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Peru's oil & gas investment guide

2018 / 2019

June 2018

PERÚ Ministerio de Relaciones Exteriores

PERÚ Ministerio de Energía y Minas

Perú petro

ProInversión
Private Investment Promotion Agency - Peru

About this oil & gas investment guide

The oil & gas industry in Peru has evolved from an industry in decline to a major contributor to economic growth in Peru. From 1995 to 2014, investment in this sector increased from US$147 million to US$1.19 billion, or an increase of 800%. For years 2018-2019, it is expected that US$2.0 billion will be invested in around 16 oil & gas projects, which represents 11.1% of all the investments to be made in 2018-2019.

Among other key factors in the success of this industry is its enormous potential. Currently, Peru has the potential and reserves to produce more than 150 thousand barrels of oil across the country (including both onshore and offshore blocks).

Synergies created between production from the Camisea Project and other industries (energy, mining, industrial, among others), have also contributed to an increase in this potential.

Moreover, the increasing demand of electricity in Peru during the last twenty years due to the development of mining and industrial projects,

and the growth of its main cities, has also served to better position primary fossil fuels such as oil & gas in the country's energy structure. However, this situation is going to evolve in the coming years.

The 2014-2025 National Energy Plan highlighted the need to diversify the sources of energy production due to trends of investment in clean energy in the global market.

In this context, this oil & gas investment guide is structured to help investors broadly evaluate Peru's oil & gas sector investment conditions and provide them a general updated landscape of the industry. In that sense, we have included various aspects usually taken into consideration by investors from around the world before making critical decisions on the development of new oil & gas operations.

Pursuant to the future scenario in which non-conventional sources of energy will take an important place in the national energy matrix, this year, the guide has included relevant information regarding Gas to Power and other sources of energy (i. e. renewables). In light of this, an overview of the energy sector, investment conditions, and opportunities are also detailed.

Furthermore, this guide offers a wide range of information, from a macroeconomic perspective (overview of Peru's political structure, business environment and favorable investment promotion conditions) to specific key indicators, regulatory requirements, growth potential and also some information regarding topics currently discussed by experts in the field of oil & gas.

Regarding the oil & gas and energy market, we have included a description of terms and applicate fiscal regime, considering major government taxes, royalties and other similar levies, as well as an overview of the customs, labor, environmental, anti-corruption and accounting regulations that should also be taken into account when starting a business and developing activities in Peru connected with these markets.

Why Peru?
What oil & gas investors should know

"The difference between good investment decisions and bad investment decisions is the right information at the right time"

Paulo Pantigoso
Country Managing Partner

Building a better working world

Contact information

This oil & gas guide was the first, and still is the first, handbook of its kind. Since its first edition (2014), the objective of this document has been its use as a guide and tool in the process of evaluating the oil & gas landscape in Peru to ensure that foreign investors have the most recent and accurate information to start and develop their operations in Peru on a long-term basis.

With this guide, EY demonstrates its commitment to contribute to Peru's progress, through our support for business ventures, growth and success. We provide readers with the most recent information on the country's shining economic performance, as well as important technical information on how to establish businesses in Peru. At EY we are committed to contributing towards attracting investment that can increase the prosperity of our economy, and we are sure that the oil & gas industry has the potential to provide such growth.

We invite you to contact us with your questions and we wish you all the best with your oil & gas investment opportunities in Peru.

Beatriz De La Vega
Energy Leader and Editor

EY
Building a better working world

Contact information

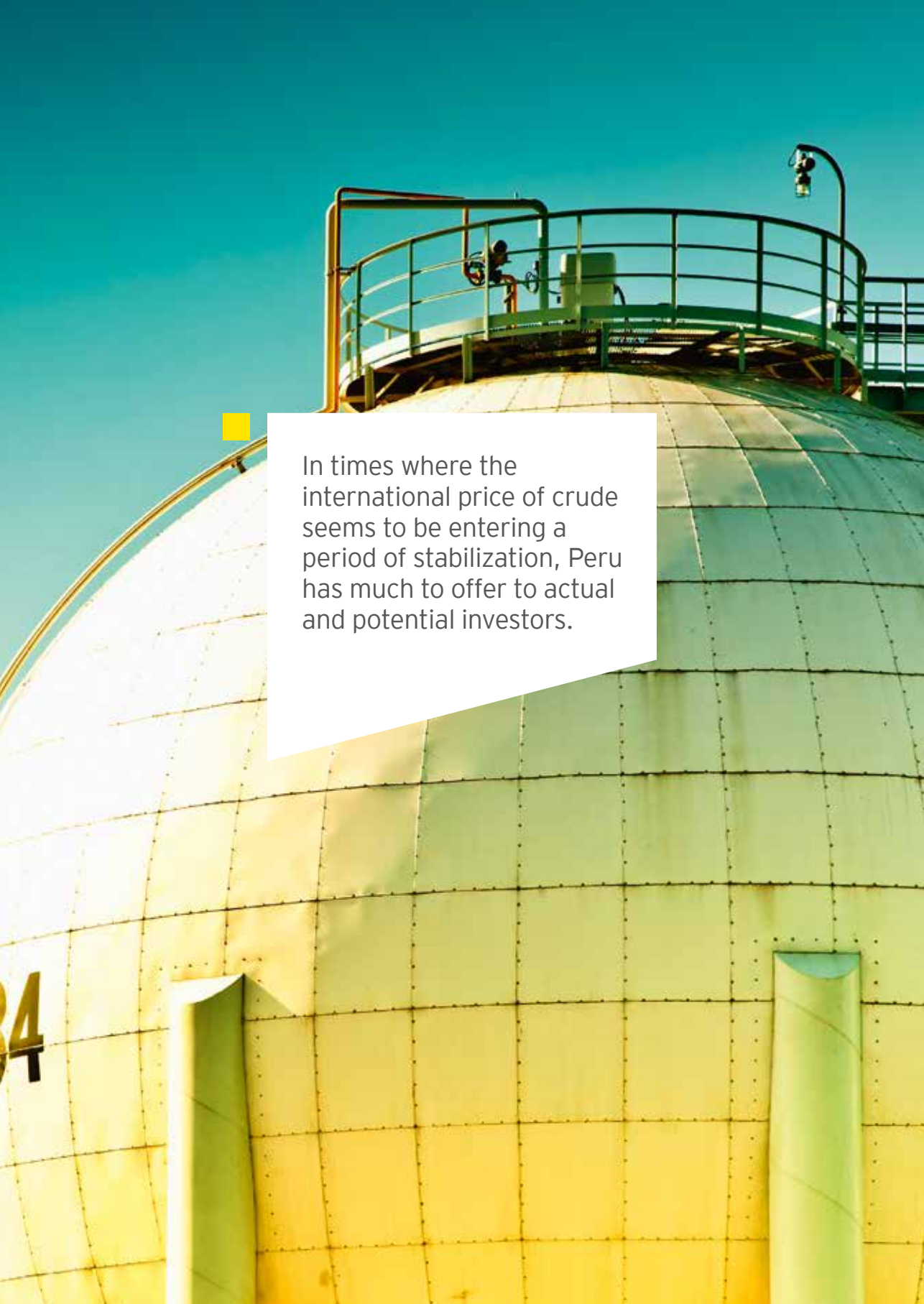
Peru's longstanding tradition as an oil producing country dates back to the end of the 19th century, when the northern region of the country hosted the very first oil well drilling in South America. It should be noted that this region is still producing hydrocarbons. More recently, Camisea, a major project regarding one of the most important natural gas reservoirs in the region, started production in 2004. This project boosted the Peruvian economy in every aspect by providing a reliable source of cheap and eco-friendly energy, diversifying the energy matrix and making of Peru an exporter of liquefied natural gas since 2010.

Peru's economy has been growing at annual rates above other countries in the region, largely supported by the prices of commodities. In times where the international price of crude seems to be entering a period of stabilization, Peru has much to offer to actual and potential investors. For example, not only can investors count on eighteen basins, from which almost fifteen are under-explored, but also on promising Blocks of nearby successful projects, such as Camisea's and others located offshore. This holds golden opportunities for investors as much of the country is still open to vast exploration. Hence, the Government is trying to crystalize such opportunities by promoting regulatory amendments as well as clarity to the environmental permits processe.

Moreover, in order to optimize proven reserves of natural gas, efforts to continue and conclude midstream projects are underway by the Peruvian government. The objective is to spread the use of hydrocarbons throughout all Peruvian territory as a part of what is known as the "massification of natural gas". This macro-project brings opportunities in the development of distribution concessions to residential and industrial users as well as Gas-to-Power projects. Notwithstanding the long-term objectives, renewables and petrochemical projects are also a goal to meet in the future.

Peru is compliant with the EITI standard (Extractive Industries Transparency Initiative) since 2007, consolidating during the last ten years its proven leadership in fiscal transparency in extractive industries in Latin America. Currently, Peru is one of 16 EITI compliant countries showing meaningful progress, out of 51 countries in total. International investors are a crucial part of the growth and success of Peru's oil & gas exploration and production.

Peru welcomes foreign investment with an open and stable regulatory environment.



In times where the international price of crude seems to be entering a period of stabilization, Peru has much to offer to actual and potential investors.

PERÚ Ministerio de Relaciones Exteriores

Néstor Popolizio
Peruvian Minister of Foreign Affairs
Ministry of Foreign Affairs

"Peru's Oil & Gas Investment Guide" is a valuable tool for foreign and national investors. It contains updated and complete information about the current investment climate in the hydrocarbons sector, its open and stable regulatory environment, including fiscal transparency in extractive industries and its positive outlook.

Peru's hydrocarbons sector has great potential for exploration, exploitation, distribution, and commercialization. For instance, although Peru has 18 sedimentary basins with hydrocarbon exploration potential, only three of them are being fully exploited. As such, significant areas with hydrocarbon potential remain unexplored. Oil and gas exploration and production require licenses or service contracts granted by the Government of Peru.

There has been a reduction in investment, both in exploration and exploitation, due to the drop of international prices. According to Peru's

It is important to emphasize that the oil and gas sector has a positive impact on the economy of Peru and its Pacific Alliance partners

Central Bank, hydrocarbons account for 12% of total investments estimated for the 2018-2019 period, which shows its importance for Peru's economy. Estimates of hydrocarbon investment for the years 2018 and 2019 are at approximately US$4 billion, and its growth rate is forecasted at 1,8% for 2018, after two difficult years marked by low oil prices.

In the last decades, Peru has shown to be a strong economy with GDP growth, exchange rate stability, low inflation, rule of law, and an open market. Consequently, Peru has held its place as regional leader in terms of economic growth, despite changing global economic and political conditions.

Likewise, Peruvian credibility within the international community has strengthened thanks to sound macroeconomic management, consistent private investment promotion policies, and continuing efforts to improve public policy and good practice standards, in accordance with the country's aim to become a full OCDE partner in the near future.

It is also important to emphasize the positive impact that the oil and gas sector has had on the economy of Peru and its Pacific Alliance partners. Peru led export growth within the Pacific Alliance in 2017, with a 22,6% increase, reaching a total of US$ 44,502 million, well above the growth rate of our partners Colombia (19%), Chile (9,9%), and Mexico (9,4%). The dynamism of Peru´s exports last year are due mainly to increases in exports from the hydrocarbon, mining, and agro-industrial sectors. Oil and natural gas exports grew 70,4%, with significant increases in diesel (569%) and gasoline (112%) shipments. The Pacific Alliance's exports grew by 11% in 2017, driven by more shipments of oil and derivatives (25%) and mining (21%).

PERÚ Ministerio de Energía y Minas

Eduardo Guevara Dodds
Peruvian Vice Minister of Hydrocarbons
Ministry of Energy and Mines

The Government, through the Ministry of Energy and Mines (MEM), supports and promotes the development of the hydrocarbons sector by promoting investment that is responsible, transparent, law-compliant, eco-friendly, and respectful of individuals.

In order to boost hydrocarbon-related activities, guarantee energetic security and make our country more competitive, the MEM has worked on the Hydrocarbons' Law amendments draft, so that investment in exploration and production can improve. The aforementioned draft proposes new roles for PERUPETRO S.A., implements transparency among Hydrocarbons Contracts, extends terms of current Contracts in relation to incremental development programs, and continues the development of non-explored basins.

Likewise, the MEM worked on the modification of its Organization and Functions Law, by means

The sector will function more efficiently, specific initiatives will be boosted and an industry that generates jobs and welfare to Peruvians will become more dynamic; all the while complying with the highest environmental standards.

of which the Hydrocarbons Viceministry was created. In so doing, the sector will function more efficiently, specific initiatives will be boosted and an industry that generates jobs and welfare to Peruvians will become more dynamic, all the while complying with the highest environmental standards.

On the other hand, it is boosting the "Massification of Natural Gas – Natural Gas Distribution Through Pipelines in the Apurimac, Ayacucho, Huancavelica, Junin, Cusco, Puno, and Ucayali Regions" project. With an investment of approximately US$350 million, this project will allow around 150,000 families from the South-central regions to benefit from natural gas, a cheaper and less polluting fuel.

Moreover, the MEM is promoting the "Integrated Transport System – Southern Peru". With this project, natural gas will be delivered to southern Peru, and it will create infrastructure to secure energy supply at the same time, in benefit of all of the population.

Finally, we must also mention the "Talara Refinery's Modernization" project in charge of Petroperu, with an estimated investment of US$5,000 million. This proposal consists in the construction and extension of units / facilities aimed towards increasing refining capacity from 65 to 95 thousand barrels per day and producing cleaner fuels, reducing imports of such products, and thereby improving the trade balance.

The Government is leading these and other initiatives to promote investment in the hydrocarbons sector, whose importance in the reality of our country must be noted due to our current situation as net oil importers, and because through royalties and Income Tax more social investments can materialize in order to close poverty and inequality gaps.

Seferino Yesquén León
President of Perupetro S.A.

Undoubtedly, the great challenges of Peru in the upstream sector, are two, first to maximize the production of the fields in current production and on the other hand to widen the exploration horizon. We have under explored areas and we need a new hydrocarbon potential opportunities map to optimize its utilization and improve the prospectivity of our oil basins.

Peru has 18 Sedimentary Basins with hydrocarbon exploration potential, distributed in 83 million hectares, 10 in the Coast, 6 in the Jungle and in the Sub Andean thrust and fold belt and 2 located intermountain. Likewise, the Exploration status of the 18 Basins is as follows: 1 mature, 7 semi-explored, 4 immature and 6 considered as frontier areas, not having any exploration well.

We need a deep change in our production and exploration policy, it is urgent to develop projects which guarantee the increase of production and also identify new reserves which are commercially exploited, to guarantee the energy security and the country competitiveness.

