDERS

Which infrastructure segments are prioritized in the National Infrastructure Plan 2025-2030, and how are they reflected in current projects?

Mexico's National Infrastructure Plan 2025-2030 sets out strategic priorities in various key sectors to boost the country's economic and social development. The prioritized segments and current projects that reflect priorities are: i) Highway Infrastructure; ii) Water Infrastructure; iii) Infrastructure for rail transport and; iv) Infrastructure of the Interoceanic Corridor of the Isthmus of Tehuantepec, which includes the modernization of railways, ports and airports.

How does the focus on cross-border logistics, hydrology and rail transport influence the market structure?

Mexico's strategic focus on cross-border logistics, hydrology and rail transport is reshaping the market structure, by strengthening regional competitiveness, improving water resilience and optimizing supply pipelines. With regard to cross-border logistics, Mexico has intensified the modernization of its border crossings and the adoption of technologies such as electronic customs information systems, streamlining the flow of goods and reducing operating costs.

Investment in water infrastructure is essential to ensure water supply in drought-affected regions. The National Water Plan seeks to develop dams and aqueducts to ensure access to water and support critical economic activities. The growth in rail freight transport has benefited different sectors, strengthening them in the connectivity between domestic and foreign markets.

The initiatives as a whole are transforming Mexico's infrastructure and logistics, positioning the country as a strategic hub in global supply chains and promoting more balanced and sustainable economic development.

What regulatory frameworks are most relevant for the development of projects in logistics, hydrology and rail transport?

The regulatory framework for the development of infrastructure projects in Mexico is made up of various laws and regulations that establish the legal and operational bases for their planning, execution, and supervision. The main laws are: (i) Public Works and Related Services Law; (ii) Public-Private Partnerships Law; (iii) Official Mexican Standards; (iv) General Regulation for Public-Private Partnerships, among others. This set of regulations provides a structured legal environment that facilitates the planning and execution of infrastructure projects in Mexico, promoting collaboration between sectors.

How do recent infrastructure reforms affect private participation and foreign direct investment in these sectors?

Recent infrastructure reforms in Mexico have had a significant impact on private participation and foreign direct investment in the sector. On the one hand, the Mexican government has promoted private investment. However, factors such as insecurity and legal uncertainty have inhibited the full potential of foreign direct investment, despite the phenomenon of nearshoring that represents an opportunity for economic growth.



What public-private financing schemes are available for projects in these priority segments?

Mexico offers financing schemes for priority infrastructure projects, including roads, water, railways, and the Interoceanic Corridor of the Isthmus of Tehuantepec. These schemes combine federal and state funding with private investment and financing from development banks, capital markets, and multilateral institutions.

For road infrastructure, investments of approximately US\$3.3 billion are planned for 2025, targeting the construction and modernization of key highway networks and expected to generate more than 160,000 jobs (Mexico Business News, 2024). Financing schemes include PPP models through concessions and service contracts, long-term credit facilities from development banks like BANOBRAS and NAFIN, and the issuance of structured financial instruments such as CKDs and FIBRAs to attract institutional investors.

In the water infrastructure sector, Mexico has announced historic investments of over MXN 186.56 billion (about US\$9.3 billion) in 37 hydraulic projects to be completed by 2025 (Proyectos México, 2024). Financing structures involve DBOM (design, build, operate, and maintain) PPP models, credit lines and guarantees from development banks, and green debt issuance to support ESG-compliant projects. These initiatives aim to expand potable water coverage, improve climate resilience, and ensure sustainable water management.

Railway infrastructure is another priority area, with plans to modernize and expand passenger and freight rail lines, strengthening regional connectivity and logistics competitiveness. Funding combines PPP schemes, concessions for operation and maintenance, and co-investment from national and international private capital through structured debt and equity.

For the Interoceanic Corridor of the Isthmus of Tehuantepec, part of Mexico's national infrastructure plan, a blended finance approach is adopted. This includes federal budget allocations, PPP contracts for the integrated development of multimodal infrastructure (ports, railways, roads, and industrial hubs), and incentives to attract both domestic and foreign investment. Development banks, multilateral funding, and private investors are all key players in realizing the corridor's goal of creating a competitive logistics hub that bridges the Atlantic and Pacific oceans and catalyzes regional development and international trade (Proyectos México, 2024; Mexico Infrastructure, 2024).

[How have tax and regulatory incentives evolved to attract private capital in infrastructure?](#)

Mexico has strengthened its strategy to attract private capital in the infrastructure sector through new tax incentives and regulatory adjustments. Under Plan Mexico, the Mexican Government implemented key measures such as: i) Immediate deduction of investments, i.e., companies can deduct up to 91% of the value of new fixed assets in the fiscal years 2025-2026 and up to 89% from 2027-2030; ii) Fiscal incentives for nearshoring, that is, approximately \$30 billion pesos were allocated to promote industrial relocation and strategic export sectors; iii) Regional benefits, i.e., fiscal incentives such as the reduction of the Value Added Tax (VAT) to 8% in border areas, to promote regional development, among others, were maintained.

3.2 INFRASTRUCTURE LINKED TO NEARSHORING AND MODERNIZATION



3.2.1 RECONFIGURING SUPPLY CHAINS: IMPACT ON LOGISTICS INFRASTRUCTURE

Which segments of logistics infrastructure are receiving the most investment due to the increase in cross-border trade?

The main segments with increasing investment are industrial parks, distribution centers, roads, railways and ports. In 2022, 4.7 million m² of industrial warehouses were built, especially in the north and Bajío (AMPIP, 2023). Investment in logistics infrastructure exceeded USD 12 billion between 2020 and 2023 (SHCP, 2023). Ferromex and KCSM expanded rolling stock and border crossings, including the new Matamoros-Brownsville bridge (SICT, 2023). In ports, expansions in Veracruz, Manzanillo, and Lázaro Cárdenas to increase containerized and automotive capacity stand out (API Veracruz, 2022).

How does nearshoring affect capacity demand in ports, airports and distribution centers in Mexico?

The occupation of industrial parks reached records, with net absorption of 3.5 million m² in 2023 (Deloitte, 2024). Industrial vacancy rates fell to levels of 1-3% in areas such as Monterrey and Mexico City. The ports of Manzanillo and Lázaro Cárdenas reported saturation due to an increase in automotive and containerized traffic (Coordinación de Puertos, 2024).

In airports, cargo grew 6.3% year-on-year from January to November 2024, with greater dynamism in Querétaro, Monterrey, and AIFA (AFAC, 2024). These figures reflect the direct impact of nearshoring on the national logistics infrastructure.

What strategic logistics projects are underway to support nearshoring (e.g., customs modernization, port expansion)?

The Interoceanic Corridor of the Isthmus of Tehuantepec is the most relevant project under execution, with railway modernization and the development of 10 industrial parks (CIIT, 2023). Otay II, the new border crossing between Tijuana and San Diego, will begin operations in 2024 with more than 500 million USD of investment (SICT, 2024). The expansion of the port of Veracruz and the private project of the USMCA Corridor (Mazatlán-Texas-Canada) are also advancing in the planning phase (Caxxor Group, 2023). The "Customs of the XXI Century" program modernizes customs with scanning and a single window (ANAM, 2023).

What private initiatives are collaborating with the public sector in the development of logistics infrastructure?

Operators such as Aleatica, IDEAL and Pinfra maintain concessioned highways. In ports, APM Terminals, Hutchison Ports and SSA Mexico invest in equipment under API concessions. In railways, KCSM and Ferromex collaborate on bypasses and technical improvements (SICT, 2023). AMPIP participates in the development of industrial parks, including projects such as the Libre Trade Zone Colombia (Government of NL, 2024). Investments are channeled through PPP schemes or direct participation. In 2024, the Advisory Council for Nearshoring was established to coordinate these initiatives (Presidency, 2024).

The main challenges are saturation at ports and border crossings, lack of electrical infrastructure in industrial areas, insecurity on land routes, and lag in modernization of rail and road networks (IMCO, 2023). In addition, water and gas shortages in the north complicate new resource-intensive projects. Bureaucracy and institutional fragmentation delay permitting and execution. Despite digital advances, customs clearance times are still slower than in international hubs.

There are opportunities in road and rail concessions, development of industrial warehouses, logistics parks, port terminals and air cargo. Nearshoring has created sustained demand in the Bajío and north of the country. There is also scope for associated energy projects, such as microgrids and backup systems. The government offers accelerated deduction of fixed assets, regional incentives, and participation in PPPs. U.S.-Mexico trade exceeded \$798 billion in 2023, justifying new logistics investments along key industrial corridors.

3.2.2 STRATEGIC AREAS: INDUSTRIAL AND BORDER CORRIDORS

Which regions have been identified as priorities for the development of nearshoring infrastructure?

Mexico has identified three large regions as priorities for nearshoring: the northern border, the Bajío-Centro corridor and the Isthmus of Tehuantepec. These areas stand out for their logistics infrastructure, their consolidated industrial base or their potential for future integration into North American supply chains.

The northern border - made up of states such as Nuevo León, Coahuila, Chihuahua, Baja California, and Tamaulipas - concentrates more than 67% of the demand for new industrial spaces and is responsible for more than 50% of the country's manufacturing exports (El Economista, 2024). This region is fully integrated into the U.S. market and has a dense network of industrial parks, border crossings, and suppliers of specialized inputs. In addition, states such as Nuevo León, Chihuahua, and Coahuila lead the Industrial Development Index linked to nearshoring, thanks to their export capacity, skilled workforce, and logistics infrastructure (FINSA, 2024).

In the center of the country, the Bajío-Centro region, which encompasses entities such as Guanajuato, Querétaro, Aguascalientes, San Luis Potosí and the State of Mexico, represents another strategic pole. Its attractiveness lies in the consolidation of automotive, aerospace and electronics clusters, as well as in its proximity to the main consumption centers. This area has also shown a high industrial employment rate and sustained growth in road and rail infrastructure (Mexico Industry, 2024).

Finally, the Isthmus of Tehuantepec has been prioritized as an emerging axis of development. Through the Interoceanic Corridor, the government seeks to integrate this southern region into international trade, taking advantage of its location between the Pacific and Atlantic oceans. With substantial public investments and special tax benefits, it is expected to detonate a new logistics and industrial platform that complements the north and the Bajío (SRE, 2023).

How do corridors such as the Trans-Isthmus and the northern border contribute to the strengthening of supply chains?

Both the Interoceanic Corridor of the Isthmus of Tehuantepec (CIIT) and the northern border infrastructure play a key role in the resilience and efficiency of supply chains linked to nearshoring. The CIIT, located in the narrowest strip of the country, connects the ports of Coatzacoalcos (Veracruz) and Salina Cruz (Oaxaca) through a 309-kilometer railway network, in addition to modernized road and port infrastructure. This corridor creates an alternative logistics route to the Panama Canal, allowing the transit of goods between Asia, the United States, and Europe with lower costs and travel times (SRE, 2023).

The CIIT not only offers interoceanic connectivity, but also seeks to become an industrial hub through the creation of ten industrial parks with tax incentives and logistical facilities. This multimodal integration positions the Isthmus as a future regional manufacturing and distribution platform, attracting investments that require access to ports and efficient rail links.

On the northern border, the modernization of international bridges and customs has been decisive in absorbing the increase in trade derived from nearshoring. Projects such as the expansion of the World Trade Bridge III in Laredo and the construction of the new Mesa de Otay II crossing will reduce crossing times and increase operational capacity.

In addition, improvements in customs technology and extended hours of operation streamline the clearance of goods, reinforcing just-in-time supply chains (Mexico Industry, 2024). Together, these corridors not only increase physical connectivity, but also improve the predictability and efficiency of international trade.

What strategies are border regions adopting to modernize critical infrastructure such as bridges and customs?

Mexico's border regions are deploying a comprehensive modernization strategy to respond to the new logistical demands of nearshoring. This effort includes the expansion of international bridges, the creation of new crossings, and the modernization of customs to speed up the flow of goods. One of the most relevant cases is the expansion of the World Trade Bridge III in Nuevo Laredo-Laredo, which will go from 8 to 18 lanes, substantially increasing the crossing capacity of the most important land port in the hemisphere (Mexico Industry, 2024). Likewise, three new crossings in Texas adjacent to Coahuila and Tamaulipas have been approved, such as the Eagle Pass II bridge, which will include a railway section and additional vehicular lanes.

Another key project is the new Otay II Mesa crossing between Tijuana and San Diego, conceived as a smart port of entry with dynamic tolling, integrated technology inspection and 24/7 operation. This binational work seeks to drastically reduce waiting times in Otay I, decongesting one of the busiest border areas in the country (SRE, 2022).

Customs are also being technified with scanners, confined corridors, digital declaration systems and improvements in logistics yards. Under the coordination of Mexico's National Customs Agency (ANAM), works are being carried out in Ciudad Juárez, Tijuana and Reynosa, many with the support of state governments. Added to this is a trend towards continuous operation (including weekends and nights) at the most important crossings, which strengthens the just-in-time logistics chain. These strategies not only increase operational capacity but also consolidate the northern border as an indispensable logistics asset for regional trade.

What public-private collaboration models are being used for the development of infrastructure in strategic areas?