We need a deep change in our production and exploration policy, it is urgent to develop projects which guarantee the increase of production and also identify new reserves which are commercially exploited, to guarantee the energy security and the country competitiveness ■

In this spirit, PERUPETRO S.A. has worked in different measures to motivate the present sector players operating in the country and to be more competitive for the investment attraction. We have implemented a new promotion framework which is starting to bear fruits with the entrance of new investors to Peruvian upstream, and we are also working in new incentives to increase production, because one of our great challenges, in which we are working resolutely, is to revert the hydrocarbon general balance in the long term.

In the exploration field, our Contracting Plan for 2017-2018 period, delineated 54 areas available for contracting, which are classified as frontier and semi-explored areas to subscribe TEA (Technical Evaluation Agreements), License Contracts or TEA-Contracts, which we are promoting through the participation in upstream international events and direct approach with oil companies interested in the Peruvian upstream sector, with positive results which we hope will deliver results in the short term.

For 2018, new areas proposed by PERUPETRO S.A. specialists shall be included in the Areas Contracting Plan and international promotion will actively continue.

Regarding production, Perupetro will prioritize the recovery of the production of fields in exploitation phase whose production has been affected by the fall of price in 2014, adopting measures aimed to restore the proven reserves which were reclassified as Resources, due to economic reasons, including investment incentives for drilling of development Wells, reactivation of abandoned Wells, workovers and enhanced recovery projects.

Results achieved to date are positive, Peru is seen as an attractive investment destination due to its stable economy and legal stability. We have great expectations in the future and we are sure we will attain our strategic objective of increasing the economic development of our country.

ProInversión
Private Investment Promotion Agency - Peru

Alberto Ñecco
Executive Director
ProInversion

As one of the world's fastest growing economies for over three decades (6.1 % annually as an average from 1994 - 2017), Peru has become a top investment option for top tier international companies and investment banks. Its solid macroeconomic policy as well as its dynamic economic growth has made it stand out against other emerging markets.

For 2018, the Revised Multiannual Macroeconomic Framework 2017 – 2019 issued by the Ministry of Economy and Finance estimates a growth rate for 2018 of 4.3% for Peru, against a 2.2% growth for Latin America and the Caribbean and a 3.0 % globally. Moreover, its inflation has been estimated by Barclays at 2%, contrasting a global inflation of 2.4%. The recovery of prices in mining such as gold and copper, products on which Peru is one of the biggest exporters in the world, and will also provide an infusion to the Peruvian economy. Both legal and macroeconomic

ProInversion has become a key player in the structuring and promotion of the biggest and most relevant infrastructure projects around the country

conditions play a key role for foreign investments to be attracted to Peru. Both national and foreign investments are to be subject to the same compliance, making no distinction or discrimination among any kind of investors.

Moreover, the Peruvian government has made a particularly aggressive plan to close the national infrastructure gap, estimated at around USD 160 billion until 2025. To achieve this objective, ProInversion has become a key player in the structuring and promotion of the biggest and most relevant infrastructure projects around the country. Acting as the Peruvian investment bank, and with the collaboration of top tier transaction advisors which include bulge bracket tier one investment banks and prestigious consulting companies. ProInversion has developed a pipeline of projects until 2019 that includes sectors such as hydrocarbons, mining, energy, hospitals, water and sanitation, railroads and telecommunication among others.

In the Hydrocarbons sector, one of the biggest projects at ProInversion is the "Massification of the use of natural gas", which consists on the design, finance, build, operation, and maintenance of the systems for the distribution of natural gas through a pipeline network in the regions of Apurímac, Ayacucho, Huancavelica, Junín, Cusco, Puno, and Ucayali. This project has an estimated investment amount of US$350 million (not including VAT) and will have a 32-year concession beginning the execution of the concession agreement on the closing date.

We welcome investors to explore the range of investment possibilities given in the Peruvian hydrocarbons sector and to contribute and participate in the development of energetic resources in a sustainable way

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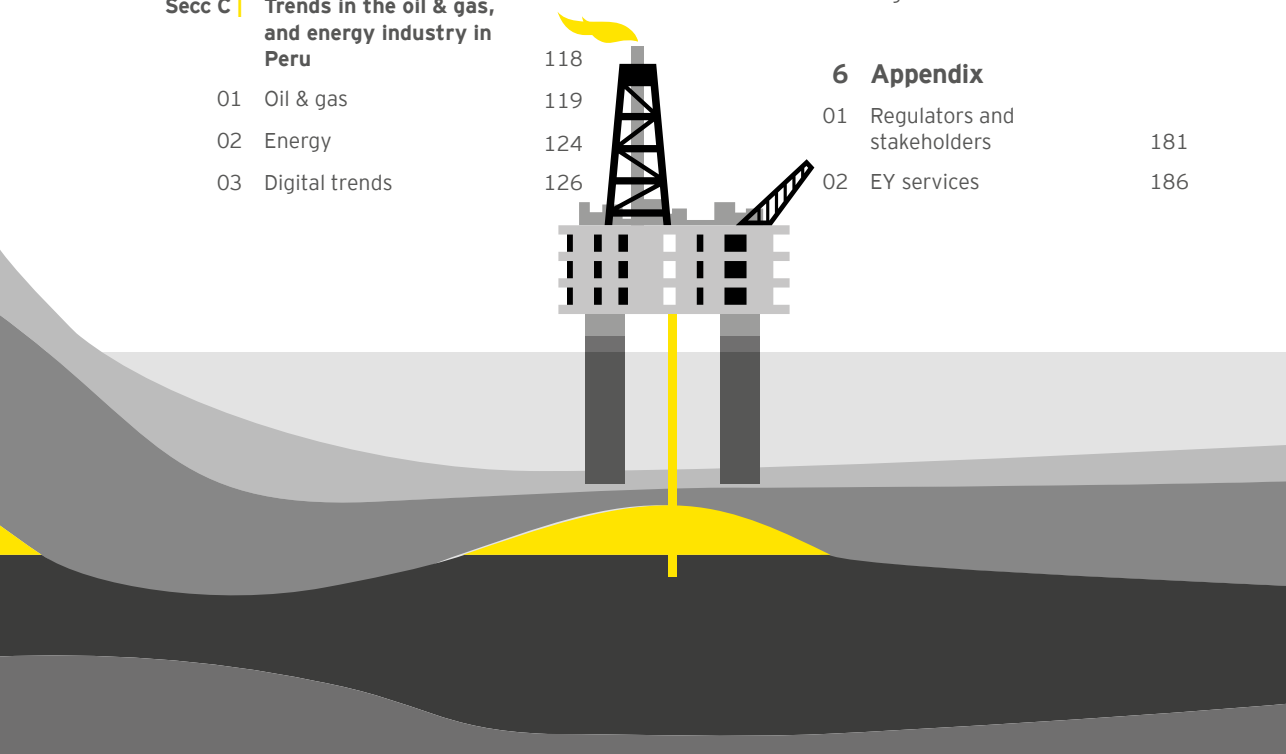


Background information

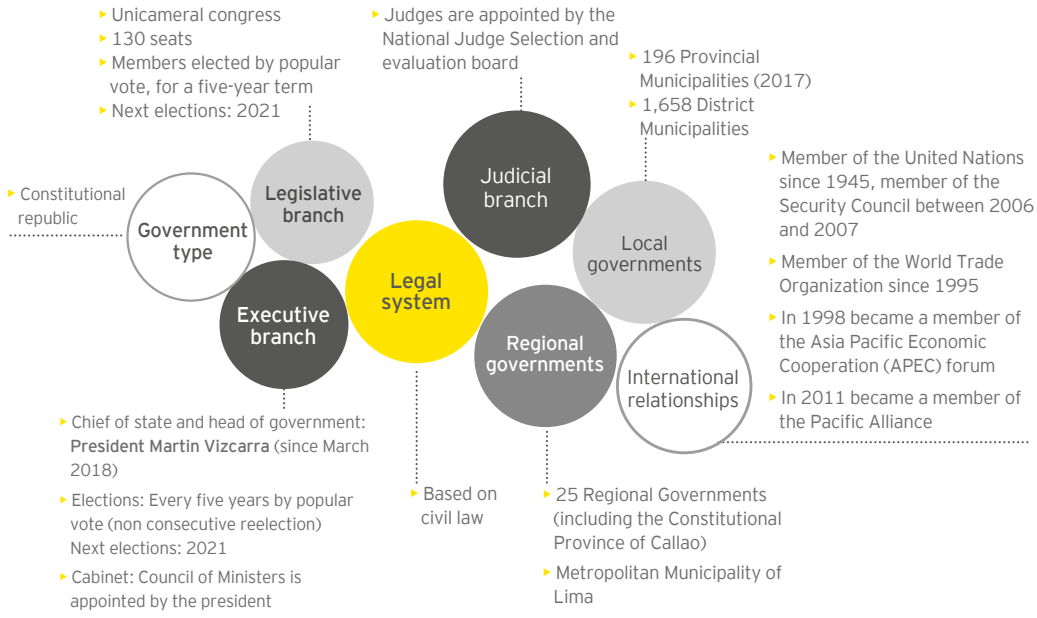
01

Form of government

Peru is a democratic constitutional republic with a multiparty system. Under the Constitution of 1993, the President is the Chief of State and Head of Government. The president is elected every five years and cannot run for re-election immediately. The President appoints the Prime Minister and the members of the Cabinet. There is a unicameral Congress of 130 members elected for a five-year period. The legislative proposals can be submitted by both the executive and legislative branch, and will become law once they are approved by the Congress and promulgated by the President. The judicial and electoral bodies are independent.

The Peruvian Government is elected directly through a mandatory vote, applicable to all citizens between the age of 18 and 70. In the current period (2018 - 2021) Martin Vizcarra was designated as President. Peru has some of the best macroeconomic indicators of the Americas and expects to grow in terms of the Gross Domestic Product (GDP), at a rate well above the average rate of the region.

Country overview



Sources: Peruvian Constitution / CIA - The World Factbook / Ministry of Foreign Affairs / United Nations

02
Geography

Peru, located on the west central coast of South America, is bordered by the Pacific Ocean to the west, Chile to the south, Bolivia and Brazil to the east, and Colombia and Ecuador to the north. With a total land area of 1,285,215.60 km^2, Peru is the third largest country in South America after Brazil and Argentina. It may be divided geographically in three regions:

- The Coast (Costa), which is a narrow desert strip 3,080 km long that accounts for only 11.7% of Peru's territory even though it contains approximately 19 million inhabitants. Lima, the political and economic capital of the country, is located in this region.
- The Highlands (Sierra), which consists of the Andean Mountain Range, covers 27.9% of Peru's territory and contains almost 10 million inhabitants.
- The Amazon Jungle (Selva) is the largest region occupying 60.4% of Peru's territory, in which 3 million inhabitants reside. This region is rich in petroleum and forestry resources.

Peru's geographic information

Population
32.2 million
Urban 76.7%
Rural 23.3%

Area
1,285,215.60 km^2

Religion
Freedom of religion mostly Roman Catholic

Principal languages
Spanish / Quechua / Aymara

Currency*
Sol (S/)
S/1 = US$0.310
US$1 = S/3.238

Climate
Varies from tropical in the Amazon region to dry on the Coast to temperate to very cold in the Highlands

Natural Resources
Gold, copper, silver, zinc, lead, hydrocarbons, fish, phosphates, and agricultural products

Timezone
GMT-5 (five hours behind Greenwich Mean Time). There is no daylight savings time, and there is only one time zone throughout the entire country.

*Exchange rate as of December 31,2017
Sources: BCRP / INEI / SBS

03

People

The estimated population of Peru for the year 2018 is 32.2 million, of which 10.3 million (approximately 32.0%) reside in Lima, the capital of the country. The labor force is about 23.4 million (2016).

The predominant religion is Roman Catholicism and the main official languages are Spanish and Quechua. Aymara is also spoken in some parts of the southern Highlands region of the country. With respect to the literacy rate, 94.1% of the population aged 15 and over can read and write.

People overview

Population	32.2 million people 76.6% resides in urban areas
Age structure	0 - 14 years 27.1% (2017) 15 - 64 years 66.0% (2017) 65 years and over 6.9% (2017)
Annual growth rate	1.1% (2015 - 2018)
Birth rate	18.0 births/1,000 population (2017)
Death rate	5.7 deaths/1,000 population (2017)
Sex ratio	At birth 1.3 male/female
Life expectancy at birth	74.9 years (2017)

Sources: INEI

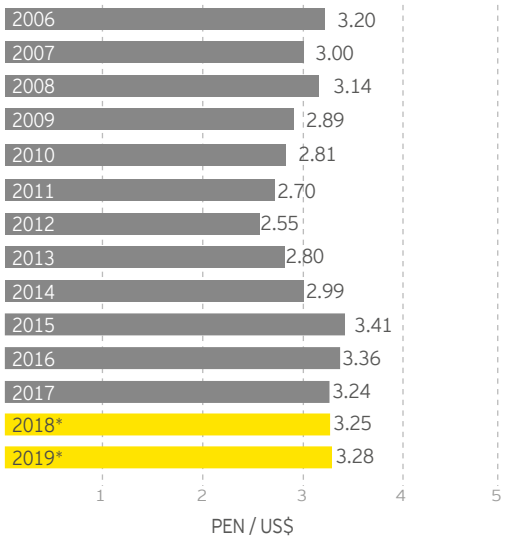
04

Currency

The Peruvian currency is the Sol (former "Nuevo Sol") (S/ or PEN). Peru has a free-floating managed exchange rate regime. Banks are currently (April 04, 2018) buying US dollars at S/3.224: US$1.00 and selling at US$1.00: S/3.225. Parallel market rates are slightly different.

There are no restrictions or limitations on holding bank accounts in foreign currency or to remit funds abroad.