Given the magnitude of investment required to modernize its infrastructure, Mexico has chosen to intensify the use of public-private partnership (PPP) models and co-investment schemes to develop strategic regions associated with nearshoring. The Public-Private Partnerships Law allows the federal government and states to bid on long-term projects in which the private investor designs, builds, finances, and operates assets such as highways, logistics terminals, or industrial parks. These schemes have been key, for example, in concessioned road sections in the north of the country or in the bidding for the industrial parks of the Interoceanic Corridor, which will be developed by private companies under tax incentives (Secretaría de Relaciones Exteriores, 2023).

Beyond formal PPPs, development banks and specialized funds play a key role in fostering co-investment. The National Infrastructure Fund (FONADIN) and development banks like BANOBRAS and NADBank are actively involved in financing and structuring strategic projects alongside private capital. FONADIN, for example, supports the modernization of major highways (such as the Mexico-Querétaro segment), the expansion of freight and passenger rail lines, and the creation of integrated industrial corridors that include specialized zones for automotive, aerospace, semiconductor, agroindustrial, and renewable energy sectors. BANOBRAS provides loans, guarantees, and trusts that enable states and municipalities to develop road, rail, and water infrastructure that underpins regional industrial hubs. NADBank focuses on financing environmental and sustainable infrastructure along the Mexico-U.S. border, including clean energy, water treatment, and waste management projects in industrial parks.

A recent development is the creation of the Single Window for Investors (VUI), an inter-institutional mechanism that accompanies strategic investors - national or foreign - in the development of their projects, facilitating procedures and articulating efforts between agencies (Secretaría de Economía, 2023). Permanent tables have also been set up between governments and companies to resolve regulatory and regulatory obstacles, which has streamlined emblematic projects such as the Sonora Plan and new factories in the north of the country. Together, these models seek not only to attract investment, but to execute it with speed, legal certainty and alignment with the public interest.

3.3 TRANSPORT INFRASTRUCTURE: NATIONAL PRIORITIES

A nighttime photograph of a port facility. Several large gantry cranes are illuminated with bright yellow and green lights, their structures silhouetted against the dark sky. In the foreground, a large cargo ship is docked, its deck and containers visible, lit up with blue and white lights. The water in the foreground is dark, reflecting the lights from the port. The overall scene conveys a sense of industrial activity and infrastructure.

3.3.1 PORTS AND ROADS: MODERNIZATION AND EXPANSION

Which ports are being modernized or expanded, and how will they impact international maritime trade?

- **Port of Ensenada:** 5,745 million pesos. An increase of 440 million pesos per year is estimated in the collection of resources for the Administrations of the National Port System (ASIPONA), which represents 223% of the current ones, as well as an approximate increase of 85% in customs collection.
- **Manzanillo and Nuevo Manzanillo:** 13,598 million pesos. The construction of a yard for empty containers; a pier and fishing basin; as well as maintenance dredging are planned. With regard to Nuevo Manzanillo, the construction of two hydrocarbon terminals, a container storage yard, a specialized dock for the deep-sea fishing industry, four container terminals and construction dredging, as well as the provision of a customs area to meet an annual demand of up to 10 million TEUs
- **Lázaro Cárdenas:** 6,146.24 million pesos. It is planned to double its capacity, the installation of customs and exit from the southern port.
- **Acapulco:** 386 million pesos with the objective of providing major maintenance of the multipurpose dock and the two port reserves: Jardín del Puerto and Centro de Consumo; as well as the extension of the dock and rehabilitation of the vehicle terminal.
- **Veracruz:** 1,800 million pesos in order to increase by 1,415.12 million pesos per year in fundraising for ASIPONA; as well as 161 percent in customs collection.
- **Progreso:** 5,200 million pesos will be invested in order to make it the most important port on the peninsula with the development of an 80-hectare platform for the construction of new terminals for bulk minerals, vehicles, liquefied petroleum gas, natural gas, shipyard, among others.

These modernizations are designed to increase the capacity and efficiency of ports, facilitating more agile and competitive maritime trade at an international level. The improvement in port infrastructure will allow a greater volume of cargo to be handled and reduce waiting times, strengthening Mexico's position in global trade.

What highway projects are intended to connect strategic regions with industrial corridors and border areas?

Mexico is implementing a comprehensive national highway program to strengthen connections between strategic regions, industrial hubs, and border areas. This initiative covers over 4,000 km of roads to be built or modernized between 2025 and 2030 (Mexico Business, 2025).

At the core of this connectivity effort are two major corridors that link central Mexico to the U.S. border:

- The Carretera 57 (Mexico City–San Luis Potosí–Laredo), essential for the automotive and manufacturing sectors (WMP Mexico Advisors, 2025).
- The Carretera 45 (Querétaro–Guadalajara–Ciudad Juárez), supporting the Bajío’s industrial backbone.

Additionally, ten priority corridors, such as Cuautla–Tlapa–Marquelia, Tamazunchale–Huejutla, and Saltillo–Monclova, will connect vulnerable areas and industrial nodes, enhancing regional logistics (bnamericas, 2025).

Beyond these main axes, emblematic projects like the San Ignacio–Tayoltita Road (Durango–Sinaloa) and the Rizo de Oro Bridge (Chiapas) exemplify the government’s push for regional development. This program directly supports Mexico’s manufacturing zones in the Bajío, border states, and the Pacific corridor, reinforcing their integration into global supply chains (proyectosmexico.gob.mx, 2025).

What investment opportunities are available in the construction and operation of port and road infrastructure?

Mexico’s port and highway modernization programs present dynamic opportunities for private investment, driven by nearshoring, industrial growth, and trade facilitation. In the port sector, the federal government will invest more than MXN 32.8 billion (~US\$1.6 billion) from 2025 to 2029 in six key ports: Ensenada, Manzanillo, Lázaro Cárdenas, Acapulco, Veracruz, and Progreso. Private investment already represents 82% of terminal investments, especially in Manzanillo and Progreso, focused on specialized terminals, shipbuilding facilities, and digital and green infrastructure (Mexico Business, 2025; bnamericas, 2025).

For highways, over US\$3.3 billion in investment is planned for 2025 alone, growing to US\$8.47 billion by 2030, to modernize over 4,000 km of roads (SICT, 2025). Private participation is encouraged through concessions, PPPs, service contracts, and structured financing. These investments target strategic corridors—particularly Mexico–San Luis Potosí–Laredo and Querétaro–Guadalajara–Ciudad Juárez—crucial for automotive, aerospace, agri-food, and advanced manufacturing logistics.

Development banks like FONADIN and BANOBRAS offer blended financing and guarantees, while nearshoring and Mexico’s strategic location drive strong demand for infrastructure linking industrial parks to ports, airports, and border crossings. ESG-aligned projects in digitalization, clean energy, and circular economy practices are particularly attractive

What highway projects are intended to connect strategic regions with industrial corridors and border areas?

Mexico is implementing a comprehensive national highway program to strengthen connections between strategic regions, industrial hubs, and border areas. This initiative covers over 4,000 km of roads to be built or modernized between 2025 and 2030 (Mexico Business, 2025).

At the core of this connectivity effort are two major corridors that link central Mexico to the U.S. border:

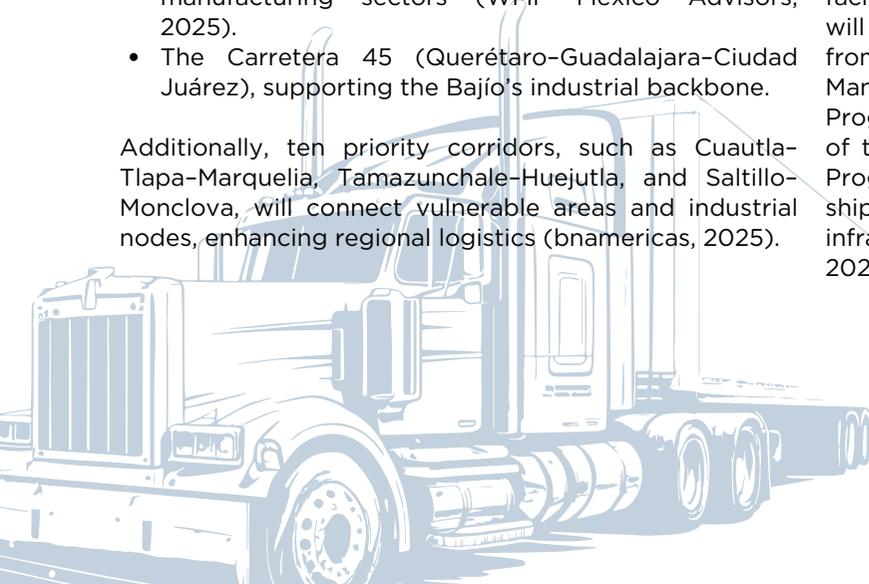
- The Carretera 57 (Mexico City–San Luis Potosí–Laredo), essential for the automotive and manufacturing sectors (WMP Mexico Advisors, 2025).
- The Carretera 45 (Querétaro–Guadalajara–Ciudad Juárez), supporting the Bajío’s industrial backbone.

Additionally, ten priority corridors, such as Cuautla–Tlapa–Marquelia, Tamazunchale–Huejutla, and Saltillo–Monclova, will connect vulnerable areas and industrial nodes, enhancing regional logistics (bnamericas, 2025).

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What challenges does Mexico face in ensuring that projects are sustainable and meet environmental standards?

Mexico is strengthening its environmental and social frameworks to align with global commitments such as the Paris Agreement and the Sustainable Development Goals (SDGs). This involves tighter regulations on emissions, water quality, and ecosystem protection—posing a challenge for projects that must adapt to these evolving standards (Mexico Business, 2025).

Despite prioritizing energy transition and sustainability in its National Development Plan 2025–2030, limitations in budget and institutional capacity can hamper effective oversight and enforcement of environmental standards. Another layer of complexity stems from the need for prior consultations with Indigenous and local communities, adding social engagement and transparency as critical project considerations (finanzaspublicas.hacienda.gob.mx, 2025).

Adopting green technologies and innovative solutions—like circular economy practices and nature-based solutions—is increasingly essential but often requires significant investment and specialized workforce training that not all projects can readily support.

How are bottlenecks in the current transportation infrastructure being managed to respond to growing demand?

Beyond physical upgrades, Mexico is increasingly adopting digital tools and smart management systems—such as Building Information Modeling (BIM), IoT-based sensors, and digital platforms—to enhance the planning, construction, and operation of key transport nodes. These technologies streamline coordination, reduce delays, and ensure more efficient logistics flows.

Integrated logistics and multimodal corridors are also a priority. The Interoceanic Corridor of the Isthmus of Tehuantepec, for example, combines ports, rail, and highways to offer alternative trade routes and alleviate congestion in overburdened ports (Mexico Business, 2025).

Urban areas like Monterrey and Guadalajara are focusing on smart mobility solutions, expanding mass transit systems and incorporating real-time monitoring tools to improve urban mobility and reduce car dependence (finanzaspublicas.hacienda.gob.mx, 2025). Public-private partnerships are increasingly favored to accelerate project delivery and bring in expertise and technology from the private sector, helping bridge infrastructure gaps while meeting higher standards of environmental and social performance.

3.3.2 RAILWAYS: REVITALIZING PASSENGER AND FREIGHT RAIL TRANSPORT

What are the main railway projects announced by the Mexican Government and how will they transform connectivity between strategic regions of Mexico?

Mexico has announced an unprecedented investment of approximately MXN 157 billion (~US\$7.7 billion) for 2025 to expand and modernize its passenger railway network, aiming to construct and rehabilitate over 3,000 km of lines during the current administration (proyectosmexico.gob.mx, 2025; Mexico Business, 2025).

Key projects slated to begin construction in 2025 include the AIFA-Pachuca train, which will connect the Felipe Ángeles International Airport with Pachuca and nearby urban centers starting in March 2025. The Mexico City–Querétaro train, will enhance connections between the capital and the Bajío region’s industrial hub, while the Querétaro–Irapuato train, scheduled for July, will bolster links within this industrial corridor (Mexico News Daily, 2025). In the north, the Saltillo–Nuevo Laredo train will improve connectivity between Saltillo, Monterrey, and Mexico’s largest land trade port with the United States. Additionally, the suburban Lechería–AIFA extension is nearing completion, already 80% built.

These projects are designed to enhance regional integration by connecting key industrial, urban, and border regions, thereby reducing highway congestion and offering sustainable, high-speed rail alternatives. With expected speeds of up to 200 km/h and electrified lines, these initiatives promote low-carbon mobility and modern travel experiences (proyectosmexico.gob.mx, 2025).

What impact will these projects have on attracting investment and strengthening supply chains in key regions?

The modernization of Mexico’s railway network will significantly enhance regional competitiveness, directly reducing logistics costs and transit times for key industrial, agro-industrial, and high-tech manufacturing sectors. Efficient rail connections make these regions more attractive to domestic and foreign investors seeking reliable supply chains and robust infrastructure under the USMCA framework (Mexico Business, 2025).

New railway links are poised to stimulate the development of integrated industrial and logistics corridors, connecting seamlessly with ports, airports (such as AIFA), and national road networks. This multimodal integration will bolster Mexico's position in North American supply chains, reinforcing its role as a reliable nearshoring destination and diversifying trade flows (proyectosmexico.gob.mx, 2025).

Beyond logistics advantages, these projects will generate thousands of direct and indirect jobs in construction and operations, catalyzing local economic activity and supporting balanced regional development. With modern, electrified, and efficient railways, Mexico is set to strengthen its industrial backbone and secure a more sustainable and competitive position in global trade networks (Mexico Business, 2025).