Exchange rate



*Estimated as of March 2018
Sources: BCRP

05

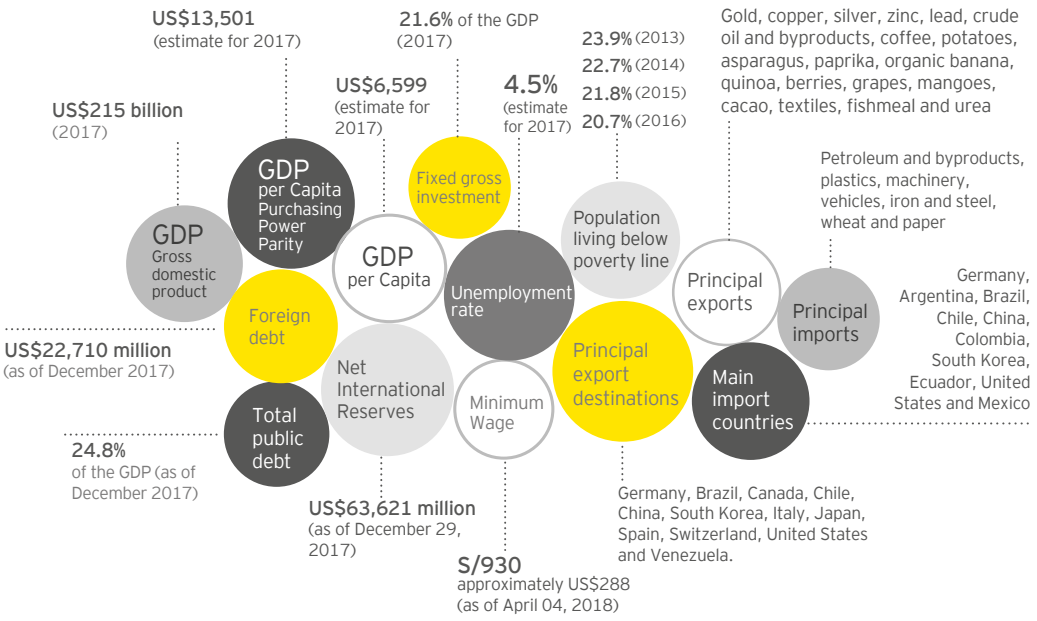
Economic overview

With an estimated population of 32.2 million for 2018, and rich deposits of copper, gold, silver, lead, zinc, natural gas, petroleum and urea, Peru is a very diverse country due to the climatic, natural and cultural variation of its regions.

Peru's economy reflects its varied geography, an arid coastal region, the Andes further inland, and tropical lands bordering Colombia and Brazil. Abundant petroleum resources are found mainly in the Amazon Jungle area. In recent years, Peru has achieved significant advances in social and development indicators as well as in macroeconomic performance, with very dynamic GDP growth rates, reduction of external debt, a stable exchange rate, and low inflation which in 2017 was 1.4%, inside the Central Bank's annual target range of 1% to 3%.

The country has had continuous economic and political stability since the early 1990's. The Peruvian economy has grown 131.7% between 2000 and 2017. This growth was largely driven by prudent macroeconomic policies, investor- friendly market policies and the government's aggressive trade liberalization strategies.

Peru's economic overview



Sources: BCRP / Ministry of Economy and Finance (MEF) / Apoyo consultoría / International Labor Organization (ILO) / INEI / International Monetary Fund (IMF)

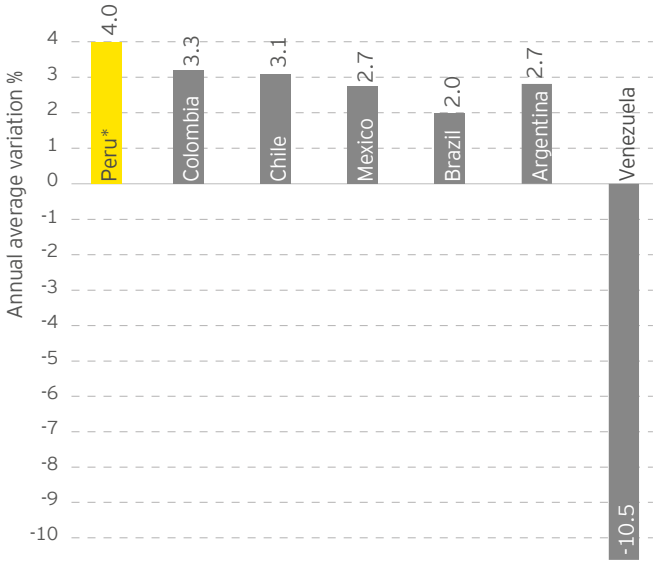
Following a sound 4.0% growth in 2016, the Peruvian economy suffered strong headwinds and its expansion rate slowed down to 2.5% in 2017.

Despite the mentioned slowdown, Peru's economic growth will speed up and continue to be one of the strongest among its peers, as the central bank expects growth of around 4.0% in 2018. It is expected that greater fiscal stimulus for the reconstruction plan and unlocking of the main infrastructure projects will support Peru's economic growth over the next few years. Peru's rapid expansion has helped to reduce the national poverty rate by almost 24 percentage points in the last 10 years, to 20.7% of its total population in 2016.

The country's economic growth has much to do with the monetary and fiscal policies applied over the past two decades, reducing the debt level (from 29.9% of the GDP in 2007 to 24.8% in 2017) and ensuring a prudent fiscal government: overall balance equivalent to -2.1% of GDP in 2015, -2.6% and -3.2% for 2016 and 2017, respectively. All of this has gone hand-in-hand with the liberalization of the goods

Peru is one of the fastest growing economies in the region. Since 2000, it achieved an impressive accumulated growth rate of 131.7% GDP.

Economic Growth Rates Latin America projections: 2018-2019 (Annual average variation %)



*As of March 2018.
Sources: International Monetary Fund (IMF) / For Peru, BCRP

and labor markets, opening up trade through multiple recent international trade agreements, direct foreign investment, and the maximization of the revenues resulting from its rich natural resources. Peru is also reaping the benefits of the increasing size of its market and domestic consumption, and the development of its financial sector, which can be seen, for example, in the growth of private consumption by 2.5% in 2017 (estimated at 3.2% for 2018). Likewise, as of December 29, 2017, net international reserves stood at approximately 32% of the estimated GDP as of the same date.

The Peruvian economy for 2018 is expected to be the fastest growing in South America. This is driven principally by public investment (14.2% for 2018), private consumption (3.2% for 2018) and improved employment indicators. At the same time, the growth of fixed private investment in 2018 is expected to be situated at 5.5%.

Peru has signed a number of Free Trade Agreements (FTAs). These FTAs have been entered into with the United States, China, Thailand, the European Union, South Korea, Canada, Costa Rica, Chile, Honduras, Mexico, Venezuela, Panama, Singapore, Cuba, Japan and EFTA States (European Free of the Trade Association) which includes Iceland, Kingdom of Norway, Swiss Confederation and the Principality of Liechtenstein. It also has 31 (see page 42) Bilateral Reciprocal Investment Promotion and Protection Agreements (BRIPPAs). Also, Peru maintains trade negotiations corresponding to the Trans Pacific Partnership Agreement (which includes Australia, Canada, Chile, Japan, New Zealand, and Singapore among others), and with El Salvador and Turkey.

The Free Trade Agreement (FTA) with the United States entered into force on February 1, 2009, opening the way to greater trade and investment between both countries. Likewise, the Free Trade Agreement (FTA) with China and Japan became effective in 2010 and 2012, respectively. Additionally, Peru entered into the Framework Agreement for the Pacific Alliance in April 2011, a trading bloc that it forms part of together with Chile, Colombia, and Mexico, aimed at encouraging regional integration and the greater growth, development, and competitiveness of their

GDP and GDP per Capita (Measured in Purchasing Power Parity-PPP) **of the Principal Economies of Latin America** (2017 and 2022)

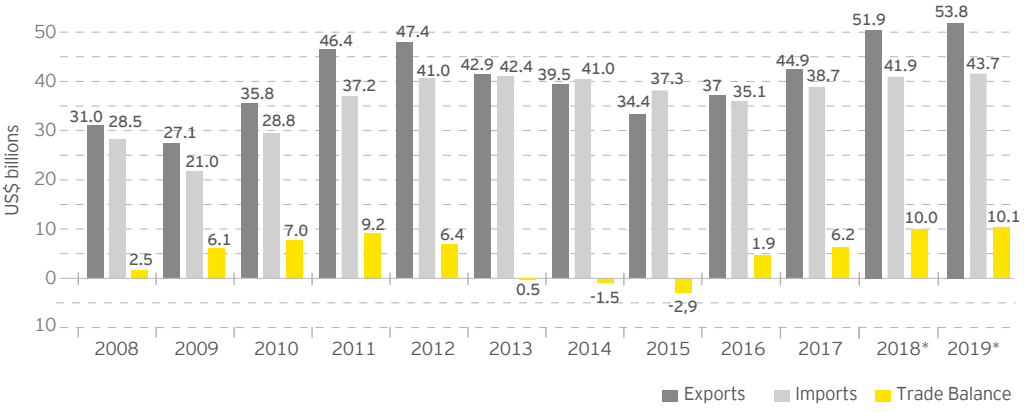
	2017		2022
Country	GDP in US$Billions (PPP)	GDP per Capita in US$(PPP)	GDP per Capita in US$(PPP)
Brazil	3,216	15,485	18,298
Argentina	913	20,707	24,932
Colombia	720	14,609	18,227
Venezuela	404	12,857	12,210
Peru	430	13,501	16,993
Chile	456	24,797	30,079
Mexico	2,406	19,841	23,431

Source: International Monetary Fund (IMF), October 2017

economies, as well as achieving the free circulation of goods, services, capital, and people.

Peru's traditional main exports are gold, copper, petroleum oil, natural gas, zinc, lead, iron, fishmeal, quinoa, grapes, asparagus, mangoes, cacao, berries and coffee, and its principal trading partners are Argentina, Brazil, Canada, Chile, China, Ecuador, Germany, Italy, Japan, Mexico, South Korea, Spain, Switzerland, and the United States.

Trade balance



*Estimated. Sources: BCRP

Peru's main economic activities

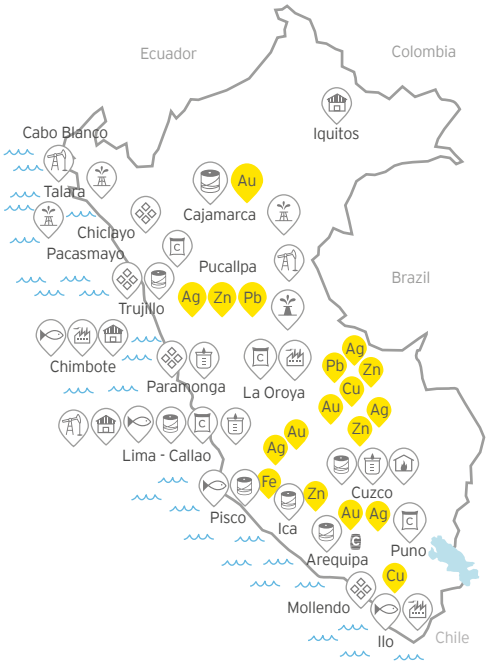
Peru's main economic activities include agriculture, fishery, mining, the exploitation of petroleum and gas, and the manufacturing of goods, most notably textiles. The sharply contrasting geographical areas of Peru make it a particularly diverse country, with a wide variety of ecosystems, and thus, flora and fauna.

In 2017, Peru ranked as the world's top producer of fishmeal (US$1.458 billion exported); and it is the third-largest exporter of avocado (US$581 million were exported in 2017). It is also an important producer and exporter of fresh asparagus (US$409 million in 2017), fresh grapes (US$652 million in 2017) and natural calcium phosphates (US$207 million in 2017).

In mining, according to the U.S. geological survey, Peru ranked second in the world in 2017 in the production of silver, copper and zinc, fourth in lead, and molybdenum, fifth in tin, and sixth in gold besides having large deposits of iron ore, phosphates, manganese, petroleum, and gas. The principal destinations for Peruvian copper are China and Japan, gold to Switzerland, United States and Canada, zinc to South Korea and silver to the United States.

One of the economic activities that is recently being exploited and which shows great potential is that of forestry resources (cedar, oak, and mahogany, mainly).

Main economic activities by region



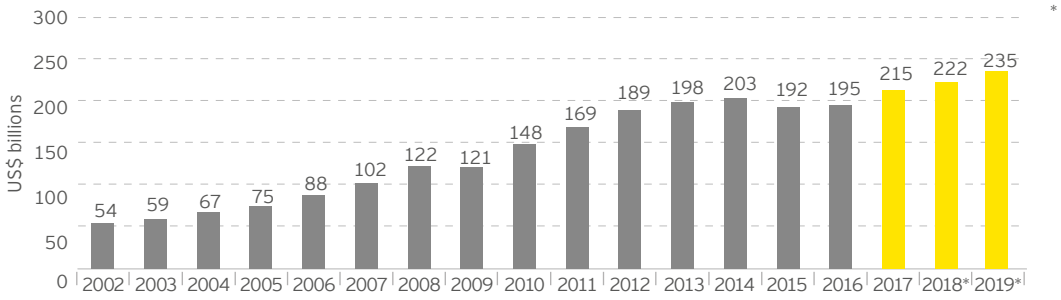
Fishery		Textile industry	
Petroleum		Cement plant	
Oil refinery		Chemical plant	
Sugar refinery		Metal industry	
Fishmeal plant		Smeldering	
Natural gas		Metallurgical industry	
Au	Gold	Zn	Zinc
Ag	Silver	Pb	Lead
Cu	Copper	Fe	Iron

Source: University of Texas - Perry Castaneda Library Map Collection

Gross Domestic Product (GDP) / Trade Balance

The Gross Domestic Product (GDP) in 2017 reached US$215 billion. At the end of 2017, total FOB exports came to US$44.9 billion, while imports totaled US$38.7billion. The principal exports came from the mining, hydrocarbons, and agricultural and livestock industries.

Peru's GDP



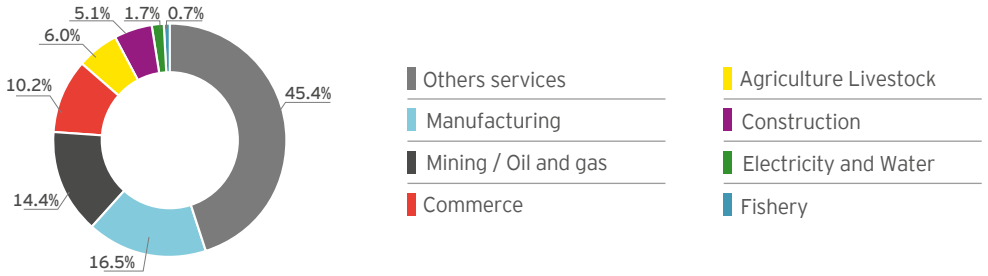
*Estimated
Sources: International Monetary Fund (IMF) /BCRP

Gross Domestic Product (GDP) by Industry - Annual % Change

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*	2019*
Agriculture and Livestock	1.3	4.3	4.1	5.9	2.7	1.6	3.5	2.7	2.6	4.0	4.0
Fisheries	-3.4	-19.6	52.9	-32.2	24.8	-27.9	15.9	-10.1	4.7	23.5	0.5
Mining	-2.1	-2.7	-2.1	2.5	4.3	-2.2	15.7	21.2	4.2	2.4	3.0
Hydrocarbons	17.1	15.0	5.1	1.0	7.2	4.0	-11.5	-5.1	-2.4	-0.8	7.6
Manufacturing	-6.7	10.8	8.6	1.5	5.0	-3.6	-1.5	-1.4	-0.3	4.8	3.5
Electricity and Water	1.1	8.1	7.6	5.8	5.4	4.9	5.9	7.3	1.1	2.5	3.5
Construction	6.8	17.8	3.6	15.8	9.0	1.9	-5.8	-3.1	2.2	8.5	8.0
Commerce	-0.5	12.5	8.9	7.2	5.9	4.4	3.9	1.8	1.0	3.5	3.8
Other Services	4.6	7.7	7.3	7.4	6.5	6.0	4.2	4.0	3.4	3.7	4.0
GDP	1.05	8.5	6.5	6.0	5.8	2.4	3.3	4.0	2.5	4.0	4.0

*Estimated as of March, 2018
Sources: BCRP/INEI

Peru's GDP by productive sector



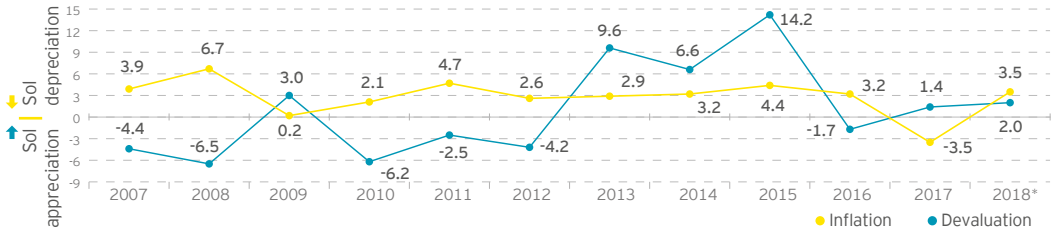
Sources: BCRP

GDP variations

*Estimated Source: BCRP

Devaluation and inflation

Exchange rate appreciation: the market value of the Sol rose and fell 3.5% against the US Dollar in 2017. The annual inflation rate was 1.4% as of December, 2017. Peru's central bank aims to keep the annual inflation rate within a target range of 1% to 3%.