[How are rail routes being prioritized considering nearshoring trends and industrial development?](#)

Mexico is prioritizing the development of rail routes that connect strategic regions to industrial clusters and border zones, seeking to capitalize on the momentum of nearshoring and strengthen supply chains. Key railway projects set to break ground in 2025 include lines linking the Felipe Ángeles International Airport (AIFA) with Pachuca, the Mexico City–Querétaro and Querétaro–Irapuato corridor, and the Saltillo–Monterrey–Nuevo Laredo route.

These projects aim to streamline the transport of goods and people, reduce road congestion, and provide efficient, modern alternatives to support regional competitiveness and integration into global manufacturing networks, particularly for the automotive, aerospace, and technology sectors (mexicobusiness.news, 2025).

[How does the constitutional reform redefine the role of the State in the development and operation of rail transport?](#)

The 2024–2025 constitutional and regulatory reforms in Mexico marked a significant shift in the governance of strategic infrastructure, including the railway sector. These reforms aimed to strengthen the role of the State in controlling and operating key transport assets, reflecting a broader trend of reinforcing sovereignty and national security over infrastructure deemed critical. In this context, the reforms—closely linked to the energy sector reforms of the same period—expanded the government's ability to assert ownership and strategic oversight of railway networks through state-owned entities and regulatory agencies, such as the Railway Regulatory Agency (ARTF).

The reform allows for the State to grant assignments to public entities or concessions to private companies specifically for passenger rail services. Freight rail concessions remain valid and can coexist with new passenger services. Moreover, current freight operators can apply for additional concessions to offer passenger services, ensuring integration and operational synergy within the national network.

This framework reinforces the State's role in regulating, planning, and ensuring the security and sustainability of the railway system—especially for passenger mobility—while continuing to rely on private investment and expertise through concession arrangements. To support this, secondary legislation (including the reformed Railway Service Regulatory Law) provides updated rules for concessions, oversight mechanisms for supervising, and enforcing these concessions (Proyectos México, 2025).

What obstacles do domestic and foreign investors face in participating in railway projects in Mexico, including regulatory, political, and financial risks?

Domestic and foreign investors in Mexico's railway sector encounter a complex array of challenges that span regulatory, political, financial, and operational dimensions. The 2024–2025 constitutional reform and related legal adjustments, while reaffirming the State's central role in the sector, have also generated uncertainty about the stability and continuity of existing and future concessions. Companies like Grupo México have expressed concerns over provisions that allow the government to reclaim concessions on grounds of “public interest,” casting doubt on long-term investment security (Mexico Business, 2025).

A significant complicating factor is the increasing participation of the military in railway projects—such as the Tren Maya, the Mexico-Querétaro line, and the AIFA-Pachuca corridor—classified as matters of “national security.” This military involvement has raised transparency concerns, limiting clarity around contract structures, project costs, and profitability for private partners (Proyectos México, 2025).

Past incidents like the 2015 cancellation of the Mexico-Querétaro train due to irregular bidding processes further underscore the regulatory risks investors face.

On the political front, the State's strong presence in planning and managing railway projects, coupled with shifting governmental priorities and fiscal constraints affecting agencies like the Department of National Defense and Pemex, create an environment of policy unpredictability. Investors worry about abrupt changes, including the possibility of rescinding concessions for reasons of “public interest,” which complicates the financing of long-term capital commitments (ibnet.org, 2025).

Financial risks add another layer of complexity. Examples like the Mexico-Toluca train project, which saw costs triple and years-long delays, highlight the challenges of managing large-scale rail initiatives in Mexico. Moreover, new passenger rail lines such as the Tren Maya and the Tren Insurgente have reported low ridership outside peak travel seasons, raising concerns about financial sustainability and projected revenue streams. The State's preference for maintaining operational control further limits private sector management opportunities and may reduce potential returns on investment.

Operationally, complex terrain, environmental considerations, and the need to integrate new lines with existing infrastructure present logistical hurdles that have historically led to delays and cost overruns. In addition, insufficient inter-institutional coordination—particularly between federal, state, and municipal entities—often complicates project execution and hinders the alignment of public and private interests (Mexico News Daily, 2025).

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How are railway projects being integrated into Mexico's sustainability and emissions reduction goals?

Mexico's railway projects are a core component of its efforts to advance sustainable mobility and emissions reduction, in line with its climate commitments under the Paris Agreement. The government, in collaboration with the European Union, is developing a long-term strategy to modernize the rail system, focusing on reactivating underutilized lines and expanding capacity to reduce reliance on road transport (Mexico Business, 2025; proyectosmexico.gob.mx, 2025).

Electric passenger trains, such as the Tren Suburbano Lechería-AIFA and the Tren Maya, are expected to cut emissions by up to 80% compared to traditional road transport, while offering fast, efficient, and low-carbon mobility options. Freight logistics are also being optimized through new multimodal corridors and rehabilitation of existing tracks, further reducing heavy truck traffic on roads (Proyectos México, 2025).

These initiatives integrate environmental and cultural criteria, particularly in projects like the Tren Maya, to ensure that development aligns with local needs and ecological preservation. By shifting both passenger and freight transport to rail, Mexico aims to strengthen its competitiveness while reducing carbon emissions and fostering inclusive growth (railway.supply, 2025).



3.4

DIGITALIZATION IN INFRASTRUCTURE

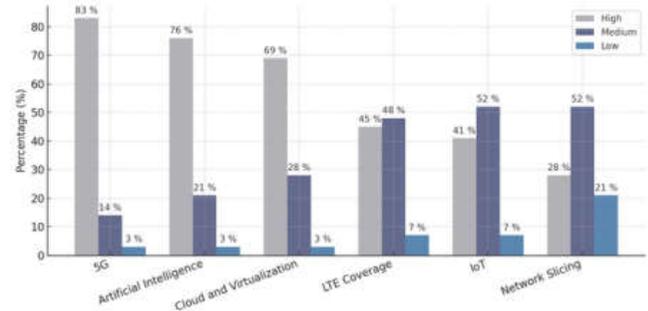


3.4.1 DIGITAL TRANSFORMATION: CONNECTIVITY AND SMART GRIDS

What opportunities exist for investment in connectivity infrastructure, such as 5G networks and fiber optics, to support the digitization of public services and infrastructure?

According to the IFT (2022), in the fourth quarter of 2022, telecommunications operators recorded total revenues of 458,240 million pesos (more than 26,200 million dollars), while the mobile services segment – represented by Telcel, Telefónica and AT&T – reached 259,636 million pesos (more than 14,000 million dollars), with a slight year-on-year decrease. Additionally, the IFT (2023) forecasts that, by the end of 2024, mobile internet access lines will grow by 6.3%, adding 15.7 million additional lines compared to the end of 2022, which will reach a total of 135.5 million lines, equivalent to 102 lines per 100 inhabitants.

Technological Innovations in Mexico's Digital Ecosystem 2025: Insights from Fuente and EFT's Market Expectations Survey



Likewise, it is estimated that mobile telephone service lines will increase by 2.2% during the same period, which will represent 6.1 million additional lines and a total of 142.1 million lines, or 107 lines per 100 inhabitants. These quantitative projections indicate a sustained increase in the demand for connectivity, opening up investment opportunities in the deployment of 5G networks and the expansion of fiber optic infrastructure, key tools to support the digitalization of public services and infrastructure (IFT, 2022; IFT, 2023).

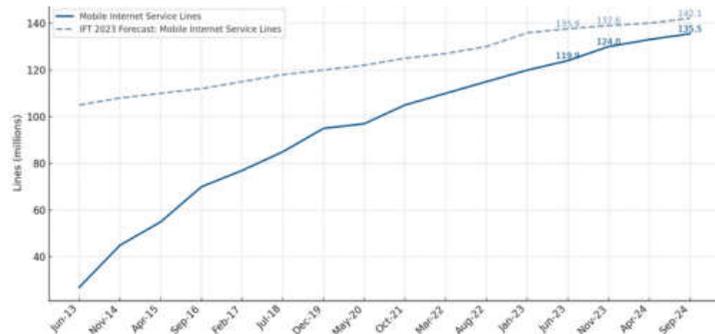
How is Mexico integrating smart grids in sectors such as transportation, energy, and water?

The CFE has implemented smart grid pilot initiatives that include the installation of smart meters and the development of microgrids. Studies indicate that the CFE has deployed more than 2 million smart meters, which has contributed to a reduction in distribution losses of approximately 10% per year (León-Trigo et al., UNAM, 2019). These networks allow two-way communication between generation and consumption, facilitating the integration of renewable sources such as solar and wind, essential for the country's energy transition.

In the transport sector, since 2004, Intelligent Transport Systems (ITS) have been implemented that combine information and telecommunications technologies to optimize the operation and safety of public transport. Projects such as TransIT, promoted in collaboration by SEDATU and GIZ, have allowed the implementation of real-time monitoring systems that have managed to reduce waiting times by up to 15% in cities such as Mexico City (SEDATU & GIZ, 2024). These systems include the integration of sensors, cameras and electronic payment technology, which facilitates the management and coordination of urban mobility.

What incentives are there for investors interested in infrastructure digitalization projects?

One of the most relevant initiatives, which is transversal but applicable to digitalization, is that companies can opt for an immediate deduction of 56% to 89% on investments in new fixed assets, depending on the classification of the asset, and an additional deduction of 25% on training and innovation expenses, applicable until September 2030 (DOF, Decree on fiscal stimuli to support Plan Mexico, 2025). These incentives are available to domestic and foreign companies, and cover sectors such as data centers, 5G networks, and fiber optic deployment. There are also regional incentives: in areas such as the Northern Border and the Interoceanic Corridor of the Isthmus of Tehuantepec, preferential tax treatments are applied, which include reductions in ISR and VAT, which favors the installation of digital infrastructure.



3.4.2 DATA CENTERS: MEXICO AS A REGIONAL TECHNOLOGY HUB.

Mexico has established itself as one of the largest data center markets in Latin America, with 1,269 MW of installed capacity by 2024, with direct investment estimates of more than 7 billion dollars, (Datacenterdynamics, 2024). The following table shows the regions of the country with the greatest relevance in the sector:

State	Developments
Queretaro	It concentrates ~65% of the national capacity. (Datacenterdynamics, 2023). Great projects from AWS, Microsoft, Google announced. In the process of being established and installed 26 data center units (El Economista, 2024)
Nuevo León	Currently, the state has 11 operational data centers that consume 21.3 MW of energy, and a growth of 5% is projected over the next five years. (Datacenterdynamics, 2024)
Jalisco	It is home to at least 7 operational data centers, including facilities from companies such as HostDime, IPXON, Triara, and Kyndryl. These centers offer high-quality colocation, cloud services, and connectivity solutions, backed by robust infrastructures and international certifications such as TIER III (Datacenter Map, 2025)
Durango	The most outstanding project is Fermaca Digital City, an initiative of the Mexican company Grupo Fermaca Dreams, which will invest \$3,500 million dollars in the construction of a hyperscale data center with a capacity of 250 megawatts, the largest in Mexico and possibly in Latin America. (Government of Durango, 2024)
Bajío(Guanajuato, San Luis Potosí)	Layer 9 Data Centers is building the largest data center in Mexico and Latin America in the Amistad Chuy María industrial park, Apaseo el Grande, Guanajuato. With an investment of US\$800 million, the project will have an initial capacity of 64 MW, expandable to 96 MW, and will generate more than 2,500 jobs. This hyperscale center, with 800,000 square feet, is designed to operate on renewable energy and high-quality connectivity. (Millennium, 2023)

3.4.2 DATA CENTERS: MEXICO AS A REGIONAL TECHNOLOGY HUB.

What investment opportunities exist in clean and sustainable energy to supply data centers?

Currently, data centers consume approximately 305 MW, placing Mexico as the second country in Latin America in this indicator (Mexican Association of Data Centers, 2024). Companies such as Equinix have emphasized the signing of long-term agreements to promote new solar and wind projects that reduce the carbon footprint (Milenio.com, 2023). In addition, initiatives such as Finsolar's ExpandSolar+ facilitate the adoption of photovoltaic energy, taking advantage of the excellent solar resources of states such as Sonora and Chihuahua, while wind farms in Oaxaca, Tamaulipas, and Nuevo León can be channeled through private agreements (EnergiaHoy.com, 2023).

The promotion of self-generation and cogeneration is also observed. For example, Microsoft in Querétaro obtained a permit for a 10.32 MW natural gas plant for its data center, which improves the stability of the electricity supply, although these plants must be complemented with renewables to meet environmental goals (Diario.mx, 2023).

On the other hand, Plan Mexico establishes private energy generation goals, with the aim of adding 27 GW in the six-year term, of which 46% will come from private investments (Gob.mx, 2023). This creates a favorable environment for renewables investors to secure supply agreements from both CFE and private data centers.

3.4.3 ADOPTION OF EMERGING TECHNOLOGIES IN CRITICAL INFRASTRUCTURE

What emerging technologies, such as IoT (Internet of Things) and blockchain, are being adopted in critical infrastructure in Mexico?