* Exchange rate estimated at 3.35 according to the Multiannual Macroeconomic framework (MMM) of August 2017
Sources: BCRP / Ministry of Economy and Finance

06

Infrastructure and services

It is expected that Peru will only realize its full economic potential after reducing its infrastructure bottlenecks. Estimates vary but, according to ProInversion, the 2017 - 2018 portfolio of this entity is comprised of 32 APP (Public-Private Partnerships) projects and Asset projects for an amount of more than US$14.4 billion. Of this total, 16 APPs are scheduled to be awarded in the current year, in the amount of US$4.1 billion; 15 projects for US$3,750 million in 2018; while Line 3 of the Metro of Lima (US$6.6 billion) could be awarded on the lasts months of 2018 or early 2019. In recent years, Peru has begun to take the necessary measures to improve its underprivileged infrastructure (transport facilities, electricity, water and communications) in order to promote new investments which will contribute to the development of the productive sectors of the country. Recently the Government has approved a new regulation for Public-Private Partnership projects with the intention to reduce dramatically the timeline of the whole process.

The oil & gas is one of the sectors affected by this constraint since oil & gas companies need to have access to transportation facilities to deliver their products to national and international markets. Well-developed infrastructure reduces the effect of distance between regions, with the result of truly integrating the national market and connecting it at low cost to markets of other countries and regions.

The Government has been evaluating different alternatives to reduce such problems. One of those alternatives is the construction of pipelines, i.e. to transport natural gas extracted from Camisea's gas fields to the north and south region of Peru (called Southern and Northern Peruvian Gas Pipeline projects). Another important alternative under analysis is the modernization of the Northern Peruvian Pipeline, constructed to transport oil, 40 years ago, from the northeastern region of Peru to the coast.

Moreover, this need for infrastructure also reaches the energy sector. The generation and transmission of electricity makes necessary big investments in order to provide energy in an efficient way considering the geographical difficulties of the Peruvian territory, and the expansion in the use of renewable energy to produce clean energy will demand even more infrastructure investments.

Public-Private Partnerships

Peruvian laws have incorporated Public-Private Partnerships (PPPs), a modality of private investment participation.

PPPs are executed under the form of concession, operation, management, joint venture and any other modality admitted by Peruvian laws. The main characteristic of PPPs is the distribution of risks between the Peruvian Government and the privates.

PPPs provide the opportunity to invest by means of the use of expertise, equipment, technology, among other tools in order to create, develop, improve, operate or maintain public infrastructure or provide public services. This modality of investment can be requested as of a private initiative or through a public tender.

The Promotion Agency of Private Investment of Peru (ProInversion) has estimated that the PPP initiatives will have a direct and substancial impact on investments during 2018-2019. In the case of the energy sector, investments up to US$ 802 million during 2018 have been estimated, the same ones that will reinforce the supply of electric power in the country. In this regard, it is worth mentioning the following projects:

220kV Tintaya-Azángaro transmission line

This recently awarded project (november 2017) consists of the design, financing, construction, operation and maintenance of a 220kV energy transmission line. By means of this project, the Tintaya 220kV Substation (Cusco) and the Azángaro 220kV Substation (Puno) will be now connected by a 220kV transmission line instead of its current 138kV one.

The project will bring important benefits for the south part of the country, such as greater security in the supply of energy to guarantee continuous electricity service to households, greater capacity for electric transmission to meet the growth of future demand and the promotion of economic activities.

500kV Mantaro-Marcona-Socabaya-Montalvo and associated substations transmission line

This project is one of the biggest projects ever awarded for the design, finance, construction, operation and maintenance of a 900 Km. long 500kV transmission line. The investment made was about US$450 million. This line now transfers the energy produced in central Peru to its southern locations in order to cover the energy demanded by the increasing mining activities developed in such areas.

This transmission line was inaugurated on November of 2017.

Works for taxes

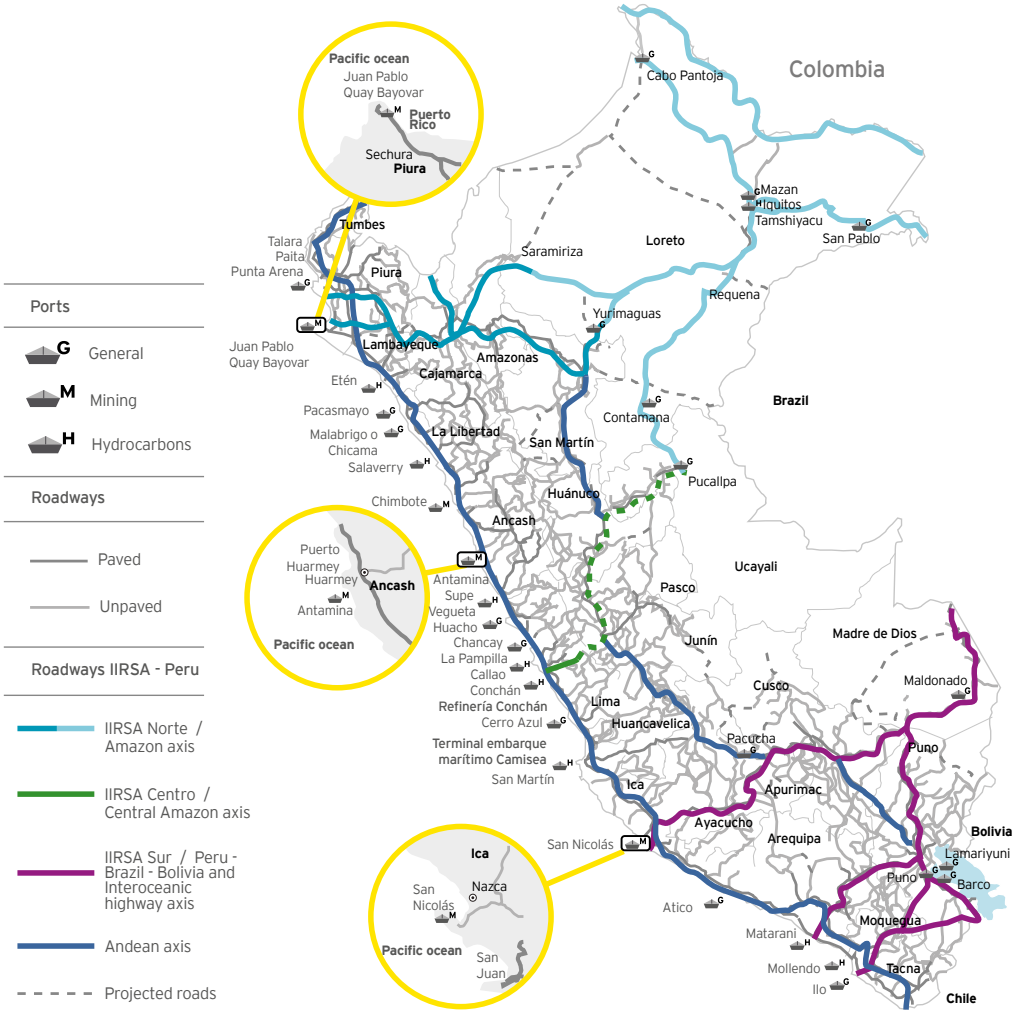
Works for taxes is a regime that consists of the joint participation between a private company and a public entity to develop and execute a public investment project. Upon the signature of an agreement, the private company commits to carry out a project in exchange for the recognition of the investment and disbursements made as a credit against income tax, through the issuance of a Regional and Local public Investment Certificate.

This regime has become an efficient tool of Corporate Social Responsibility, allowing an efficient and direct application of public funds on behalf of regional governments, local governments, public universities and national government's entities in sectors such education, health, security, tourism, agriculture and irrigation, culture, sanitation, sports, and the environment, among others.

It is important to highlight that on December of 2016, by means of Legislative Decree No. 1202, Petroperu (National Oil Company) was authorized to use Works for Taxes mechanism. The reason for such a decision relies on the difficulties Petroperu faced when it was developing its activities in areas in which social conflicts arise easily. In this sense, Petroperu can now develop corporate responsibility activities by this mechanism in the areas of influence of its projects.

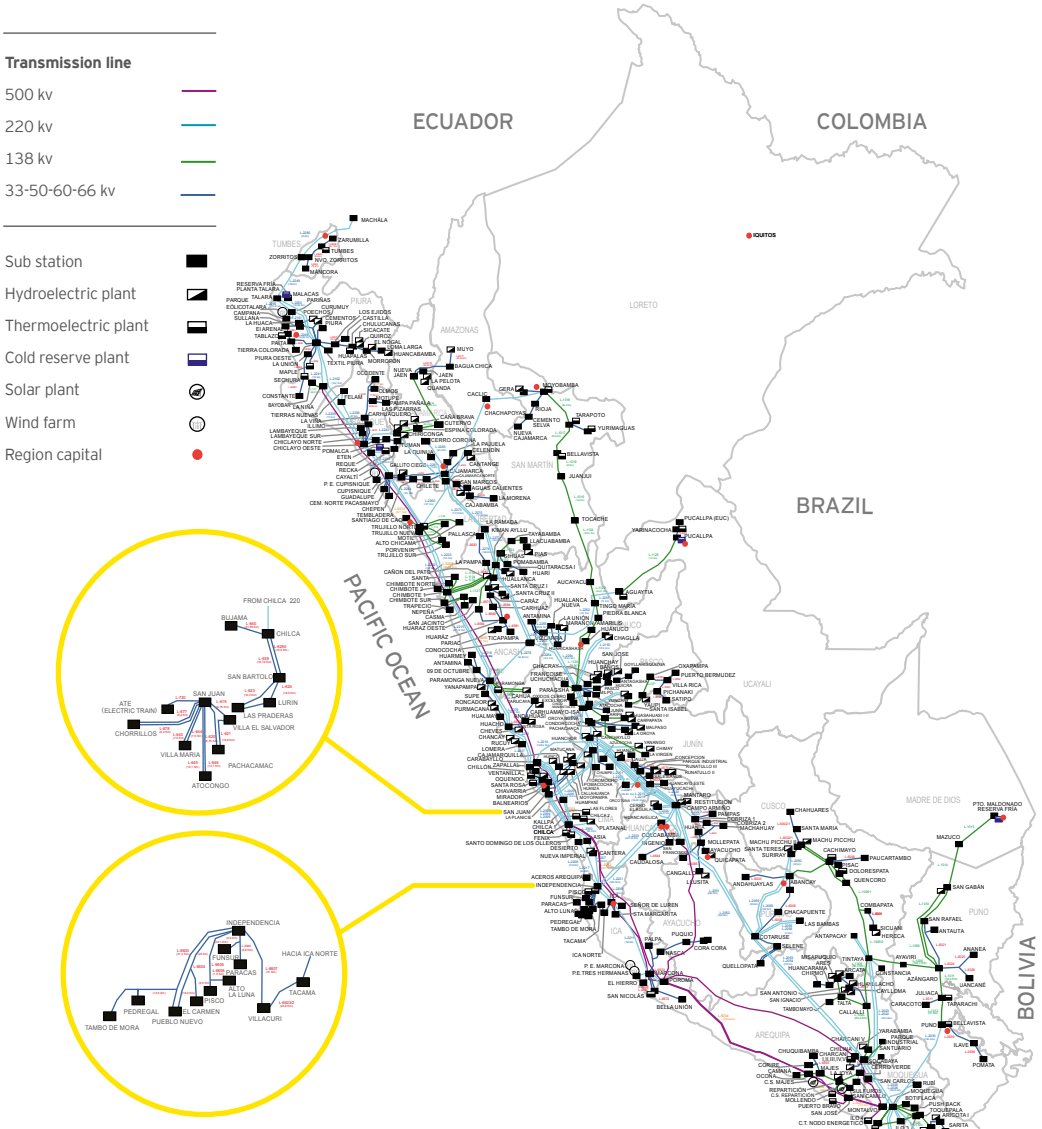
Note that also in the case of the energy sector, the investments can cover the remediation, construction and equipment of electric systems and rural electrification projects.