Technology	Application and Examples
Internet of Things (IoT)	Real-time monitoring of key assets. Example: In the water sector, Mexico City inaugurated in 2024 a C5 system that supervises 11,645 km of primary network and 2,451 km of secondary drinking water network; in energy, the CFE installs fiber optics and sensors in transmission lines in Nuevo León, Coahuila and Tamaulipas; and in transportation, cities such as León use smart traffic lights.
5G Networks	Deployment of high-speed, low-latency connectivity. Example: It enhances telemedicine (remote consultations and HD video), enables remote robotic surgeries, enables connected vehicle systems, and improves logistics fleet management. It is also used to connect IoT sensors in power grids to detect variations or faults.
Blockchain	It is being explored to provide security and transparency in critical processes. Example: Certification of distributed energy production for "collaborative energy", monitoring of supply chains and decentralized registration of consumption in water and health pilot projects.
Edge Computing	Processing data close to the origin to reduce latency. Example: In power grids, edge controllers analyze data from substation sensors to make decisions in milliseconds; in transportation, traffic cameras and connected vehicles process images locally to adjust traffic lights; Providers plan "edge zones" in cities.

Which sectors offer the greatest investment opportunity in the integration of advanced technologies (e.g., transport, water, energy)?

In terms of the adoption of emerging technologies, Mexico is integrating solutions based on the Internet of Things (IoT) into critical infrastructure. For example, in the water sector, Mexico City inaugurated in 2024 a C5 system that monitors 1,200 km of primary network and 11,900 km of secondary drinking water network in real time, using IoT telemetry to detect leaks and distribution failures (El Economista, 2024). In the energy sector, the CFE has begun the installation of fiber optics and control systems in transmission lines in Nuevo León, Coahuila, and Tamaulipas, which allows for the integration of more renewable energies and smart grid management (El financiero, 2024).

In addition, the deployment of 5G networks by operators such as Telcel and AT&T is driving applications in telemedicine, with the possibility of remote consultations and diagnostics in high definition, as well as pilot projects for autonomous vehicles in urban environments (es-us.noticias.yahoo.com, 2024). Edge computing is also being used to process data locally in power grids and transportation systems, enabling millisecond responses to incidents. In transportation, the implementation of smart traffic lights and digital payment systems in cities such as León optimizes traffic management and improves road safety (Government of León, Guanajuato, Mexico 2024).

3.4.4 CYBERSECURITY IN CRITICAL INFRASTRUCTURE

What opportunities exist for the private sector in the development and implementation of cybersecurity solutions in critical infrastructure?

The Mexican cybersecurity market reached a value of USD 2,160 million in 2023 and is estimated to grow to USD 3,190 million by 2028, with a compound annual rate of 8.11% (ICEX, 2023). Within this market, cybersecurity services represent the broadest segment, with USD 1,320 million in estimated revenue for 2023. This growth is partly due to the accelerated digitalisation of critical sectors such as energy, transport and water, which have exposed vulnerabilities without there being yet specialised legislation on the digital protection of critical infrastructure.

This regulatory gap creates an environment in which the private sector can intervene with specialized solutions: design of secure industrial control systems (ICS/SCADA), segmentation of operational networks, real-time threat monitoring, incident response, and regulatory compliance consulting. In addition, the creation of the General Directorate of Cybersecurity in 2025 (SEGURILATAM, 2025) indicates a future institutional professionalization with possible public contracts.

Opportunities are also opening up in training, SOC (Security Operations Center) capacity building, and vulnerability assessment. Given the regulatory and technical lag, the private sector has room to position itself as a strategic provider in the protection of essential national infrastructure.

How is Mexico addressing the growing need for protection against cyber threats in key sectors such as energy, water, and transportation?

Mexico has adopted a fragmented approach to cybersecurity in critical infrastructures. In 2017, the National Cybersecurity Strategy was published, but since then it has not been updated or materialized in a regulatory framework with legal force (Government of Mexico, 2017). To date, there is no federal law in force that specifically regulates the digital protection of systems in sectors such as energy, water or transportation. This omission represents a structural risk, recognised in forums such as the II Congress on Cybersecurity in Critical Infrastructures (SEGURILATAM, 2025), where the exposure of essential assets to external threats was highlighted.

What regulatory frameworks and government programs encourage investment in cybersecurity for critical infrastructure?

Currently, Mexico does not have specific cybersecurity legislation for the protection of critical infrastructures. However, various initiatives have been presented to establish an adequate regulatory framework. In 2023, a proposal for a Federal Cybersecurity Law was presented that seeks to create a National Cybersecurity Agency in charge of coordinating and supervising activities related to digital security in the country (deputies 2023). This agency would be responsible for developing a national cybersecurity strategy and establishing specific measures for the protection of vital sectors, such as financial, health and communications systems.

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3.5 INNOVATION AND SUSTAINABILITY IN INFRESTRUCTURE PROJECTS

3.5.1 GREEN INFRASTRUCTURE: INCORPORATING ESG CRITERIA INTO PROJECTS

What percentage of infrastructure projects in Mexico are integrating ESG criteria, and which are the leading sectors in this trend?

Based on the Proyectos México platform, Banobras reports that 140 projects have been evaluated under a methodology of more than 30 sustainability criteria, covering economic, environmental, social and institutional aspects. This reflects that at least a representative proportion of the priority portfolio of projects in Mexico are already incorporating ESG practices. It is relevant to point out that in relation to Climate Bonds Initiative, Mexico is positioned as the second largest market for labeled bonds in Latin America and the Caribbean.

What tax or regulatory benefits are there for projects that comply with ESG standards?

According to Plan Mexico, companies will be able to deduct in an accelerated manner investments in new fixed assets acquired between January 2025 and September 2030. The deduction percentages vary between 35% and 91%, depending on the type of asset and the corresponding tax year. Also, Plan Mexico grants an additional deduction of 25% on the increase in expenses for technical or scientific training of workers, as well as in technological innovation projects compared to the average of the previous three fiscal years.

The adoption of ESG practices facilitates access to sustainable financial instruments, such as green and social bonds, which have shown significant growth in Mexico.

How are foreign companies participating in green infrastructure projects in Mexico?

Foreign companies are participating through direct investment in renewable energy projects, for example, Iberdrola, which has confirmed its commitment in Mexico with a portfolio of renewable projects of more than 6,000 MW and plans to allocate \$6,200 million dollars in the projects. Also, the companies participate through strategic alliances and international cooperation, as is the case of the French Development Agency and Nafin, which entered into an agreement for \$100 million dollars to strengthen sustainable infrastructure in Mexico, focusing on clean energy projects and urban mobility.

Companies also participate by integrating ESG criteria into their operations, in order to highlight the importance of sustainability in their corporate strategies.

What public-private partnership models are adopting ESG criteria as a basis for investment?

Based on the Proyectos México and Climate Bonds Initiative platforms, Mexico has the following public-private partnership models (hereinafter, "PPPs") that adopt ESG criteria, which not only promote responsible investment, but also align infrastructure with the sustainable development goals:

1. Traditional PPPs with integrated ESG clauses: Adjust to include environmental, social, and governance sustainability requirements in public projects, such as hospitals and transportation.
2. PPPs with sustainable financing: They incorporate certifications such as the Climate Bonds Initiative to access green and social bonds.
3. PPPs with multi-lateral financing: They combine public, private and international organization resources under ESG criteria from the planning phase.
4. PPPs with a focus on social impact: They apply "payment for results" schemes linked to the fulfillment of social or environmental goals, such as health and housing.



3.5.2 Financing and incentives: opportunities for public-private collaboration

What financing schemes are available for sustainable infrastructure projects in Mexico?

At the national level, the National Infrastructure Fund (FONADIN) and the National Bank of Public Works and Services (Banobras) stand out, these organizations offer long-term loans with preferential conditions for projects that generate some positive environmental impact. Regarding the international arena, there is the French Development Agency, which provides financing and technical assistance to projects focused on energy efficiency and climate mitigation.

The Mexican stock market has consolidated the use of green bonds, allowing public and private issuers to raise resources for sustainable initiatives.

What fiscal or financial incentives could attract more private investment to the sector?

According to Plan Mexico, significant fiscal stimuli are contemplated. Among them is the immediate deduction of investments in fixed assets, with rates ranging from 59% to 89%, depending on the sector and the location of the project. This benefit applies especially to high-tech, renewable energy, and advanced manufacturing sectors. In addition, an additional deduction of 25% is offered in training and innovation expenses, thus encouraging companies to invest in the development of sustainable technologies and technologies.

What regulatory frameworks encourage or limit public-private collaboration in innovation and sustainability projects?

The 2012 Law on Public-Private Partnerships and its regulations establish the basis for developing projects under mixed investment schemes, allowing the participation of the private sector in the provision of public services and in the provision of infrastructure. This law seeks to increase investment levels in the country and improve efficiency in the provision of public services.

What barriers do private investors face in the negotiation of contracts and financing in PPPs?

The complexity and rigidity of legal and contractual frameworks. The Public-Private Partnerships Law establishes detailed procedures that, while seeking to ensure transparency and fairness, can result in lengthy and costly processes. This can discourage private sector participation, especially in smaller-scale projects or in sectors with high uncertainty. Also, the distribution of risks between the parties is not always equitable. In some cases, private investors assume significant demand, financing, or operation-related risks, while the guarantees offered by the public sector may be limited or unclear.

How does the perception of risk in Mexico affect the attraction of foreign capital for sustainable projects?

The perception of risk in Mexico significantly influences the attraction of foreign capital for sustainable projects. Factors such as political instability, legal uncertainty, and macroeconomic volatility increase country risk, which can deter international investors, as investors seek stable and predictable environments for their investments. Also, the lack of transparent and reliable information on the performance and profitability of sustainable projects in Mexico increases the perception of risk. The absence of a common framework of guidelines and metrics to evaluate the performance of these projects makes it difficult for investors to make decisions.



UNDERSTANDING OF THE MAIN LEGAL ISSUES RELATED TO ENERGY AND INFRASTRUCTURE

Chapter IV

LEGAL LANDSCAPE RELEVANT TO ENERGY AND INFRASTRUCTURE PROJECTS

The intention of this chapter is to provide international investors with a high-level introduction to the legal landscape relevant to energy and infrastructure projects in Mexico. Recognizing that legal considerations form a critical layer of risk management and project feasibility, this section aims to map out the core regulatory and compliance issues that typically arise in strategic investments across these dynamic sectors.

The chapter begins with **4.1 Corporate Law and Compliance Considerations**, which explores the importance of appropriate corporate structuring and governance practices in Mexico. It explains how the choice of legal entity—whether a limited liability company, a stock corporation, or a trust structure—can influence operational flexibility, liability management, and access to financing. It also highlights key compliance and reporting obligations, including corporate governance requirements, anti-corruption measures, and local content provisions that are increasingly relevant in regulated sectors like energy and infrastructure.

Moving to **4.2 Banking & Project Finance**, this section outlines the key legal aspects of structuring financing for large-scale infrastructure projects.

It delves into project finance models, discussing the contractual frameworks and security packages typically required to secure capital for energy generation, transmission, transportation, and water infrastructure projects. It also provides context on the role of development banks and multilateral agencies in supporting infrastructure financing in Mexico, reflecting the country's reliance on public-private collaboration to meet its ambitious infrastructure goals.

The chapter then transitions to **4.3 Public Procurement and Public-Private Partnerships (PPPs)**, analyzing the evolving legal framework that governs government contracting in Mexico. It details the main procurement procedures—including public tenders, invitations to at least three bidders, and direct awards—as well as recent reforms introducing reverse auctions and negotiated direct awards. It further examines the PPP models available in Mexico, emphasizing how these frameworks enable the private sector to participate in strategic projects under a regulated environment that seeks to balance public oversight with operational efficiency.

In **4.4 Taxes and International Trade**, the guide offers a high-level overview of Mexico's tax landscape, including direct and indirect tax obligations, as well as recent tax decrees and incentives specifically targeting the energy and infrastructure sectors. It also outlines the implications of Mexico's extensive network of trade and investment treaties—particularly the USMCA and bilateral investment treaties—which can influence the structuring and competitiveness of cross-border transactions.

The chapter's **4.5 Labor and Immigration** section addresses the key obligations and regulatory requirements for hiring local personnel and engaging foreign experts in Mexico. It highlights relevant labor laws, safety standards, and social security requirements, as well as procedures for obtaining work permits and residency for international professionals who are integral to complex infrastructure and energy projects.

A critical dimension of any energy and infrastructure project is environmental and social sustainability. Thus, **4.6 Socio-Environmental and ESG Aspects** reviews the principal environmental regulations applicable to these projects, including the need for environmental impact assessments, social impact evaluations, and stakeholder engagement—particularly with indigenous and vulnerable communities. It also touches on broader ESG considerations that are becoming decisive factors in attracting international investment and financing.

4.7 Insolvency Proceedings and Restructuring of Complex Projects provides an introduction to the insolvency framework in Mexico, outlining the main proceedings available under Mexican law to manage financial distress in large infrastructure ventures. It emphasizes the importance of proactive planning and stakeholder alignment to safeguard project viability.

Finally, **4.8 Litigation and Alternative Dispute Resolution** explores the legal avenues available for resolving disputes that can arise over the life of a project. This includes an explanation of judicial processes in Mexico, the growing role of mediation and conciliation as early-stage dispute resolution tools, and the relevance of international and domestic arbitration for investors seeking neutral and specialized fora for complex conflicts.

Caveat

This chapter provides a high-level overview of the legal framework relevant to energy and infrastructure investments in Mexico. It is designed to offer international investors a structured and practical perspective on the principal legal issues that may arise in the planning, development, and operation of projects in these sectors. While we have sought to ensure clarity and accuracy in this outline, it is important to note that the information presented here is general in nature and does not constitute legal advice. Each project's circumstances and legal needs are unique. For investors considering specific opportunities in Mexico, we strongly recommend seeking tailored legal counsel to address the nuances of their transactions and compliance requirements. Our team remains fully available to provide such dedicated support.