Infrastructure access map



Source: Ministry of Transport and Communications

Electricity infrastructure map



Source: COES

07

Peru's investment-grade rating

Peru has maintained its investment-grade credit rating since Moody's Investors Services raised it to that level in December, 2009 matching moves made by Standard & Poor's and Fitch Ratings the previous year. Sound economic prospects, with GDP growth rates estimated at 4% over the medium term, are a key supporting factor for the investment-grade rating. Peru's robust growth prospects are supported by important investments levels. The upgrade is also supported by the significant decline in Peru's fiscal and external vulnerabilities within a context of high and diversifying sources of growth with low inflation and strengthening macroeconomic fundamentals. It is expected that these trends will remain in place over the medium term despite an increasingly riskier international environment. It is well known that countries with investment grade ratings gain a higher level of confidence that generates more foreign and domestic investment. The risk premium demanded by multinationals and foreign investors is slashed after the

Peru's investment grade rating
(long term debt in foreign currency)

Country	S&P	Fitch	Moody's
Chile	A+	A	Aa3
Peru	BBB+	BBB+	A3
Mexico	BBB+	BBB+	A3
Colombia	BBB-	BBB	Baa2
Uruguay	BBB	BBB-	Baa2
Paraguay	BB	BB	Ba1
Bolivia	BB	BB-	Ba3
Brazil	BB-	BB-	Ba2
Argentina	B+	B	B2
Ecuador	B-	B	B3
Venezuela	SD	RD	Caa3

As of January 2018
Source: Standard & Poor's/Fitch Ratings/Moody's

Investment grade

S&P / Fitch	Moody's	Feature
AAA	Aaa	Risk Free
AA+, AA, AA-	Aa1, Aa2, Aa3	High Grade
A, A, A-	A1, A2, A3	High Repayment Capacity
BBB+, BBB, BBB-	Baa1, Baa2, Baa3	Moderate Repayment Capacity
BB+, BB, BB-	Ba1, Ba2, Ba3	Some Repayment Capacity
B+, B, B-	B1, B2, B3	Highly Uncertain Repayment Capacity
CCC+, CCC, CCC-, CC	Caa1, Caa2, Caa3	Extremely Vulnerable to Default
SD/D	Ca	Default

As of March 2018
Source: Standard & Poor's/Fitch Ratings/Moody's

upgrade. At the same time, the investment horizon is elongated. The same occurs with domestic investment. Local investors gain more self-confidence, thus allowing themselves to consider opportunities with lower rates of return. The impact is immediate, as consumers gain access to credit with more favorable terms.

The upgrade to investment grade has brought Peru a lot of positive attention worldwide. More importantly, it has had a positive impact on the local economy and should help to boost the stock market and the appreciation of the Peruvian currency, the sol, in the short term. For this reason, nowadays, many multinational corporations look at the country more seriously, as higher private investment is flowing into the country. This should contribute to alleviating a still complex social situation in Peru, by achieving improvements in employment and decreases in poverty.

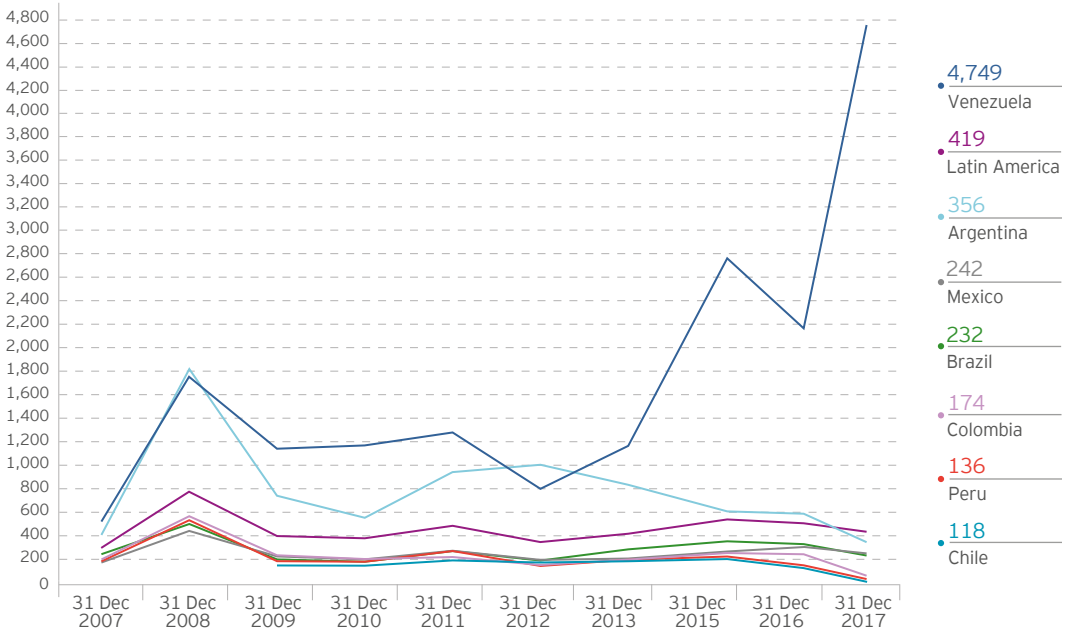
Country risk

As of December 2017, Peru had a country risk of 136 base points, ranking as the second-lowest in Latin America. This score is nearly one-third of the regional average (419 points).

Peru has achieved the position of the third most globalized country in Latin America, according to the Globalization Index established by EY. Five elements are considered within this index: openness to foreiqn trade, capital flows, exchange of technology and ideas, international movement of workers, and cultural integration. Additionally, in early 2018 Bloomberg Markets positioned Peru as the ninth emerging market with the greatest international projection, based on the country's advantages, such as low share prices and their possible increase in the future.

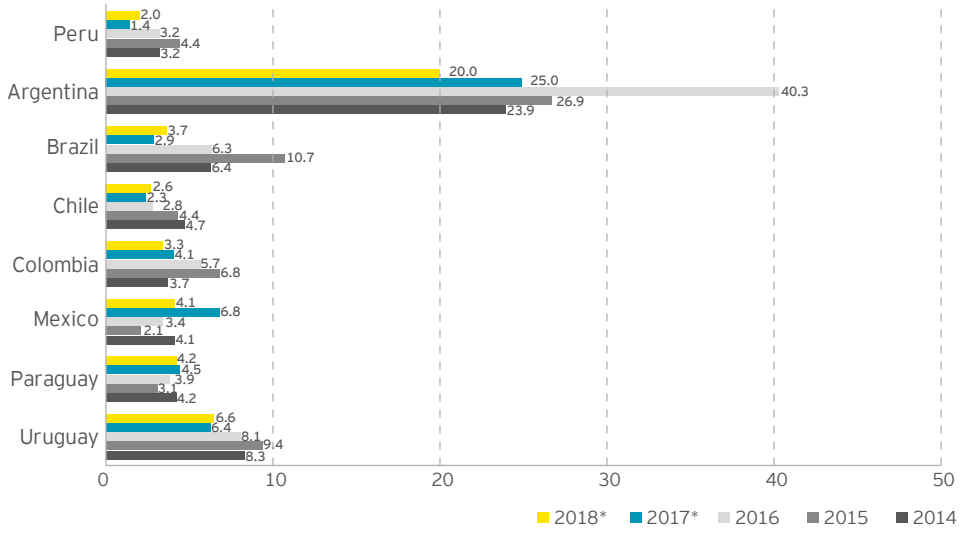
As may be seen in the following charts, Peru's level of inflation is one of the lowest in Latin America, with a rate of 1.4% in 2017, and an estimated range of 2.0% for 2018. In addition, over the past decade (2007-2016), the Peruvian economy had the lowest average annual inflation rate in Latin America, at 3.4%, below that of Ecuador (4.0%), Colombia (4.3%) and Brazil (6.2%).

Country risk indicator (2006-2017)



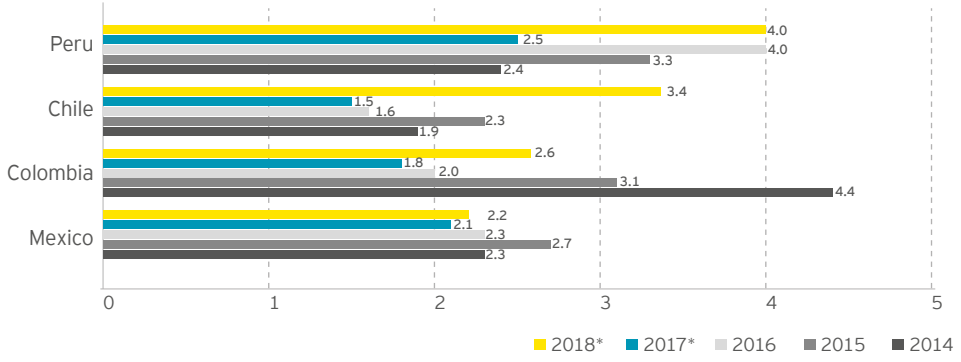
Source: BCRP

Estimated inflation rates in Latin America



*Estimated
Sources: Latin America Concensus Forecast (March 2018)/BCRP

Estimated Gross Domestic Product (GDP) growth percentage rates (Pacific Alliance and Latin America)



*Estimated
Sources: Latin America Concensus Forecast (March 2018)/BCRP

08

Investment promotion conditions

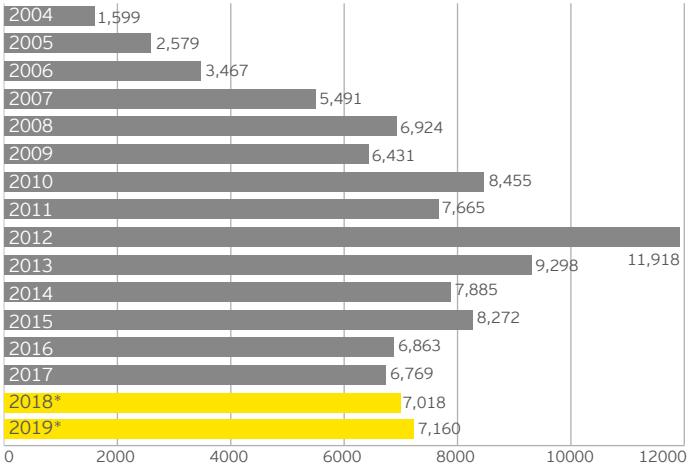
Foreign investment legislation and trends in Peru

The Peruvian government is committed to the pursuit of an investor-friendly policy climate. It actively seeks to attract both foreign and domestic investment in all sectors of the economy. It has therefore taken the necessary steps to establish a consistent investment policy, which eliminates all obstacles for foreign investors; with the result that now Peru is considered to have one of the most open investment regimes in the world.

In an attempt to reduce the political risk perception of the country, Peru has adopted a legal framework for investments which offers automatic investment authorization and establishes the necessary economic stability rules to protect private investors from arbitrary changes in the legal terms and conditions of their ventures and reduces government interference with economic activities.

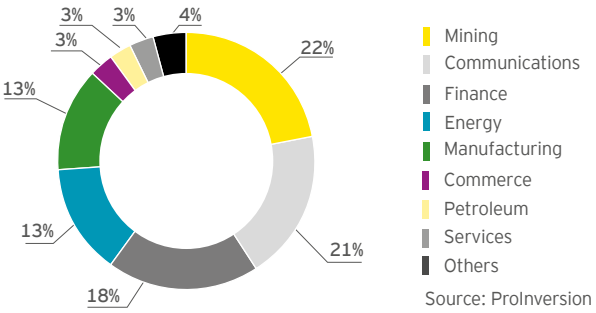
Peru's Central Bank reported that the stock of foreign direct investment (FDI) inflow is expected to reach US$7 billion in 2018. FDI is concentrated in mining, communications, finance, manufacturing and energy.

Foreign direct investment inflows
(US$ billions)



*Estimated
Source: BCRP

Foreign direct investment stock by sector (2017)



Source: ProInversion

The Peruvian government guarantees foreign investors legal stability on income tax regulations and dividend distributions. Foreign investors entitled to obtain tax and legal stability are those willing to invest in Peru, in a two-year term, at least US$10 million in the hydrocarbon and/or mining sectors; US$5 million in any other economic activity or to acquire more than 50% of the shares of a privatized state-owned company.

Peruvian laws, regulations, and practices do not discriminate between national and foreign companies. Accordingly, national treatment is offered to foreign investors. There are no restrictions on repatriation of earnings, international transfers of capital, or currency exchange practices. The remittance of dividends, interests and royalties has no restrictions either.

Foreign currency may be used to acquire goods abroad or cover financial obligations as long as the operator is in compliance with the relevant Peruvian tax legislation.

Elimination of bureaucratic barriers

Due to the last tax reform, many modifications were introduced regarding the regulation of the activities carried out by public administration entities. Because of this, Legislative Decree No. 1256 declared the elimination of illegal and unreasonable bureaucratical barriers that may have been hindering the access or permanence of economic agents into the Peruvian market or that may have contravened laws or principles related to the bureaucratic simplification process.

The aforementioned Legislative Decree aims at public administration entities and all public employees and encourages them to its compliance to improve the use of public resources and to promote the efficiency in the functioning of public administration entities.

Merger control rules in the electric sector

Regarding the electricity sector, the Peruvian Institute for the Protection of the Consumer and Copyright (INDECOPI) has established special regulations on horizontal and vertical mergers which involve entities that develop electrical energy generation, transmission and distribution activities. These rules aim to avoid cases of clusters that may damage, distort or diminish the free market and free concurrence principles of the sector.

For these purposes, a previous authorization for mergers must be requested to INDECOPI's Defense of Free Market Commission by entities who, jointly or separately, own 15% of the market in the case of horizontal concentration (develop one electrical activity), and 5% in the case of vertical concentration (develop two or more electrical activities), before or after the merger. This authorization must be duly supported with documentation.

Once this authorization is requested, the Technical Secretariat of the aforementioned Commission must evaluate if the support documentation is enough for purposes of the requested authorization´s evaluation. If not,

the Commission and its Technical Secretariat are allowed to request further information.

When the information is complete, the Commission has 30 business days in order to evaluate the request. The term for the authorization evaluation may be extended if it is necessary. While this proceeding is in course, the Commission is allowed to suggest modifications to the merger scope and limitations in order to make it free of negative effects on the market of generation, transmission and distribution of electrical energy.

If the authorization is denied, an appeal may be presented before the Defense of the Competence Tribunal No. 1. This Tribunal will reconsider the authorization request and issue a final decision within the next 30 business days.

Notice that in case the vertical or horizontal concentration results from a ProInversion approved promotion project, the aforementioned authorization proceeding may differ.

Real estate investment promotion rules

On August, 2015, by means of Legislative Decree No. 1188, Peru enacted special rules with tax incentives to promote Real State Investment Trusts (REITs) in Peru, called in spanish as Fondos de Inversión en Bienes Inmobiliarios (FIRBI's).Under these rules, companies who provide real state to the said funds from January 1st, 2016 until December 31st, 2019, shall consider that such alienation took place in the date in which the FIRBI transfers real state to a third party or to another participant; or when the company transfers its participation certificates issued by the FIRBI as a consequence of its contribution. The mentioned Legislative Decree also includes certain provisions with tax incentives on municipal taxes (Property Transfer Tax). This regulation has been effective since January 1st, 2016.

Recognition of favorable investment climate

According to the World Economic Forum 2017-2018, Peru is among the top countries in Latin America in terms of macroeconomic environment, market size, financial market development, labor market efficiency, goods market efficiency, and technological preparation, among others.

Exemption of capital gains in the Stock Exchange

On December 10th, 2016, Peru enacted Legislative Decree No. 1261 on the Official Gazette, which made several changes to the Peruvian capital gain temporary exemption.