4.1

STANDARDS

CORPORATE LAW

AND

COMPLIANCE

CONSIDERATIONS

QUALITY ASSURANCE

REQUIREMENTS



REGULATIONS

TRANSPARENCY



R

4.1.1 APPROPRIATE CORPORATE STRUCTURING FOR STRATEGIC PROJECTS.

In Mexico, energy and infrastructure projects are typically structured through special purpose companies (SPEs), created to isolate project risks and facilitate project financing. The most commonly used corporate forms to constitute an SPE are the Sociedad Anónima de Capital Variable (S.A. de C.V.) and the Sociedad de Responsabilidad Limitada de Capital Variable (S. de R.L. de C.V.), both adopting the variable capital scheme for greater corporate flexibility.

The S.A. de C.V. is comparable to a traditional corporation. It offers an agile structure to attract investors, since its capital is divided into freely transferable shares (except for statutory restrictions). In addition, it allows for the implementation of robust management bodies such as a Board of Directors, and can be easily scaled if a future opening to public markets or fund investments is planned.

S. de R.L. de C.V., on the other hand, operates similarly to a U.S. LLC. It limits participation to a maximum of 50 partners and grants more closed control over the transfer of shares, since any transfer must be approved by the other partners.

This figure is ideal when internal control, stability between partners or the joint operation of a defined group of investors are strategic priorities.

In both corporate forms, the liability of the partners is limited to their contributions, and both allow projects to be capitalized flexibly through capital increases or reductions without the need to modify bylaws, simplifying corporate operations throughout the life of the project.

In addition, projects often incorporate management and guarantee trusts to manage assets and cash flows transparently, protect collateral in favor of financiers, and facilitate the enforcement of rights in default scenarios.

These structures offer investors a robust framework to manage risk, optimize access to financing, and comply with regulatory requirements in strategic sectors such as energy, oil, gas, and public infrastructure.

How long does it take to incorporate a company in Mexico to operate in strategic sectors?

In energy and infrastructure projects under the new constitutional framework, the incorporation of a company and the obtaining of critical sectoral permits requires between 6 and 12 months.

Setting up a company to operate in Mexico took between 4 and 8 weeks, including registration before a notary, public registry and tax registration. However, in strategic sectors such as energy, hydrocarbons and transportation, today the process involves additional steps that extend incorporation and authorization times:

- Basic registration: The incorporation of the company continues to take 1 to 2 months, depending on the complexity of the structure and the notary chosen.
- Sectoral permits: Regulated activities require specific authorizations - for example, generation permits before the CNE, environmental permits before ASEA - which can take an additional 3 to 6 months. The above assuming that the times are similar to those of the CRE.
- Financial due diligence and compliance: For projects financed or involving development banking, the structuring and validation process can add 2 to 4 months.

Timelines vary depending on the type of project, the geographical location, the nature of the regulated activity and the responsiveness of the authorities. In non-strategic sectors or in conventional operations, the traditional terms of 4 to 8 weeks are still valid.

What legal and contractual risks must be managed when structuring financing based on future cash flows (Project Finance)?

The main legal and contractual risks that need to be managed include both operational and regulatory aspects. Construction, operation, and supply contracts should be designed to minimize the risk of schedule breaches, technical defects, or ambiguous force majeure clauses that may affect projected revenue generation.

It is also essential to foresee the impact of regulatory changes, tariff modifications or state interventions, particularly relevant in strategic sectors such as energy under the new Mexican constitutional framework of 2024 and 2025.

From a financial point of view, exchange rate volatility, interest rate fluctuations and unforeseen inflation can deteriorate the project's flows and affect its debt servicing capacity.

The main legal and contractual risks that need to be managed include both operational and regulatory aspects. Construction, operation, and supply contracts should be designed to minimize the risk of schedule breaches, technical defects, or ambiguous force majeure clauses that may affect projected revenue generation.

Another critical aspect is the structure of guarantees: it is essential to ensure that pledges on future rights, flow trusts and step-in rights are enforceable in an agile way even in bankruptcy scenarios. Finally, environmental, social, and community rejection risks also require clear mitigation strategies to preserve operational stability. A solid design of contracts, guarantees and financial coverage, complemented by in-depth regulatory due diligence, is key to ensuring the legal and financial viability of projects financed under this modality.

Type of risk	Description
Contractual	Failure to comply with schedules, ambiguous clauses
Regulatory and political	Regulatory changes, state intervention
Financial	Exchange rate volatility, interest rates, inflation
Operative	Technical failures, poor management, limited insurance
Guarantee structure	Difficulties in enforcing guarantees on future flows
Environmental and Social	EU rejection, ecological sanctions

How do local guarantees and regulatory compliance affect access to financing?

Access to financing for energy and infrastructure projects in Mexico depends largely on the strength of local guarantees and rigorous compliance with applicable regulations. From the perspective of creditors, guarantees must be clear, enforceable and effective under Mexican law, whether through mortgages, pledges, management trusts or guarantees on future rights. The lack of certainty or complexity in the execution of guarantees can increase the cost of funding or even limit access to international financing.

Likewise, strict regulatory compliance—in terms of sectoral permits, environmental licenses, compliance with constitutional reforms, or alignment with international agreements such as the USMCA—is essential to preserve the bankability of the project. Funders assess not only the existence of permits, but also the legal soundness of acquired rights and regulatory stability to support future flows. Projects that present risks of revocation, delay or legal instability face higher risk premiums, stricter financial conditions or directly the refusal of financing. In strategic sectors, where recent regulatory changes have strengthened state control, structuring robust local guarantees and maintaining a high level of compliance is essential to sustain the confidence of commercial banks, export credit agencies and development banks.

4.1.2 REGULATORY REQUIREMENTS AND CORPORATE GOVERNANCE IN KEY SECTORS.

What corporate governance obligations apply specifically to foreign companies in Mexico? What corporate governance obligations apply specifically to foreign companies in Mexico?

Foreign companies involved in energy and infrastructure projects in Mexico must comply with stricter corporate governance obligations starting with the 2024 constitutional reform, which strengthened state involvement and regulatory oversight. From their incorporation, these companies must be structured in accordance with Mexican legislation, including the obligation to form special purpose companies (SPEs) when the project involves strategic infrastructure, and the integration of risk and audit committees in accordance with the standards of the General Law of Commercial Companies and the National Banking and Securities Commission (CNBV).

They must also comply with ESG criteria required in the sector, such as sustainability reports under SASB standards, social impact assessments, compliance with environmental standards (NOM-163-SEMARNAT) and application of certified anti-corruption policies.

Participation in strategic projects also implies adapting to mandatory planning instruments such as PRODESEN and coordinating investments with CENACE. In addition, trusts and mixed infrastructure structures may require the inclusion of representatives of the Department of Energy in their governing bodies.

At the operational level, transparency in public procurement, the implementation of dispute resolution mechanisms, and the publication of contracts on the National Digital Platform are unavoidable demands. Failure to comply with these obligations can result in significant fines, revocation of permits or disqualification from participating in future public proceedings. Integrating these practices from the design of the projects not only complies with Mexican legal provisions, but also protects the financial and reputational viability of foreign investments in strategic sectors.

What local regulations should be considered when implementing compliance policies, such as anti-corruption and transparency?

In Mexico, the implementation of compliance policies in energy and infrastructure projects should focus primarily on the Anti-Money Laundering and Terrorist Financing (AML/CFT) framework. Foreign investors should consider that the Federal Law for the Prevention and Identification of Operations with Resources of Illicit Origin (LFPIORPI) establishes specific obligations for activities considered vulnerable, including the construction, development and commercialization of strategic infrastructure. Among the obligations are the identification and knowledge of the customer (KYC), the integration of identification files, the reporting of relevant operations and the immediate notification of unusual activities to the Financial Intelligence Unit (FIU).

In addition, projects with government participation must comply with enhanced transparency requirements, including beneficial ownership disclosure and ongoing due diligence on local partners and suppliers. The recent energy reform of 2024-2025 also eliminated traditional banking and tax secrecy protections for hydrocarbon operators, requiring them to report sensitive financial and commercial information to the National Energy Information System. Failure to comply with these obligations can result in severe administrative sanctions, regulatory blockages and, in serious cases, criminal liability for legal representatives and administrators.

Therefore, compliance strategies in strategic projects must integrate robust mechanisms for transactional monitoring, counterparty verification, and real-time reporting, adapted to the new regulatory environment of state control and greater financial supervision.

4.2 BANKING & PROJECT FINANCE



What types of guarantees are most accepted by international markets in Mexican projects?

In energy and infrastructure projects in Mexico, international markets prefer guarantee schemes that provide rapid execution and effective risk coverage. Among the most widely accepted instruments are performance bonds, which ensure the correct execution of the contract; advance payment bonds, which protect the funds delivered at the beginning of the project; and maintenance warranties, which cover post-delivery defects. Stand-by letters of credit are also widely used, as they allow beneficiaries to demand immediate payments in the event of default, with standardized and globally recognized procedures.

In Mexican public projects or exports, the buyer guarantees backed by Bancomext offer an additional layer of protection against default risks. To protect their interests in the event of financial conflicts or defaults, companies often incorporate international arbitration clauses into their contracts, choosing forums such as the ICC in Paris or ICSID. In addition, direct agreements with creditors allow funders to intervene directly in key contracts if the sponsor defaults. In addition, the use of foreign exchange hedges, credit insurance, local bonds and accelerated guarantee execution mechanisms strengthen the financial position in adverse scenarios. The appropriate combination of financial instruments and legal protection mechanisms is essential to ensure the bankability of projects in the current environment of enhanced supervision and regulatory risks in Mexico.

How can companies protect their interests in the event of financial conflicts or defaults?

To protect their interests in the event of conflicts or financial defaults in energy and infrastructure projects in Mexico, companies must structure contractual and financial mechanisms that allow them to act in an agile and effective manner. The inclusion of international arbitration clauses in key contracts, selecting forums such as the International Chamber of Commerce (ICC) or ICSID, offers a neutral and recognized avenue for resolving disputes outside of local jurisdictions.

Likewise, direct agreements between sponsors, financiers and contractors allow creditors to assume or intervene in operating contracts if there is a relevant default, ensuring the continuity of the project. Financial instruments such as stand-by letters of credit, credit insurance, and performance bonds provide additional protections by facilitating the rapid execution of economic hedges in the event of default.

In the current context, where regulatory risks and state intervention have intensified after the 2024 energy reform, it is also essential to agree on accelerated liquidation clauses, allow collateral replacement mechanisms and maintain controlled fund flow structures through management and guarantee trusts.



4.3 PUBLIC PROCUREMENT AND PUBLIC- PRIVATE PARTNERSHIPS (PPPS)

4.3.1 LEGAL FRAMEWORK FOR TENDERS AND PUBLIC PROCUREMENT.

In Mexico, the acquisitions, leases and services that the State contracts with private individuals are mainly regulated by the Law on Acquisitions, Leases and Services of the Public Sector (LAASSP) and the execution of works by the Law on Public Works and Related Services (LOPSRM). These laws define the available contracting modalities - including public bidding, restricted invitation, direct award, reverse auction and competitive dialogue - and establish the rules of the game for selecting suppliers with criteria of transparency, competition and efficiency.



4.3.2 LOCAL CONTENT REQUIREMENTS IN GOVERNMENT PROCUREMENT

In Mexico, public procurement regulations require projects to include a minimum percentage of local content, understood as the proportion of total expenditure that must be directed to the acquisition of goods and services produced in the country, the hiring of Mexican labor, and investment in training, technology transfer, and local infrastructure. This measure seeks to strengthen the domestic economy and develop technical capacities in the regions where the projects are carried out.

Against this backdrop, current policies propose a new industrialization strategy that ensures that economic growth not only translates into more exports, but also into greater industrialization in the country. One of its main objectives is to increase the participation of Mexican companies in the export supply chain.

If Mexico manages to increase its productive integration, it will reduce its dependence on imports and strengthen its industrial sovereignty. This will also benefit the working population, since production with greater national content generates better-paid jobs with greater stability (National Development Plan, 2025).

In line with these priorities, considering the new national policies, the LAASSP was recently reformed, in which the percentage of national content was increased to at least 65%, which will be determined taking into account labor, inputs of goods and other aspects that the authorities determine.

4.4 TAXES AND INTERNATIONAL TRADE



€ 100
€ 28
€ 7.22
€ 25.73
€ 90.66
€ 24.40
€ 14.21
€ 38.47
€ 64.59
€ 54.18

4.4.1 GENERAL TAX OBLIGATIONS MEXICO (DIRECT AND INDIRECT TAXES)

What tax obligations must foreign companies comply with in Mexico, including obtaining a Federal Taxpayer Registry (RFC)?

The obligations of foreign companies acting in Mexico vary according to their activity, period of the same, however, if the foreign company intends to carry out acts of commerce in Mexico, it will be necessary to obtain its registration in the Federal Taxpayers Registry, obtain an electronic signature certificate, activate its tax mailbox and if applicable, have the tax domicile declared to the Mexican authorities as verified and taxpayer located at the domicile and carry your Electronic accounting up to date

Regardless of the company's registration in the R.F.C., it is obliged to pay the Value Added Tax generated by its activities in Mexico either via declaration or withholding. The declarations have two characteristics, provisional and definitive, with the provisional ones being filed monthly no later than the 17th of each month and the final ones monthly during the month of March.