This exemption was already in force due to Law No. 30341, but was only applicable on capital gains performed in the Stock Exchange that were derived from stocks and securities representative of stocks. Due to Legislative Decree No. 1262, the exemption was extended to the following securities:

- Debt securities.
- Mutual Funds quotes.
- Trading invoices.
- Certificates from Funds in Immovable Property (FIRBIs shares).
- Certificates from Trusts in Immovable Property (FIBRAs shares).

In order to apply for the exemption on the aforementioned securities, certain requirements must be observed, as established by Legislative Decree No. 1262.

Global competitiveness index

	2015 - 2016		2016 - 2017		2017 - 2018	
	Ranking	Score	Ranking	Score	Ranking	Score
Peru Total	65/148	4.24	67/138	4.23	72/137	4.22
SUB-INDEX:						
Basic requirements	74	4.52	77	4.43	79	4.45
Institutions	118	3.26	106	3.3	116	3.22
Infrastructure	88	3.54	89	3.57	86	3.77
Macroeconomic environment	21	5.89	33	5.44	37	5.35
Health and primary education	94	5.39	98	5.33	93	5.44
Efficiency enhancers	62	4.19	57	4.26	64	4.22
Higher education	83	4.08	80	4.13	81	4.10
Goods market efficiency	53	4.47	65	4.37	75	4.28
Labor market efficiency	51	4.33	61	4.34	64	4.27
Financial market development	40	4.49	26	4.75	35	4.51
Technological readiness	92	3.30	88	3.56	86	3.73
Market size	43	4.47	48	4.40	48	4.45
Innovation and sophistication factors	99	3.34	108	3.30	103	3.33
Business sophistication	72	3.93	78	3.78	80	3.81
Innovation	117	2.76	119	2.82	113	2.85

Source: World Economic Forum 2017-2018

Ease of Doing Business in Peru

According to Doing Business 2018, Peru ranks 58th out of 190 countries in terms of ease of starting a company and doing business, and ranks third in Latin America.

Doing Business
(presenting Latin America countries)

Position	Country
49	Mexico
55	Chile
58	Peru
59	Colombia
61	Costa Rica
64	Puerto Rico (United States)
79	Panama
94	Uruguay
97	Guatemala
99	Dominican Republic
108	Paraguay

Source: World Bank (WB) - Doing Business 2018

Forbes
(presenting Latin America countries)

Position	Country
33	Chile
45	Costa Rica
54	Uruguay
57	Mexico
60	Peru
61	Colombia
64	Panama
74	Brazil
92	El Salvador
94	Guatemala
112	Paraguay

Source: Forbes 2017

Summary of doing business indicators

	Indicators	Peru	Latin America and the Caribbean
Starting a business	▸ Number of procedures	7.0	8.4
	▸ Time (days)	26.5	31.7
	▸ Cost (% of income per capita)	10.0	37.5
	▸ Registration of minimum capital paid up (% of income per capita)	0.0	2.1
Construction permits	▸ Number of procedures	15.0	15.7
	▸ Time (days)	188.0	191.8
	▸ Cost (% of warehouse valvue)	1.1	3.2
Property registration	▸ Number of procedures	5.0	7.2
	▸ Time (days)	7.5	63.3
	▸ Cost (% of property value)	3.3	5.8
Getting electricity	▸ Number of procedures	5.0	5.5
	▸ Time (days)	67.0	66.0
	▸ Cost (% of income per capita)	349.6	927.4
Access to credit	▸ Strength of legal rights index (0-12)	8.0	5.3
	▸ Depth of credit information index (0-8)	8.0	4.8
	▸ Credit registry coverage (% of adults)	37.4	14.0
	▸ Credit bureau coverage (% of adults)	100.0	43.1
Protecting minority investors	▸ Extent of conflict of interest regulation index (0-10)	7.0	5.3
	▸ Extent of shareholder governance index (0-10)	5.3	4.1
Paying taxes	▸ Number of payments per year	9.0	28.0
	▸ Time (hours per year)	260.0	332.1
	▸ Total tax and contribution rate (% of profit)	35.6	46.6
Trading across borders	▸ Time to export – Documentary compliance (hours)	48.0	53.3
	▸ Cost to export – Documentary compliance (US$)	50.0	110.4
	▸ Time to export – Border compliance (hours)	48.0	62.5
	▸ Cost to export – Border compliance (US$)	460.0	526.5
Enforcing contracts	▸ Time (days)	426.0	767.1
	▸ Cost (% of claim)	35.7	31.4
	▸ Quality of judicial processes (0-18)	8.5	8.4
Resolving bankruptcy	▸ Time (years)	3.1	2.9
	▸ Cost (% of estate)	7.0	16.8
	▸ Recovery rate (cents on the dollar)	29.7	30.8

Source: World Bank (WB) - Doing Business 2018

Settlement of investment disputes

Foreign investors are protected against inconvertibility, expropriation, political violence and other non-commercial risks through access to the corresponding multilateral and bilateral conventions such as the Overseas Private Investment Corporation (OPIC) and the Multilateral Investment Guaranty Agency (MIGA).

Also, Peru has joined the International Convention for Settlement of International Disputes (ICSID) as an alternative to settle disputes arising between investors and the government. In addition, Peru has signed 31 Bilateral Reciprocal Investment Promotion and Protection Agreements (BRIPPAs) and 12 Free Trade Agreements (FTAs) which include a chapter related to investment.

Pacific Alliance

The Pacific Alliance is a mechanism for in-depth integration, established by the Declaration of Lima, signed by Peru, Chile, Colombia and Mexico on April 28, 2011. Its founding instrument is the Pacific Alliance Framework Agreement, signed on June 6, 2012 in Antofagasta Chile. Its profile is predominantly economic and commercial, and its fundamental purpose is to become an area that fosters greater growth, development and competitiveness of its economies with a view to improving its projection to the world and contributing to an economic rise with social inclusion.

The Pacific Alliance's Framework Agreement determines that, as a fundamental part of the plan to achieve its objectives, efforts should be directed towards the free trade of goods and services,

Bilateral Reciprocal Investment Promotion and Protection Agreements (BRIPPAs)

Source: ProInversion

the free movement of people and capitals, and the development of cooperation mechanisms to encourage investment, as well as the sustainable quality of life for its populations.

As part of this, the Pacific Alliance member countries are completing their legal framework in order to promote the achievement of their objectives, basing their actions on four main issues:

Trade and integration

The Alliance has focused on the fostering of negotiations that translate into measures that will facilitate trade and customs cooperation between members. Efforts are focused towards eliminating tariff barriers, the cumulation of origin with regard to products that contain materials originating in one of the member countries, provided that the customs tariff is 0% everywhere, the reduction of technical obstacles to trade and the alignment with health and phytosanitary measures.

Capitals and services

Within the scope of capitals and services, the Pacific Alliance's actions are directed towards cooperation in investment, cross-border trade of services, financial services, telecommunications, air transport and maritime transport. It also seeks to strengthen the integration of the stock exchanges of the member countries.

Integrated Latin American Market –MILA

The Lima Stock Exchange – BVL (Peru), the Santiago Stock Exchange – BCS (Chile), the Colombia Stock Exchange – BVC (Colombia) and, since, 2014, the Mexican Stock Exchange – BMV (Mexico) together with the central securities registers of each country have integrated their variable income market (shares) by establishing the Integrated Latin American Market (MILA) with which it intends to diversify, expand and make more attractive the negotiation of this type of securities in the four country members, as much for local as for foreign investors.

This integration seeks to develop the capital markets of the member countries, in order to provide investors with a greater offer of securities and issuers with wider sources of financing. It is hoped that the unified market of these countries will become the leader in the region in a number of issuers.

Movement of people

The free movement of people is one of the central pillars of the Pacific Alliance. This workgroup is focused on developing issues such as facilitating migratory transit, free movement of people, consular cooperation, student and labor cooperation, and the exchange of information on migration flows.

Cooperation

The Pacific Alliance seeks to encourage cooperation on aspects that significantly impact the comprehensive development of the population of member countries and the

strengthening of technology of their industries. To achieve this, the main purposes of the cooperation work group are to consolidate a platform of student and academic movement, the structure of a scientific research network on climate change, the identification and use of synergies to increase competitiveness of medium, small and micro business, the execution of physical interconnection projects, and the creation of a cooperation fund.

You can easily find more information in the EY's Pacific Alliance Business Guide at **ey.com/pe/EYPeruLibrary.**

Electrical Regional Market of the Andes

By means of the Decision No. 757 of the Andean Community of Nations, a special temporal regime for the regulation of international transactions on electricity was established between: (i) Peru and Ecuador, and (ii) Colombia and Ecuador.

According to this regime, transactions between Peru and Ecuador are subjected–among others- to the following main rules:

- Electricity exchanges will be subject to power and energy excess of the export country.
- Electricity exchanges will be made under the scope of bilateral supply contracts between the entities to be designated by Peru and Ecuador, up to the limit of the transmission capacity that may be determined by the electrical system operators.
- The importer must assume the applicable regulatory charges in its country.

For these purposes, Peru and Ecuador have compromised to adapt its internal regulations if it is necessary, authorize operative agreements between the electric system operators, and promote special projects and the exchange of technical information required for the operation of the system.

This special temporal regime will be in force until the regulations (operational, commercial and coordination) of Decision No. 816 – that creates the new Electrical Regional Market of the Andes (MAER) – will be published in the Official Gazette of Cartagena. Once such regulations will be published, the MAER will enter in force.

Stabilization fund for prices of oil's fuel derivatives

The Stabilization Fund for Prices of Oil's Fuel Derivatives is an intangible fund created in 2004. It aims too sooth the high volatility of international oil prices, taking into consideration that Peru is a net oil importer. In so doing, the fund establishes maximum and minimum limits (price bands), in order not to let high volatility affect its consumers. It is important to mention that there are price bands for fuels such as:

1. Fuel oil
2. Liquified Petroleum Gas
3. Gasoline 84 and 90 RON
4. Gasohol 84 and 90 RON
5. Diesel BX (mix of Diesel N° 2 and Biodiesel B100, wherein X is the percentage of B100 in the mix)

Products mentioned in items 3, 4, and 5 above are excluded from fund regulations to the extent that they are used in the exploration and production of natural resources, processing of hydrobiological resources,and cement manufacture.

The fund enables the government to compensate producers and importers, so that they do not charge consumers above of the maximum limit whenever oil prices surpass it.

The payments made by the government ("compensation factor") are the result of comparing import parity pricing with the maximum limit. Therefore:

CompF = IPP – MaxLim

Likewise, when oil prices fall below the minimum limit, producers and importers charge consumers with the minimum limit, and make payments to the fund ("contribution factor"), which are equal to the difference between the minimum limit and import parity pricing. Thus:

ContF = MinLim – IPP

The General Bureau of Hydrocarbons (DGH, in Spanish) manages the fund, whilst the Supervisory Body of Private Investment in Energy and Mines (OSINERGMIN, in Spanish) updates the price bands from time to time.

Starting a business in Peru

01

Requirements for foreign investors

Foreign investors shall be able to sign licenses and service contracts and therefore, carry out oil & gas exploration and production activities if they establish a corporation (subsidiary or affiliate) or a branch in Peru. Furthermore, the investors shall appoint a representative, in the case of foreigners with an alien registration card.

The most common types of legal organizations used by foreign investors for doing business in Peru are a corporation (Sociedad Anónima - S.A.) and a limited-liability company (Sociedad Comercial de Responsabilidad Limitada - S.R.L.). However, the Peruvian Corporation Act also provides other forms of legal entities, including two special forms of corporations: the closely held corporation (Sociedad Anónima Cerrada) and the open stock company (Sociedad Anónima Abierta).

In these cases, the legal, technical, economic and financial capacity for carrying out oil & gas exploration and production activities, evaluated by Perupetro, will lay in the parent company, who will be jointly and severally responsible for the capacity of their Peruvian branches and/or corporations. If there is no parent company, the qualification process must be followed by the applicant company.

Associative agreements, such as joint ventures, are also allowed.

02

Establishing a Peruvian corporation

Corporation

A corporation (Sociedad Anónima - S.A.) is composed of shareholders whose liability is limited to the value of their shares. The board of directors and one or more managers manage the S.A. To incorporate an S.A., investors (i.e. the shareholders) shall sign a public deed of incorporation before a notary public and file it before the Public Registry of Legal Entities.

To that purpose, first, investors must grant powers to a representative in Peru to execute said instrument. Also, investors shall request the to Tax Authority (SUNAT) the registration of the company as taxpayer in order to obtain the tax identification number (Registro Único de Contribuyente - RUC). The bureaucratic and legal steps that an investor must complete to incorporate and register a standard S.A. normally take

Requirements of a Corporation (S.A.) in Peru*

Capital

Capital is divided into shares which may be freely transferred with just a private agreement, unless such transfers are restricted by the corporate bylaws. There are no minimum or maximum capital requirements, although issued capital must be fully subscribed and at least 25% thereof paid in upon incorporation. Nonetheless, Peruvian Financial Entities request a minimum deposit of approximately $300.00 for the account opening (the amount may change depending on the Financial Entity). Capital may be supplied in cash or in kind. Value of non-monetary contributions must be reviewed and approved by a majority of the board of directors within 60 days of incorporation and may be challenged in court during the following 30 days.

Control

An annual general meeting is required. Bylaws may specify a higher quorum and larger majorities than those laid down by law. The minimum quorum for a general meeting is 50% of capital on the first call and any number of shareholders on the second call. Most decisions are taken by a simple majority of the paid-up voting shares represented.

For major decisions, such as capital increases or decreases or corporate bylaw changes, the minimum quorum is two-thirds of total voting shares represented on the first call and 60% on the second call, and the decision requires an absolute majority of total voting shares represented.

Founders, shareholders

An S.A. must have a minimum of two individual or corporate shareholders, with no requirements as to their nationality or residence.
The shareholders' general meeting is the supreme body of the S.A. and has power of decision on any subject and the exclusive power of decision with respect to dissolution, amendments to the bylaws and a capital increase or reduction, among other key corporate decisions.

Types of shares

Shares must be nominative and they represent the unit into which the proprietary interests in a corporation are divided. As a general rule, each share gives the right to one vote, but non-voting shares may be issued. Shares shall be recorded in the stock ledger. Different classes or series of shares may be issued, with different rights and/or obligations.
All shares of the same class shall have the same par value but may be issued at a premium or at discount from par. Corporations may purchase their own shares subject to certain limitations. Bylaws restrictions on transfer of shares are permitted.

Management

One or more managers are appointed (and removed) by the board of directors, unless bylaws stipulate appointment by a general shareholders meeting. Managers could be a natural person or a legal entity. When only one manager is appointed, he/she will be the general manager. There are no nationality requirements.

Board of directors

An S.A. must have a minimum of three directors, with no maximum number provided by the law. There are no requirements as to their nationality or residence. Directors may not be shareholders, and they serve one to three-year renewable terms. Directors may be elected by cumulative voting, in which each share has as many votes as there are directors to be elected, and shareholders either accumulate their votes in favor of one candidate or distribute them among several. Elected directors must accept the position expressly and in writing. A quorum is half the board membership plus one. The board of directors has all the powers vested in its by law and the corporate by-laws.

*The obligation to submit audited financial statements to the securities commission, stated for legal entities with annual sales or total assets equal or above 5,000 tax units (not listed in the Stock Exchange), was declared as unconstitutional by the Constitutional Court on April 4th, 2016. Such obligation was in force as from June 2011.

between 15-30 days once the necessary documents arrive to Peru.

The incorporation documents must include, at least, (a) the company's name; (b) business purpose and duration; (c) the company's domicile; (d) the name, nationality, marital status and residence of any individual shareholder and name, place of incorporation and address of any corporate shareholder (a minimum of two shareholders are required to set up an S.A.); and (e) the capital structure (the shares of nominal value and the total number of shares), classes of shares and details of individual initial capital contributions (whether in cash or kind).

Sufficient proof that a minimum of 25% of the capital stock has been paid into a Peruvian Financial Entity before the execution of the public deed of incorporations must also be shown.

Limited Liability Company

The Limited Liability Company or S.R.L. (Peruvian acronym for Sociedad de Responsabilidad Limitada) is subject to registration procedures, reporting and accounting requirements similar to those for the S.A. The minimum number of partners is two and the maximum 20, whose liability is limited to their capital contributions. At least 25% of each participant's contribution to capital must be paid-in upon founding.

Although to incorporate a S.R.L no minimum capital is specified, entities of the national financial system request a minimum deposit of approximately US$300.00 for the account opening.

The S.R.L.'s capital is divided into and represented by participating interests which cannot be denominated shares and which are not freely negotiable certificates. Capital holdings may be transferred outside the company only after they have been offered through the management to other partners or the company itself and they have declined to purchase the offered interests. Further restrictions on transfers may be set out in the bylaws.

The partner's general meeting shall entrust the company's management to one or more managers who are not required to be partners in the S.R.L. or Peruvian citizens. Decisions are determined by the majority of capital contributions.

The main characteristics of the S.R.L. are:

- Limited liability. Partners are not personally liable for the corporation's liabilities.
- Centralized management. Partners general meeting and one or more managers (no board of directors is required).
- Transfer of interest. Transfer of partners interest to third parties is subject to approval by the existing partners and must be registered in the public register.
- Continuity. Death, illness, bankruptcy, retirement or resignation of any partner does not cause the dissolution of the entity.

Closely Held Corporation

Provisions applicable to the S.A are applicable to the closely held corporation subject to certain specific provisions. A corporation can be classified as closely held if it does not have more than 20 shareholders and its shares are not listed in the Stock Exchange. The closely held corporation has certain features found in a limited-liability company (for example, limited liability of equity owners, absence of freely transferable equity shares and no requirement for a board of directors).

Public Corporation

A corporation will be considered "open stock" when either (i) it has undertaken an initial public offering (OPP) or stock market launch to sell its stock to the public; (ii) it has more than 750 shareholders; (iii) at least 35% of its shares are held by at least 175 shareholders; (iv) it is incorporated as an open stock corporation; or (v) all the shareholders with voting rights agree unanimously to subject the company to the legal regime applicable to open stock corporations. This form of corporation is subject to the Securities Market Act as well as to certain specific regulation on minority shareholders protection, public disclosure, among others.

03

Establishing a branch

Branches are another type of investment vehicle that foreign investors can establish for carrying out oil & gas exploration and production activities. The branch does not have legal independence or legal personality distinct from its parent company, except for tax purposes. Therefore, the branch will be regulated by the parent company's bylaws and its activities must be within the parent company's corporate purpose.

In the case of branches, the capital assigned by the parent company does not have any limitation, but it shall be deposited or wire transferred in a Peruvian financial institution. However there is no obligation to credit the transfer for registry purposes. The parent company remains fully liable for the obligations assumed by the branch.

The branch operates through its legal permanent representatives with sufficient powers.

Procedures for organizing a branch in Peru are similar to the procedures applicable for organizing corporations or limited liability companies. It takes between two to three weeks to register a branch once the necessary documents, such as the certificate of existence of the parent company and the apostille documents, among others, have been submitted to the Peruvian notary public.

These documents include copies of the parent company's corporate charter and bylaws, minutes of the shareholders agreement to set up a branch in Peru, certification of the branch's address, assigned capital and line of business, notifications of the appointment and powers of a legal representative in Peru and a Peruvian consul's certification that the parent company is duly constituted in the country of origin and entitled to set up a branch in a foreign country. All these documents must be duly apostilled.

Procedures for organizing a branch in Peru are similar to the procedures applicable to organizing corporations or limited liability companies.

04

Associative agreements

Associative agreements are another type of investment vehicle that allow different companies (and individuals) to jointly participate and integrate into certain businesses or enterprises for reaching a common purpose. This type of investment vehicle is very common in the hydrocarbon sector because of the great risk involved in carrying out this type of activity. This makes sense due to the large amount of investment normally incurred in the exploration and production phase.

Unlike the other types of investment vehicles, an associative agreement does not create a corporation or legal entity different from its associates. Indeed, even though they have a common purpose in developing a business activity together; associative agreements do not create legal entities, therefore, each of the parties keep their legal personality and patrimonial independence.

There are three basic types of associative agreements that could be applied in Peru:

a) partnership contracts, b) consortiums; and c) joint ventures; the latter not being regulated in the Peruvian Corporations Act. Resources assigned to the aforementioned contracts will be considered as foreign investment provided these contracts grant foreign investors a participation in the production capacity, which does not qualify as a capital contribution. Also, these investment vehicles should correspond to contractual commercial transactions through which a foreign investor provides goods or services, obtaining a participation in the physical production, the global sales amount or the net profits of the company that receives the investment.

To carry out hydrocarbon activities, each of the parties should be qualified as a contractor by Perupetro. To have such qualification, they should be legally, technically, economically and financially qualified to engage in obligations, regulations and investments required for developing the hydrocarbon activity. One of the parties must be assigned as the operator responsible for conducting the activities; however, all of the parties will be jointly and severally liable before Perupetro for the assumed contractual obligation.

Hydrocarbons in Peru

Peruvian territory has a privileged location that offers a myriad of possibilities to all sorts of investment.

Peru is a country that is most known for its mining industry. This should be no surprise since mining has been a central activity of the territory's economy since pre-hispanic times. Most rankings place Peru as one of the top mining investment destinations, and one of the most prominent producers.

However, aside from being rich in mineral resources, Peruvian territory has a privileged location that offers a myriad of possibilities to all sorts of investment. Indeed, the Pacific Ocean and Humboldt Current make Peruvian fishing industry one of the world's most productive, Peru's three geographic regions (coast, highlands, and jungle) fuel, its growing world-renowned cuisine industry, while its immense cultural heritage, crowned by Machu Picchu, make Peru quite an attractive tourism destination.

The oil & gas industry is part of Peru's almost limitless investment options. The northern regions hosted Latin America's first oil drilling wells, while Camisea's natural gas reservoirs changed the Peruvian energy matrix forever. In fact the Camisea project and their surroundings assure the supply to even more gas-to-power projects, especially in the southern regions.

On the other hand the Government is working on the scope and applicable regulatory issues to implement an Energy Policy that may suit the future needs of the country.

This comes along with the need to take measures to prevent climate change consequences. Recently, in April of 2018, the Climate Change actions Framework Law was approved by the Legislature. By means of this Law, Peru shows its promise to take planned actions in order to reduce its contaminant emissions and become and eco-friendly country as a measure to prevent the consequences of the climate change. Peru is the very first country to have such legal regulations since the signing of the Paris Agreement on climate change issues.

Finally, it is important to note that Peru has great sources for the development of new kinds of electricity power. In this regard it is expected that, in the future, the industry of clean energy will increase its participation in the Peruvian Energy Matrix by means of the utilization of energy sources such as wind, biomass, water and solar.



Hydrocarbons in Peru

3 Secc A | Oil & gas

National Energy Programme 2014-2025

On November 2014, the Ministry of Energy and Mines presented the National Energy Programme 2014-2025. This document forecasts the energy demand of the country until 2025. It also sets down how this demand could be satisfied through alternative and traditional energy sources.

The provision set forth in the energy planning for the country through 2025 expects an increase in the consumption of liquid hydrocarbons from 209,000 bpd to 285,000 bpd or, another scenario, from 212,000 bpd to 339,000 bpd, stressing the necessity of new infrastructure. Therefore, the optimization projects of the Talara and La Pampilla refineries will gain special importance in order to reach those expectations, as well as onshore and offshore exploration and exploitations projects

Another relevant topic regarding demand of hydrocarbons is that of the massification of natural gas, which is already consolidating with the beginning of operations of multiple gas distribution through pipelines concessions, and more biddings on that matter. It is expected that the national demand for natural gas will rise from 1900MMscfd to 2400MMscfd by 2025, making it necessary to develop a national pipeline system for its supply.

In order to achieve this goal, minimum annual goals will be established, so that oil production can increase from the current 43 Mbpd to 153 Mbpd by 2025. It is worth mentioning that the optimization of the Talara and La Pampilla refineries and the biddings and direct negotiations on new Blocks will be crucial to complete this task.

In that regard, during 2017 more than 3 offshore Blocks were assigned to new investors via direct negotiations. However, it is expected that during 2018 new biddings will be launched on new Blocks around the country.

To the extent that new exploration projects achieve commercially viable exploitation operations, and pipeline infrastructure is developed to reduce transportation costs, natural gas and liquefied petroleum gas might increase their participation in the final consumption of energy in the country. Moreover, natural gas projects could establish themselves as the cornerstone to developing new gas-to-power projects, like those that are already operating in southern Lima and the Southern Power Node.

It is expected that during 2018 new biddings will be launched on new Blocks around the country.

01

Importance of Peru's oil & gas sector

The oil & gas sector in Peru has gone through a transformation, from an industry in decline to a major contributor to the economic growth in Peru.

Historically, Peru became an importer in the late1980s and early 1990s. The combination of a state-dominated turn in Peru's energy sector in the 1960s (political interference such as policies that changed from government to government, refusal by various governments to grant new contracts, and fixed petroleum prices) and a lack of significant discoveries over the years, set Peru on a path of dwindling reserves. The implementation of such policies caused a decline in private investment.

Under these circumstances, the military regime decided to expropriate the International Petroleum Company and created a state-owned oil company named Petroperu, which controlled the sector for approximately 25 years. Nevertheless, their management did not result in an improvement of the sector as revenues, and reserves and production started declining. For this reason, the government in force through the 90's decided to restructure the company implementing a privatization process, ceasing Petroperu's downstream operations, and assigning Perupetro (newly created governmental agency) the commercial faculties to negotiate and subscribe license and service contracts with investors (see more detail about Petroperu in page 74).

As a result, Peru's oil & gas sector became more competitive. From 1990 to 1997, investment in the sector increased from $20 million to $4.3 billion. Areas under operation hiked from 1 million to 23 million hectares in the same period. Prices were set by the market, not by the State.

This growth increased significantly in 2004- 2005, when the major discoveries of natural gas reserves near the Camisea River in the Amazon began producing (which now is known as the "Camisea Project")*. From that moment on, Peru has entered into a takeoff stage, explained not only by the Camisea discovery and the geology of the country's potential, but also by the economic and political stability that it has achieved during the last years. This situation boosted the oil & gas

Hydrocarbon Investment
(2005-2017 exploration and exploitation phase in millions of US$)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017*
Exploration	96.40	136.30	251.00	539.10	539.10	747.06	476.90	785.080	438.04	501.70	299.40	46.95	17.07
Exploitation	254.90	551.90	855.00	610.80	610.80	576.50	884.00	731.102	812.49	688.01	382.87	287.65	469.79
Total	351.30	688.20	1,106.00	1,149.90	1,149.90	1,323.90	1,360.90	1,516.18	1,250.53	1,189.77	682.28	334.60	486.86

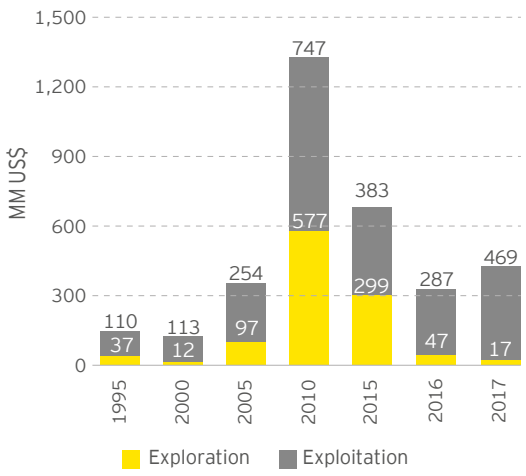
*The numbers shown for year 2017 include investments performed from January to December 2017.
Source: Perupetro

sector, as well as the oil & gas discoveries in several locations of the country. The rising investment in Peru during the last years reflects such growth.

Due to smarter energy management, Peru began to diversify its energy use, reduce its dependence on imports, and position itself as an exporter of liquefied natural gas (LNG). Still, challenges remain, particularly as exploration and development activities begin to recover from a context of low prices.

(*) The Camisea Project was discovered in 1989

Oil exploration and exploitation investments evolution (1995-2017)



Sources: Perupetro

Estimated investment by sector percentage (2018-2019)*

Sector	2018 - 2019
Mining	36.6%
Infrastructure	22.4%
Oil & gas	11.1%
Electricity	5.3%
Industry	4.2%
Other sectors	20.4%
Total:	100.00%

*Estimated as of March, 2018
Sources: BCRP

According to Peru's Central Bank, 12.0% of the investments to be made in 2018-2019 will be related to oil & gas activities. These new investments are expected to exceed those achieved in 2016 by 5.0%.

Some of the investments that are going to take place in 2017 correspond to ongoing projects that may lead to new opportunities.

In relation to upstream projects, the most important investments are focused in the northern and southeastern regions. The first ones show promising results in offshore blocks, while the latter ones are taking advantage of the infrastructure developed for the Camisea Project (gathering systems, infrastructure, among other facilities).

Midstream projects are still some of the most promising projects nowadays. While TGP finished the third expansion of Camisea's pipeline, thus allowing higher supply for consumption and exports, the Southern Peruvian Pipeline concession might have a new international bidding as soon as the Goverment finds the best way to transfer assets of the project to the winner of the new bidding. The new Southern Peruvian Pipeline will raise particular interest due to raising natural gas demand in the southern regions of the country. Moreover, due to its importance to the production of northeastern jungle Blocks, Petroperu (National Oil Company) has recently announced its intention of joining with a private company in order to work on the extension of the Northern Peruvian Pipeline, a project of approximately USD 1 billion.