Companies must also pay the tax on your income obtained in Mexico, it is an annual tax that is calculated using a progressive rate ranging from 2% to 35% and the withholdings that Mexican laws require them to make and pay.

Likewise, all the states of the country charge a variable rate of payroll tax (from 2 to 4% depending on the state in which the company is registered as an employer), this is monthly and is generally paid before the 17th of each month.

What direct and indirect taxes apply to foreign companies operating in Mexico?

Mainly the following taxes:

Income Tax, on gains earned in Mexico or on income-generating assets in Mexico

Value Added Tax on the sale of goods, services and other consumption activities in Mexico, as well as on the importation of goods and services, which is calculated for each operation and is paid in the latter case at customs clearance of the goods.

Special Tax on Production and Services for the import of fossil, automotive and non-fossil fuels with fixed quotas per liter that are adjusted monthly.

Payroll Tax: The rate varies according to the state in which the company is incorporated as a monthly payment employer.

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How are Value Added Tax (VAT) and Income Tax (ISR) returns calculated and filed for foreign companies?

Both obligations are fulfilled through electronic platforms, and include the obligation to keep electronic accounts. The Value Added Tax has a general rate of 16% in most of the country with the exception of the northern and southern border area of the country, where the rate for the provision of services, disposal, use or import of goods is 8%.

Each month, provisional VAT and ISR returns are filed with their corresponding provisional payment, if applicable, and in the month of March, the final annual return of legal entities is filed with their obligations to be paid, final deductions and withholdings applicable on account.

Income tax is also complied with with the filing of provisional returns each month and the final annual declaration of each fiscal year and is calculated based on the income registered by the company in Mexico or the income produced by its investments in Mexico based on a progressive rate, in relation to said income ranging from 2 to 35%.

4.4.2 TAX DECREES IN THE MEXICO PLAN - INVESTMENT INCENTIVES (ACCELERATED DEPRECIATION).

What tax incentives, such as accelerated depreciation, are available to companies investing in Mexico?

From January 22, 2025 to September 30, 2030 (for some benefits see the figure in particular) the Mexican government granted fiscal stimuli to support the "Plan Mexico" strategy, and thus encourage new investments, which encourage training programs and promote innovation, through which national companies that have the capacity to integrate into value chains are promoted.

The main benefits granted by the decree are the following:

Accelerated deduction of investments in "new" fixed assets. This benefit will allow the deduction in the same year in which the investment is made of the amount that results from applying to the original amount of the investment and the percentages that are established in the decree that are higher than those indicated in the Income Tax Law (2025 and 2026 depreciation percentages range from 41 percent to 91 percent, 2027 to 2030, from 35 percent to 89 percent depending on the type of asset and the activity carried out by the taxpayer).

Additional deduction equivalent to 25 per cent of the increase in the expenditure on training that each of its workers receives in the fiscal year in question or for the expenditure expended on innovation, with respect to the average expenditure disbursed in the last three fiscal years, with the expenditure on innovation being those linked to investment projects for the development of the invention that allow the acquisition of the invention of patents and those investment projects that are developed to obtain initial certifications required by taxpayers for their integration into the supply chains.

Which specific sectors benefit from these fiscal stimuli and what are the requirements to access them?

These benefits are available to legal entities registered in the Federal Taxpayers Registry under the General Regime or Simplified Trust Regime for legal entities, as well as some individuals with professional business activity

How does the immediate deduction of investments in new fixed assets affect the tax burden of foreign companies?

These benefits reduce the taxable burden for companies in terms of income tax and facilitate their cash flow, by deducting from their taxable income immediately the expenses incurred for the acquisition of new fixed assets (those strictly related to their business activity) and training provided for their workers registered with the Mexican Social Security Institute

4.4.3 TAX COMPLIANCE FOR FOREIGN INVESTORS

What tax procedures are necessary to start operations and how long do they take on average?

To register the entity incorporated in Mexico through which they would carry out their commercial operations within the country, to appoint the legal representatives conducive to act on behalf of the company with administrative powers to allow them to represent them in tax matters and to register them with the Tax Administration Service, to register the lucrative activities that will be carried out with the Treasury, designate a tax address and request its verification to have the taxpayer as located at their home, register the means of contact with the tax authority such as the tax mailbox, as well as obtain their advanced electronic signature and the tax stamps that will be used for the invoicing of their income.

What specific tax obligations apply to foreign companies in strategic sectors such as energy and infrastructure?

Depending on the type of energy that is handled, there is the payment of Special Tax on Production and Services on the import and sale of the same, the payment for royalties and rights of exploitation and exploration of deposits in Mexico dictated by the Law of Income on Hydrocarbons, which depending on the contract can be paid in monetary or in kind, extraordinary duties for the export of crude oil, for the correct control of compliance with the obligations of companies in the sector in various activities, they are requested to carry out precise volumetric controls in real time and with the characteristics required by the customs authority.

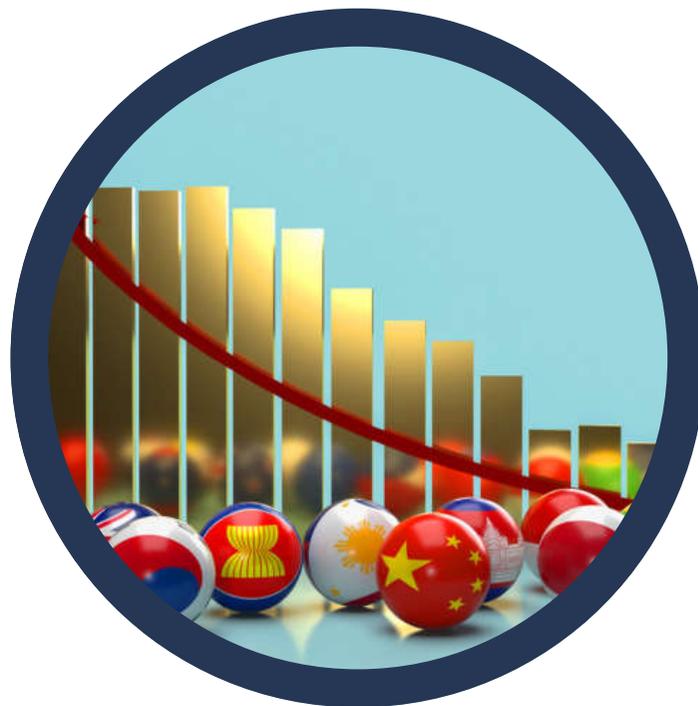
The tax payment structure may vary according to the area in which the company's activity is carried out, there are also some tax incentives applicable to the operation and installation of renewable energies, both local and federal, that must be consulted on a case-by-case basis.

How does double taxation affect it and what bilateral treaties exist to avoid it? Regardless of the particular treaty, what is the general functioning of these?

Mexico has a wide network of treaties signed to avoid double taxation with an average of 50 countries, the operation of each Treaty can vary from the granting of tax exemption to obtain certain income to the granting of preferential rates to tax them.

In general, the first thing that must be evaluated for the application of these Treaties is that both the country where the wealth to be taxed is obtained and the country of residence of the subject are Parties to said Treaty, that the status of tax resident in a State Party and the other requirements established by the specific treaty are accredited. the Income Tax Law, compliance with the requirements of transparency in the applicant's tax information and a profile of compliance with general tax obligations traceable to the Mexican tax authorities, especially with regard to transactions with related parties.

These instruments generally establish tax benefits for parties that prove to be so, so their application could be involved in tax planning schemes that the Mexican authority would need to review before their application or recognition.



4.4.4 TAX BENEFITS AND TRADE TREATY IMPLICATIONS

What tax incentives are available for energy and infrastructure projects under trade agreements such as the USMCA or CPTPP?

The aforementioned Free Trade Agreements provide greater certainty and encouragement to the reception of investments in the sector, seeking to maintain current and dynamic inventories for the Parties in addition to ensuring the access of their assets to energy distribution networks, under these treaties the investments made by resident companies of the States Parties receive the protection of their corresponding investment chapters and their dispute settlement models Simplified.

Another advantage that some companies in the energy sector have valued is in relation to the payment of Customs Processing Fees, this is a fee charged by the state for using its facilities and services to carry out clearance operations for the import and export of goods, generally paid for each operation that is carried out using an import pedimento which is the document necessary to carry out the customs clearance of its goods. goods, when imports are made at a general rate, without the use of a Treaty, the customs processing fee to be paid is 8 to a thousand of the total value of the imported merchandise, when using a Free Trade Agreement, depending on the text of the same, it will be exempt from its payment or it is adjusted to a fixed rate of the same that ranges from \$420 to \$455 Mexican pesos per operation, depending on the merchandise and import regime.

How do rules of origin work in international treaties and their impact on energy projects and international trade?

The rules of origin vary according to the text of each treaty, however they all start from correctly determining the tariff code of each good that is sought to be imported, each tariff code of each component can have a specific rule of origin and evaluate whether the good is considered originating by:

- a. Be wholly obtained from the territory of one of the country Parties
- b. Be wholly produced in a State Party with materials originating in that State Party
- c. Be considered originating by an accumulation of production origins agreed between the States Parties.
- d. Be produced by a mixture of originating and non-originating materials where the latter have undergone sufficient transformation in the production process to be considered as originating (sufficient transformation or sufficient tariff change is qualified for each product with a specific rule of origin)
- e. Contain a sufficient percentage of originating materials determined by the rule of origin specifically applicable to its tariff code.

What tax or customs procedures are necessary to access benefits under these treaties?

The procedures may vary from Treaty to Treaty, but the main focus is on obtaining the corresponding certification of origin, (by certification or certified exporter number) whose procedure may vary in each international instrument, however, it may fall into one of these three schemes:

- Certificate of origin of free subscription. Containing certain information determined by the Treaty, but without a strict format, importers, exporters or manufacturers may state in the free document that the product they guarantee by tariff code originates in a State Party based on one of the origin criteria recognized by the Treaty to be applied
- Certificate of origin with prior format, where, in accordance with the format established by the treaty, the exporter and/or manufacturer of the product (person authorized to issue it by the Treaty) establishes that the good originates in a State Party in accordance with the application of one of the criteria of origin recognized by the Treaty
- Certificate of origin endorsed and issued by the authority designated by each State Party (strict issuance). In this case, the department of state, office or authority designated in the Treaty by each State Party inspects the goods, makes an evaluation of their production or conducts a questionnaire to issue with its seal and signature a certificate that endorses the declaration of origin of the same in accordance with one of the criteria recognized by the treaty to be applied.



4.5 LABOR & IMMIGRATION



4.5.1 HIRING AND PERMITTING FOR QUALIFIED EXPATS.

[What types of visas and work permits are available to qualified expats on strategic projects?](#)

To be eligible to work or participate in specific projects in Mexico, a foreign national (expatriate) must be qualified for the position they will hold.

The most common visa for these purposes is the Visitor Visa with Permission to Engage in Paid Activities (based on a job offer), which must be requested with prior authorization from the National Immigration Institute (INM).

This visa is intended for foreign nationals entering Mexico as visitors to engage in remunerated activities. In order to hire an expatriate under this visa type, the Mexican company must have a valid Employer Registration Certificate issued by the INM, which authorizes the company to extend job offers to foreign nationals.

Holders of this visa acquire tax and labor obligations in Mexico and must therefore register with the appropriate authorities and comply with applicable regulations.

Alternatively, there is the Temporary Resident Visa by Invitation from a Public or Private Institution or Organization (invitation letter). This visa is for foreign nationals invited by a Mexican public or private institution to participate in a specific project for a limited period. Unlike the employment-based visa, this visa does not allow the foreign national to be hired by a Mexican company. Therefore, the compensation must be paid from abroad. In such cases, the applicant must demonstrate sufficient financial means to cover their stay in Mexico, or the inviting institution must prove that it has the necessary resources to assume that responsibility.

[How long does it take to obtain work permits and what specific requirements must be met?](#)

The time to obtain a work permit varies depending on factors such as the type of visa requested and the processing time provided by the National Immigration Institute (INM). Generally, it may take between 15 to 30 business days from the date the complete application is submitted.

Specific requirements for applying for a visa based on a job offer in Mexico include:

1. Proof of payment of government fees: Submission of the official receipt for the applicable government fees.
2. Job offer letter and legal representative's valid ID: A letter on company letterhead, signed by the legal representative of the Mexican company offering employment to the foreign national. The letter must state the proposed activity, initial contract term (typically one year), workplace location, gross monthly salary, and updated information from the company's Employer Registration Certificate.
3. Copy of the applicant's valid passport: The passport must be valid for at least six months prior to the foreign national's entry into Mexico.
4. Copy of current valid visas: If applicable, the applicant must disclose and provide documentation of any other valid visas they currently hold.

The immigration authority may conduct a verification visit to confirm the job offer and the employer's existence. In the event of a positive resolution, a migration authorization will be issued, allowing the foreigner to schedule a consular interview at the Mexican Consulate in their country of origin within the next 30 business days from the issuance date of such authorization. In the event of a negative resolution, a reasoned and substantiated resolution will be issued by the authority for re-entry.

[What minimum labor benefits must be guaranteed to expatriates under Mexican law?](#)

Expatriates working in the country must enjoy the minimum labor benefits established by the Federal Labor Law. This includes the right to a living wage, which cannot be less than the minimum established in the country, as well as the right to receive benefits such as annual leave (minimum six days a year), Christmas bonus (equivalent to at least 15 days' salary per year) and vacation bonus. In addition, they must have access to social security through the Mexican Social Security Institute (IMSS), which covers medical care, disability benefits, maternity and pension. They are also entitled to working hours not exceeding 48 hours per week, and in the case of night or holiday work, they must receive additional payment in accordance with the law. Expats must also have an employment contract detailing their rights and obligations, and they must be protected against any form of employment discrimination.

4.5.2 LABOR OBLIGATIONS AND SAFETY REGULATIONS.

What specific labor regulations apply to energy and infrastructure projects, and how do they affect operation?

The operation of projects in Mexico is supported by a robust labor legal framework, whose purpose is to protect workers' rights and guarantee a safe and stable work environment. The Federal Labor Law (LFT) establishes the obligation to pay wages, define maximum working hours and rest periods, among others. In addition, the Social Security Law (LSS) requires employers to register their personnel with the Mexican Social Security Institute (IMSS) and pay the corresponding fees, ensuring access to medical services and other essential benefits. In addition, various Official Mexican Standards, for example, relating to occupational hazards, establish specific safety and hygiene criteria for industries.

Likewise, labor regulations require the implementation of internal risk prevention policies and the implementation of continuous training programs, ranging from the safe handling of machinery and personal protective equipment to first aid courses. By adopting these measures, companies reduce the likelihood of accidents, improve productivity, and strengthen the trust of their employees.

In terms of subcontracting, the recent reforms to the LFT impose clear restrictions: only highly specialized services that are outside the company's corporate purpose, such as cleaning, security or maintenance of facilities, can be outsourced. The providers of these services must mandatorily register in the Public Registry of the STPS and demonstrate compliance with their obligations. On the other hand, it is strictly forbidden to subcontract functions that constitute the operational core of the company.

Finally, the legal framework recognizes the right of workers to organize and negotiate conditions through unions. The LFT supports the creation of unions and the signing of collective agreements, which allow labor improvements to be negotiated.

What should be done to comply with occupational safety regulations and avoid sanctions?

To ensure compliance with occupational safety regulations in Mexico and avoid sanctions, every company must have occupational health and safety programs that begin with the identification and evaluation of risks in each area of operation, and continue with continuous training programs aimed at all levels of the organization. This training includes accident prevention, proper handling of hazardous materials, and response to emergency situations, in accordance with the guidelines of the NOM issued by the STPS. At the same time, it is essential to provide employees with personal protective equipment and facilities with the minimum required infrastructure - signage, evacuation routes and fire protection systems - as established by the corresponding NOMs, in order to reduce the probability of incidents as much as possible and guarantee a safe working environment.

As mentioned above, the mandatory affiliation of workers to the Mexican Social Security Institute (IMSS) grants them access to medical services, disabilities, and social security benefits. To demonstrate a real commitment to occupational safety and prevent fines that can be high in the event of negative inspections, it is recommended to carry out periodic internal audits to detect any deficiencies in the processes in time, correct non-compliances and update procedures proactively.



4.6 SOCIO- ENVIRONMENTAL AND ESG ASPECTS.



4.6.1 KEY ENVIRONMENTAL REGULATIONS IN STRATEGIC PROJECTS.

What environmental and social permits are relevant for strategic projects in Mexico?

To develop an energy project in Mexico, it is essential to have a series of permits and authorizations that ensure compliance with environmental and social standards. Among the most relevant permits are the Environmental Impact Statement (EIS) and the Social Impact Statement (MIS), two fundamental instruments that allow authorities to assess the potential effects of a project both on the natural environment and on nearby communities. Although there are other necessary procedures - such as land use, water concessions or emission permits - the EIS and the MIS are especially relevant because of their comprehensive scope and the weight they have in the approval of the projec

4.6.2 OVERVIEW OF ENVIRONMENTAL AND SOCIAL PERMITS

The EIS is a technical study that identifies, describes and evaluates the possible effects that the project will have on the environment. In addition, it proposes specific actions to prevent, mitigate or compensate for these impacts, ensuring that the development of the work does not compromise the ecological balance. It also includes an environmental monitoring plan to follow up on the measures implemented during construction and operation.

For its part, the MIS analyzes how the project can affect the lives of the people who live in the area of influence. This includes changes in economic, social and cultural dynamics, possible displacements, impacts on access to basic services, as well as perceptions and concerns of the local population. This document must also propose a community relationship plan, which includes mechanisms for dialogue, consultation and participation, as well as strategies to generate shared benefits, such as local employment or social development programs.

Along with these studies, there are other key permits that are part of the general framework of authorizations. One of them is the land use authorization, which is generally issued by municipal or state authorities, and which validates that the type of activity to be carried out is compatible with the zoning of the land, where a change of use may be necessary to allow industrial or energy activities.

In the case of projects that require the use of water resources, such as hydroelectric or combined cycle plants, it is necessary to obtain a water concession, which is granted by the National Water Commission (CONAGUA). This concession defines the conditions under which the resource must be used. In addition, if the project involves the return of water to the natural environment after use, the corresponding discharge permit must also be processed.

Finally, in projects that generate atmospheric emissions or waste, specific permits must be processed with the environmental authority to register polluting emissions and hazardous waste, as well as establish control measures. These permits are designed to ensure that emissions are kept within the limits allowed by regulations and that there is an adequate plan for their management and disposal.

4.6.3 GENERAL RECOMMENDATIONS

Before undertaking a project in Mexico, especially in strategic sectors such as energy, it is highly recommended that investors carry out a rigorous process of legal, environmental and social due diligence. This preliminary analysis not only allows the timely identification of the permits, licenses and authorizations that will be necessary for the development of the project, but also helps to prevent legal risks, sanctions and social problems.

Mexico has a solid regulatory framework in environmental and social matters, and although there is a general structure of permits applicable to most projects, the reality is that there is no single or standard list. The requirements change depending on the type of project, its geographical location, technology, use of natural resources, type of soil, interaction with local communities, among many other factors. That is why it is crucial to analyze case by case.

Through due diligence, investors can know from the beginning what procedures they must manage, before which authorities they must appear, at what times of the project they must do so and what technical or social studies they must prepare, but the detail of their application depends on the specific characteristics of the project.

Carrying out this process in advance allow companies to trace a clear route of compliance, foresee management times and avoid surprises during the execution of the project. It also contributes to building a more transparent and solid relationship with authorities, communities and other key actors. In short, conducting comprehensive due diligence should not be seen as an administrative burden, but as a strategic investment. It is a tool that allows the investor to make informed decisions, reduce uncertainty, protect their capital and increase the chances of long-term success of the project.

4.7 INSOLVENCY PROCEEDINGS AND RESTRUCTURING OF COMPLEX PROJECTS

4.7.1 BANKRUPTCY

What are the main objectives of bankruptcy in Mexico, and how does it differ from bankruptcy proceedings in other jurisdictions?

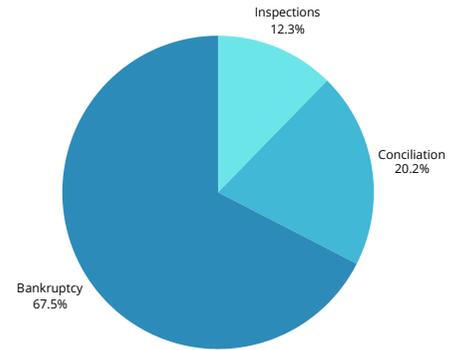
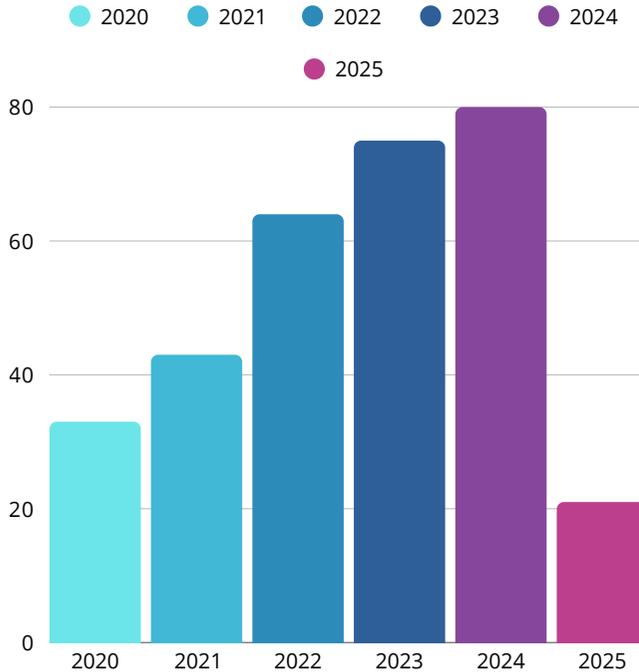
Bankruptcy is a judicial procedure provided for in the Bankruptcy Law, whose central purpose is to preserve the operation of companies facing insolvency, ensuring that they restructure their debts through an agreement with their creditors or, if this is not possible, proceed to an orderly liquidation of assets. It consists of two stages: conciliation and bankruptcy. In the first, an attempt is made to reach an agreement between the merchant and his creditors; in the second, the bankruptcy assets are liquidated in accordance with the order of priority provided for by law.

Unlike other systems, such as the U.S. Chapter 11, the Mexican process is more rigid in its processing, offers limited access to financing during the proceeding, and is strictly regulated by federal civil courts. In contrast, the U.S. regime allows for greater operational flexibility and mechanisms designed to facilitate post-request financing, while keeping the debtor at the discretion of the debtor.

Aspect	Bankruptcy (Mexico)	Bankruptcy/Bankruptcy (e.g. Chapter 11, USA)
Main objective	Preserve business and restructure debts or liquidate in an orderly manner	Preserving business and restructuring debts with greater flexibility
Main stages	Conciliation and bankruptcy	Filing the application, drawing up a reorganization plan, creditors voting on the plan, and confirming the plan by the court
Procedure	Judicial, with district judge and conciliator/trustee	Judicial, with greater access to federal funding and oversight
Access to finance	Limited	More broad, it allows financing for operation during the process
Time and flexibility	Less flexible, more rigid process and with judicial times	More flexible, designed to keep operations running

What percentage of cases manage to be successfully restructured without reaching liquidation?

Between 2020 and 2025, the Federal Institute of Bankruptcy Specialists (IFECOM) reported a cumulative total of 316 admitted bankruptcies.



Despite the legal framework that prioritizes conciliation, there are no official statistics that indicate how many procedures are successfully concluded through an agreement without reaching liquidation. Experience suggests that most bankruptcy proceedings conclude without reaching an agreement, given the limitations of access to financing, the reluctance of creditors and the negative cultural perception surrounding the procedure.

Compared to other jurisdictions, the volume is very low. While Mexico has registered an average of 38 annual bankruptcies, in the United States 747 Chapter 11 filings were filed in Texas alone during 2019. These figures illustrate a low use of bankruptcy as a tool for restructuring in Mexico.

What are the limits of liability of the parties involved in a commercial bankruptcy?

The merchant declared bankrupt is liable with his assets, made up of all his assets, except those that cannot be attached. Creditors must present their claims so that they can be recognized and participate in the conciliation or liquidation, in accordance with the order of priority provided for by law: labor claims, secured claims and, lastly, unsecured or subordinated claims.

In limited liability companies such as the Public Limited Company and the Limited Liability Company, this is limited to the payment of their contributions, except for creditor fraud. In unlimited liability companies (such as companies with a collective name, limited partnership and limited partnership by shares) the partners may be subject to bankruptcy if their direct liability is proven and they respond with all their assets except that which is unseizable. In the event of the death of the merchant, the estate may be subject to the procedure, but the heirs are not liable with their personal assets, but only with the inherited assets.

Conciliators and receivers have a legal obligation to act diligently and may be civilly liable in the event of negligence. Its performance is supervised by IFECOM. Judges may also incur administrative liability if they fail to comply with deadlines or procedural acts provided for in the law.

Part	Limit of liability
Merchant	All their assets, except those that cannot be seized by law
Shareholders Partners (limited)	To the value of their contributions, except for creditor fraud.
Members (unlimited)	Personal assets, unless proof of sufficiency to cover debts of the company
Heirs	Only up to the value of the inherited estate (inventory benefit)
Creditors	They participate only if their credits are recognized; They can veto agreements if they have $\geq 50\%$ credits
Conciliator	Negligence liability; supervision of IFECOM

What alternatives to bankruptcy are available for companies in financial problems?

There are several alternatives for companies in financial difficulties before resorting to bankruptcy. The most direct is bilateral negotiation with creditors, through private writing, write-off or refinancing agreements. The figure of amicable composition is also contemplated, provided for in the Bankruptcy Law as a prior mechanism, as well as alternative dispute resolution methods (ADR), including financial mediation or arbitration to resolve specific disputes.

Another tool is pre-packaged reorganization, where the debtor negotiates a plan with key creditors and submits it along with their bankruptcy application, seeking to speed up the reconciliation stage. Guarantee trusts are also used to protect strategic assets (such as plants or machinery) during trading, preventing their seizure and allowing their continued operation.

Commercial banks and private investors play an important role in out-of-court restructurings. They can offer conditional refinancing, conversion of overdue interest into long-term debt or capital injection in exchange for shareholding. Coordination among creditors, through committees, can facilitate a joint solution and avoid individual litigation that hinders recovery.

Alternative	Main advantage	Main risk
Direct negotiation	Speed and confidentiality	It depends on the will of the creditors
Guarantee Trust	Immediate asset protection	Fiduciary costs; Possible dispute over effects
Private investors	Urgent liquidity	Stock dilution or loss of control
Mediation / ADR	Low cost and high voluntary compliance	Lack of familiarity or cultural rejection
Pre-packaged restructuring	Streamlines the contest; Avoid bankruptcy	Requires extensive prior agreement with creditors

4.7.2 LITIGATION AND ALTERNATIVE DISPUTE RESOLUTION

What are the most common court procedures to resolve disputes related to energy and infrastructure in Mexico?

In Mexico, disputes related to the energy and infrastructure sector are resolved mainly through amparo proceedings, administrative litigation and, to a lesser extent, constitutional controversies. The amparo trial is the means of constitutional control par excellence and is used to challenge acts of authority that violate fundamental rights, such as the revocation of permits, the denial of registrations or the unilateral modification of regulatory frameworks. An illustrative example is the case of Iberdrola in 2022, when the provisional suspension was granted to keep a self-supply permit revoked by the CRE in force.

Administrative litigation is filed against resolutions issued by authorities such as the CRE, SENER or CNH. Those affected can file appeals for review and subsequently file lawsuits before federal courts. Likewise, constitutional controversies have been used by states to question acts of the federal executive in energy matters, although they are less frequent due to their strict procedural requirements.

Taken together, these mechanisms reflect a growing judicialization of the energy sector, driven both by regulatory reforms and by the State's strategic interest in regaining control over certain key areas.

What types of legal remedies, such as precautionary measures, remedies, amparo lawsuits are available during and after litigation in Mexico?

During litigation, the parties may request injunctive relief to preserve the state of affairs. Among the most relevant are the provisional suspension, which paralyzes the execution of the act complained of while the amparo trial is resolved, and the precautionary seizure, which secures assets to guarantee compliance with an eventual judgment. A non-innovation order may also be requested to prevent material changes to disputed property.

Ordinary remedies include appeal, revocation and complaint. The appeal allows for the review of final decisions before a higher instance. The complaint is filed against interlocutory decisions that affect due process, and the revocation proceeds before the same judge to correct procedural resolutions.

After litigation, it is possible to file a direct amparo lawsuit against final judgments or arbitration awards. The execution of the judgment is carried out by judicial compulsion, such as the seizure of assets or the withholding of payments. In the case of arbitral awards, the favored party may request their judicial homologation in accordance with the Commercial Code, which makes them enforceable titles. Exceptionally, there is the possibility of challenging final judgments for serious reasons such as falsification of documents or substantial violations of due process.

How independent are the courts in disputes between the State and investors, particularly in strategic sectors such as energy?

Judicial independence in Mexico in the face of investor-state disputes varies significantly depending on the subject matter, the profile of the court, and the political sensitivity of the case. In strategic sectors such as energy, resolutions favorable to private companies coexist - for example, suspensions in the face of reforms of the Electricity Industry Law - with rulings that broadly support the regulatory decisions of the State. This heterogeneity generates uncertainty about the consistency of the judicial criterion, particularly when public companies such as CFE or PEMEX are involved, which tend to actively participate in the processes, including through figures such as adhesive review.

Added to this context is the uncertainty generated by the recent judicial reform of 15 September 2024, which modifies the method of selecting judges, magistrates and ministers, replacing competitive examinations with popular elections. This modification has been interpreted by various sectors as a potential risk to the autonomy of the Judiciary, by introducing elements of politicization in the appointment of judges. As a result, some investors have begun to show a greater preference for alternative dispute resolution (ADR), particularly those of an international nature.



4.7.3 MEDIATION AND CONCILIATION: TOOLS FOR EARLY CONFLICT RESOLUTION

How binding or effective are the agreements reached through mediation or conciliation in Mexico? What advantages do these methods offer in terms of time, cost and preservation of business relationships?

In Mexico, agreements reached through mediation and conciliation are legally binding as long as they are approved by a competent judicial or administrative authority. This homologation gives the agreement the force of *res judicata* and allows its coercive enforcement through measures such as attachments or payment orders. Article 17 of the Constitution and the General Law on Alternative Means of Dispute Resolution establish the legal bases for its validity.

Mediation agreements have a high rate of voluntary compliance, more than 90% in some states such as Jalisco, according to reports from their alternative justice centers. This practical effectiveness is explained by the fact that solutions are built in a consensual way, which favors their acceptance and compliance. However, its use is still limited outside certain areas such as labor or banking, due to the limited institutional dissemination and the resistance of actors accustomed to adversarial litigation.

Among its main advantages are the significant reduction of procedural times, the low cost – especially when they are offered by public bodies such as CONDUSEF or labor conciliation centers – and the preservation of commercial or labor relations.

4.7.4 INTERNATIONAL AND DOMESTIC ARBITRATION

What is the role of arbitration in resolving disputes related to energy and infrastructure contracts in Mexico?

In Mexico, complex commercial disputes are frequently resolved through arbitration, both domestic and international. At the national level, the Mexican Arbitration Center (CAM) is the most consolidated institution, with its own rules since 1995 and a constant history of managing contractual disputes, particularly in sectors such as construction, services and sales. The Mexican Institute of Arbitration (IMA), although it does not administer cases directly, promotes arbitration practice and supports the design of clauses, in addition to facilitating the appointment of arbitrators in ad hoc proceedings.

At the international level, the most widely used institutions are the International Court of Arbitration of the International Chamber of Commerce (ICC) and the International Centre for Dispute Resolution (ICDR), the international division of the AAA. ICC is particularly common in cross-border contracts in energy and infrastructure, while ICDR is employed in disputes arising from trade between Mexico and the United States.

Importantly, official model contracts in the energy sector frequently include arbitration clauses as primary dispute resolution mechanisms. .

For example, Power Purchase Agreements (PPAs) from CFE's long-term auctions have historically incorporated international arbitration administered under LCIA Rules. Similarly, during the Round 1 bidding rounds for hydrocarbons, Exploration and Extraction Contracts (E&E) included experimental arbitration frameworks under UNCITRAL Rules, though with restrictions: Mexican law remained applicable, and disputes regarding contract termination by the State were excluded from arbitration, reserved instead for federal courts.

Contracts with state-owned entities such as CFE and PEMEX also generally contemplate arbitration for commercial disputes. However, administrative rescission or issues tied directly to the exercise of sovereign powers are typically excluded from arbitration and must be resolved through judicial proceedings in Mexico. Notably, despite these exclusions, arbitration can still be used to determine compensation if administrative rescission is found to be unjustified, maintaining a balance between investor protection and state sovereignty.

How reliable is the enforcement of arbitral awards in Mexico under the New York Convention? Is Mexico a safe and efficient venue for international arbitration?

Mexico has been a party to the New York Convention since 1971 and its legal framework, contained in the Commercial Code, recognizes the validity of foreign arbitral awards with a criterion favorable to their enforcement. The judicial recognition of an international award is usually completed within three to six months, unless formally opposed by the condemned party. In these cases, judicial review is limited to grounds expressly provided for in Article V of the Convention, such as failure to notify, violation of due process, or contravention of public order.

Judicial practice in federal courts has been, in general, pro-arbitration. The Supreme Court has held that a substantive review of the award is not appropriate and has limited judicial intervention to the verification of formal requirements. This has allowed even awards issued against state entities – such as CFE or PEMEX – to be enforced without institutional interference, provided that procedural requirements are met.

In practice, most awards are enforced voluntarily, particularly in private commercial disputes. In cases with opposition, the procedure can be extended up to two years if means of defense such as the amparo trial are promoted. However, the proportion of annulment of awards in Mexico is low, reinforcing the perception that the country is a viable venue for international arbitration.

How significant is international commercial arbitration in Mexico's business landscape?

Mexico is a relevant and growing user of international commercial arbitration, actively relying on this mechanism to resolve complex cross-border disputes. According to recent reports, Mexico consistently ranks among the top five countries worldwide for open international arbitration cases before the ICC, reflecting the increasing reliance of Mexican businesses and foreign investors on arbitration to manage disputes in sectors like energy, infrastructure, and trade. (ICC, 2024)

In the past five years, Mexico has regularly appeared in the global top 10 for the number of parties involved in ICC-administered arbitrations, with 111 Mexican parties participating in 2023 alone. This active engagement highlights Mexico's strategic role in international commercial arbitration, not only as a seat for proceedings but also as a frequent user.

Beyond the ICC, Mexico's adoption of a modern legal framework—based on the UNCITRAL Model Law and favorable arbitration legislation—has fostered a pro-arbitration environment. This has encouraged its use in domestic and international contracts, making arbitration a preferred method for resolving disputes in Mexico's dynamic business environment.

Overall, commercial arbitration represents about 61% of arbitration cases in Latin America, and Mexico stands out as one of the most active jurisdictions, particularly in regulated sectors like energy, construction, and cross-border trade. Its robust legal system and participation in multilateral trade and investment treaties reinforce its status as a credible and reliable venue for international arbitration, offering a secure and sophisticated dispute resolution forum for global busines.

4.7.5 INVESTMENT ARBITRATION

What international treaties, such as the USMCA, support investment arbitration in Mexico, and what are the main steps to initiate a procedure?

The procedural relationship between Mexico and foreign investors has been marked by increasing tension in regulated sectors, particularly energy, telecommunications and transportation. Since 2020, Mexico has faced more than 50 potential or active controversies, many brought by U.S. and European investors alleging indirect expropriation, discriminatory treatment, or failure to meet legitimate expectations in the wake of regulatory reforms. The sum of condemnatory awards since the entry into force of NAFTA exceeds 341 million dollars, according to official figures.

In investment arbitrations, the Mexican State is represented by the Legal Consultancy of the Department of Economy and, in complex cases, by specialized law firms. State-owned companies, such as CFE or PEMEX, actively participate, either as an interested party or as a central subject of the dispute, in cases that usually involve long-term contracts with stabilization clauses or rights acquired under previous regimes.

Faced with this scenario, foreign companies have begun to take more sophisticated preventive measures. The structuring of investment through vehicles in jurisdictions with favorable bilateral treaties, such as the Netherlands or Spain, has become a common practice. It is also recommended to conduct regulatory due diligence prior to any market entry, as well as to include clear dispute resolution clauses and contractual stabilization mechanisms in concessions or administrative contracts.

Investment arbitration remains a viable instrument, albeit in an environment of increasing political and legal scrutiny. The perception of regulatory risks, coupled with discussions on judicial reforms, has increased the attractiveness of hybrid formulas that combine arbitral protection and friendly settlement mechanisms, such as international mediation. Mexico continues to be part of the multilateral investment protection system, but the current context calls for careful legal planning by investors.

Treaty / Agreement	ISDS mechanism	Areas covered
USMCA (2020)	ISDS Limited (Chapter 14-D)	U.S. investments in strategic sectors: hydrocarbons, electricity, transportation, telecommunications
FTA (under renegotiation)	Multilateral court system (CETA model)	EU-Mexico investment (under discussion)
CPTPP (2018)	Arbitration under ICSID or UNCITRAL rules	Investments in sectors not excluded by Mexico
ICSID Convention (2018)	Institutional arbitration	Applicable if provided for in a BIT signed by Mexico
Bilateral BITs (31 in force)	ICSID, UNCITRAL or ad hoc arbitration	Foreign investments (e.g. Spain, Germany, Netherlands)

What has been Mexico's experience with investment arbitration (ISDS), and how does it shape its investment environment and policymaking today?

Mexico's engagement with ISDS has been intense and fraught with controversy. As of mid-2024, Mexico has faced 55 known investor-state claims, positioning it as the third most targeted country in Latin America and the fourth globally (ISDS América Latina, 2024). These disputes, totaling over US\$13.6 billion in claims (excluding undisclosed amounts in some ongoing cases), highlight the stakes for Mexico's public finances and regulatory autonomy.

Historically, 14 cases have resulted in awards or settlements favoring investors, while 12 were dismissed, 6 discontinued, and 23 remain active. In financial terms, Mexico has been condemned to pay nearly US\$341 million in 11 of these cases—a figure equivalent to three times the national budget for culture in 2024. Sectors most affected include mining and hydrocarbons (11 cases), water and waste management (7 cases), and manufacturing, transport, and communication (5 each), reflecting the broad vulnerability of Mexico's development priorities.

These ISDS claims typically arise from allegations of indirect expropriation, unfair and inequitable treatment, and violations of “national treatment” or “most-favored-nation” clauses—provisions enshrined in Mexico’s 31 BITs and 11 trade agreements with investment chapters, including the USMCA and CPTPP. While these treaties enable foreign investors to bypass national courts in favor of international arbitration, they also expose Mexico to multimillion-dollar liabilities and create a chilling effect on domestic policymaking. Notably, in 2023 alone, Mexico received 11 new ISDS claims—the highest number globally that year.

Despite this backdrop, Mexico continues to expand its investment treaty network, maintaining ISDS provisions even in modernized agreements such as the EU-Mexico FTA. This approach reflects a tension: on one hand, a drive to attract foreign capital, and on the other, the mounting fiscal and policy costs of arbitration. In practice, the State’s defense is led by the Ministry of Economy’s Legal Consultancy, often assisted by specialized law firms. While the State generally respects arbitral decisions, concerns about transparency and political oversight persist—especially given the increased reliance on military and state-led infrastructure projects.





↑ SEVILLA ↘
↙ RIO TIBER ↗
EJERCITO NA ↗