Downstream activities have also renewed the interests of investors and the government. Indeed, the Talara and La Pampilla Refineries' Modernization Projects continue their development aiming towards complying with the legal dispositions to supply cleaner fuels to consumers, as well as refining heavy oil more efficiently. That is just a glimpse of how much downstream projects have drawn attention lately, as there are two distribution concessions of natural gas by virtual pipelines that began operations in November 2017, which could also lead to the development of other industries in the northern and southern regions. It should be added that several other concessions await to begin operations or be awarded by the Government.

In 2012, Peru ranked 98th out of 147 countries in a survey done by Fraser Institute, which focused on the attractiveness for global oil & gas investment. In 2014, it ranked 79th out of 156 countries; in 2015, 89th out of 126; and in 2016 it ranked 64th out of 96 countries. In that regard, Peru achieved its best position ever in 2017, when it ranked 58th out of 97 countries.

In order to capitalize such achievement, the government and Congress are currently working on making amendments to the Hydrocarbons Law, in order to establish the appropriate incentives, especially in royalties, social, environmental, and infrastructure matters to promote investment in the sector.

2017 Resource Governance Index

Rank	Country	Resource Measured	Composite	Value Realization	Revenue Management	Enabling Enviroment
1	Norway	Oil & gas	86	77	84	97
2	Chile	Mining	81	74	81	90
3	Canada (Alberta)	Oil & gas	75	69	59	97
4	United States (Gulf of México)	Oil & gas	74	66	63	93
5	Brazil	Oil & gas	71	62	78	72
6	Colombia	Oil & gas	71	59	85	67
7	Australia (Western Australia)	Mining	71	65	51	96
8	India	Oil & gas	70	75	66	69
9	Trinidad and Tobago	Oil & gas	64	64	57	71
10	Peru	Mining	62	68	57	62
11	Mexico	Oil & gas	61	64	54	65

Source: Natural Resource Governance Institute

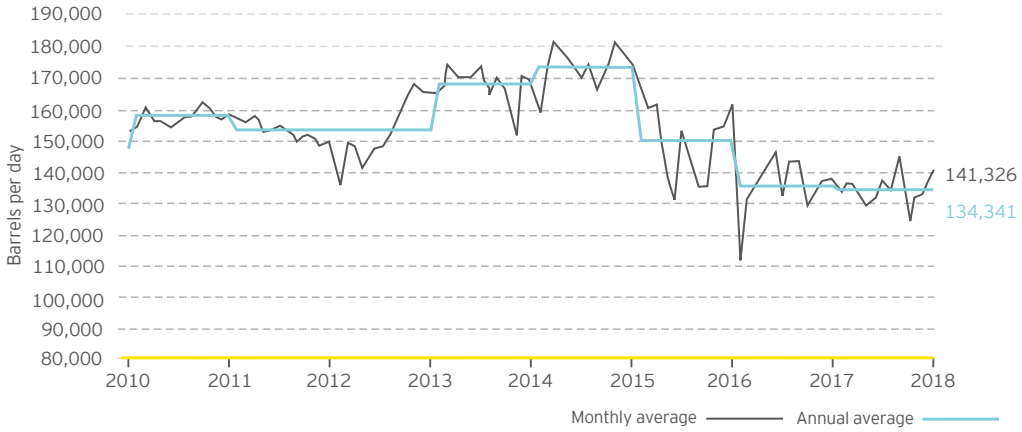
Global Petroleum Survey 2017

Ranking of countries made according to the scope of investment barriers (based on the composite index score of Fraser Institute).

	2013	2014	2015	2016	2017
Countries					
Argentina - Mendoza	150	108	103	74	56
Argentina - Neuquen	142	99	91	59	45
Argentina – Santa Cruz	143	140	107	86	71
Bolivia	145	153	117	93	96
Brazil – Onshore CC	154	87	66	82	41
Brazil – Offshore CC	114	69	47	65	53
Brazil – Offshore presalt arena	113	102	68	81	65
Colombia	31	59	60	53	47
Ecuador	74	155	121	89	93
Mexico	87	126	82	68	77
Peru	115	79	89	64	58
Venezuela	157	156	125	96	97
Notes: ▸ **CC:** Concession Contract ▸ **PSC:** Profit Sharing Contracts					

Source: Fraser Institute

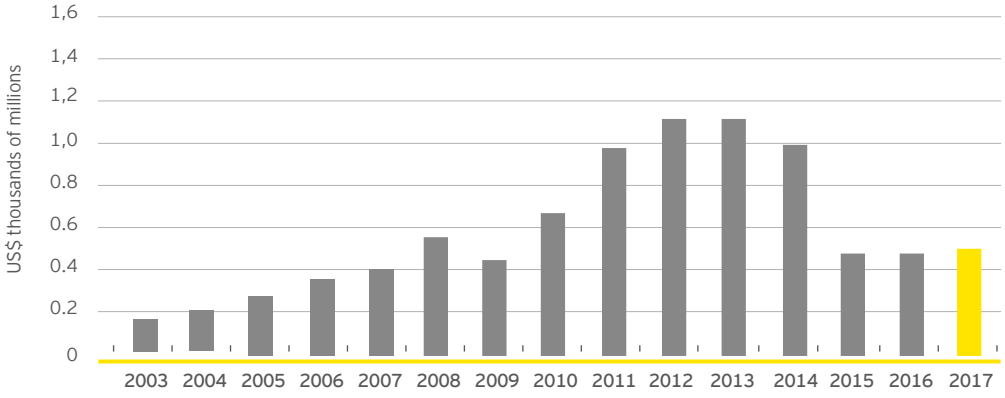
Oil and liquid hydrocarbons average audited production* (2007-2017)



*Includes petroleum and natural gas liquids.
Source: Ministry of Energy and Mines Ministry of Energy and Mines

Oil & gas canon revenues

The oil & gas canon is a portion of the generated income obtained by the Government for the oil & gas exploitation. The beneficiaries of such revenues are the Local and Regional Governments, among other public entities located in the area exploited. The following chart shows the amount of revenues obtained and destined to oil & gas canon since 2003.



Source: Perupetro

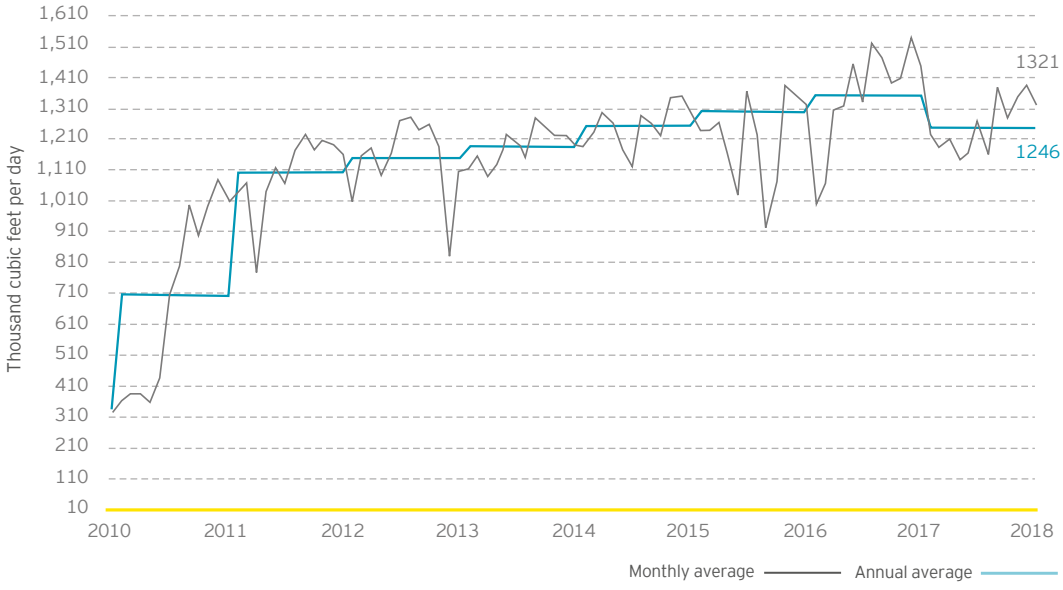
Fiscal revenues (2007-2017 in billions of US$)

The oil & gas industry represents one of the main sources of fiscal revenues, and comes not only from the activities carried out in the Camisea Project (Blocks 56 and 88), but also from the activities executed in other blocks.

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017*
License contracts	791.03	1,132.01	859.12	1,319.57	1,998.33	1,894.75	1,932.66	1,608.19	728.98	627.39	792.06
Service contracts	65.03	85.30	54.10	73.89	1.00	105.03	88.27	85.01	39.96	32.86	36.78
Total	856.03	1,217.31	913.22	1,393.46	1,999.33	1,999.78	2,020.93	1,693.21	768.94	660.25	828.84

*Estimated as of December 31, 2017
Source: Perupetro

Average natural gas audited production (2007-2017)



Source: Ministry of Energy and Mines

Transparency in oil & gas activities

EITI (Extractive Industries Transparency Initiative), a global coalition of governments, companies

and civil society, is an international organization that is working together to improve openness and accountable management of revenues from natural resources.

By joining EITI, countries implement the EITI Standard to ensure full disclosure of taxes and other payments made by oil, gas and mining companies to governments, which are disclosed annually in the EITI report, so that citizens can be aware and informed of how much their governments receive from the exploitation of natural resources and also where such funds are destined.

Peru joined EITI as a full member in 2005, given the importance of oil & gas, and mining activities in the national income, and its meaningfulness in the Latin American and global production. Thus, Peru became the first Latin American country to join the initiative and show meaningful progress towards meeting the 2016 EITI Standard, ensuring transparency and stability of the rules related to the incomes from extractive industries.

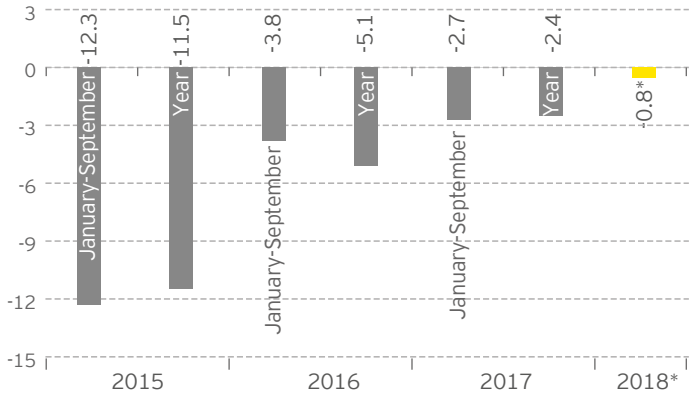
02

Hydrocarbon production and exports

The investment and work involved in the sector contributed to the recovery and the positive evolution of the hydrocarbon national production. An emblematic example of this growth is the Camisea project. This project was not only significant to the country, but it also contributed to putting Peru on the map of natural gas producers.

The hydrocarbon investment for years 2018- 2019 is estimated at approximately US$4 billion and the growth of the sector is estimated to be 1.8% for 2018, after two difficult years marked by low oil prices. This growth will rely on the investment portfolio and Peru's geological potential, which already has the attention of investors interested in offshore Blocks.

Estimated GDP Hydrocarbon growth until 2017



*Estimated as of March, 2018
Source: BCRP

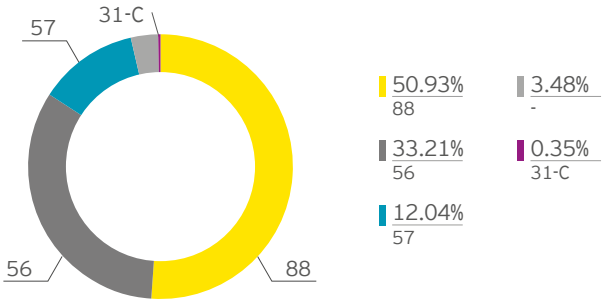
Hydrocarbons audited production (2007-2017)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017*
Petroleum (MBLS)	28,146	28,027	25,927	26,531	25,387	23,984	22,956	25,296	21,173	14,773	15,900
NGL (MBLS)	13,416	15,903	27,100	30,832	20,354	31,596	38,187	37,751	33,360	34,671	33,134
Natural Gas (MMCF)	96,206	122,230	125,300	255,609	401,169	418,795	430,559	456,407	441,244	494,930	457,050

* Estimated as of December, 2017.
NGL: Natural Gas Liquids
Source: Perupetro

Natural gas audited production by oil well (2017)

	Block	Accumulated (MCF)*	%
Northern area	-	15,924	3.48
Aguaytía	31 - C	1,584	0.35
Pluspetrol	88	232,768	50.93
Pluspetrol	56	151,765	33.21
Repsol	57	55,007	12.04
Total		**457,048**	**100.00**



*MFC: Thousands Cubic Feet
Source: Perupetro

O&G Projects in the mid and long-term

Now that the scenario of low international oil prices during 2014 and 2015 seems past, Peru is recovering its attractiveness as an investment destination in every segment of the hydrocarbons sector, especially upstream. Certainly, the stabilization of oil prices around US$50, and the news of upcoming changes in legislation have boosted projects in the mid and long-term, especially those related to offshore Blocks near the northern coast.

Hence, hereby we provide an outlook of investments related to upstream, midstream, and downstream phases, to be carried out in the mid and long-term.

Main investment projects

The total private capital investment projects expected for 2018 is worth approximately US$18,369 million. Almost 12% of that amount will focus directly in the oil & gas sector, considering the development of the following projects:

- Exploration activities on Block 58, carried out by China National Petroleum Corporation.
- Exploration activities on Block Z-38, headed by Karoon Gas Natural.
- Exploration activities in off-shore Blocks Z-61, Z-62, and Z-63 by Anadarko; and off-shore Blocks Z-64, Z-65, Z-66, Z-67, and Z-68 under negotiation.
- Natural gas distribution through pipelines concessions.

The projects stated above focus in upstream activities on some of Peru's most promising Blocks.

Indeed, after successfully finding reserves that represent almost 25% of those in Camisea, CNPC will invest more than US$ 4,000 million in the exploration and exploitations of Block 58, which is contiguous to Camisea's Blocks (56 and 88).

It is possible that, like what happened with Repsol and CNPC's Block 57, Block 58 will likely take advantage of the already existing facilities in Camisea.

Even though Blocks nearby Camisea do seem attractive due to their potential (besides those located in the northwestern Regions, historically known for their oil production), in 2017 off-shore projects have caught investors' attention.

In that regard, companies such as Tullow Oil and Anadarko have completed negotiations to acquire several License Contracts on off-shore Blocks.

For example, Anadarko will invest more than a US$ 100 million in three off-shore Blocks, while additional investment will be made in Block Z-38, and other offshore Blocks such as Z-64, Z-65, Z-66, Z-67 and Z-68.

These off-shore projects are the product of direct negotiations with Perupetro, which agreed to a minimum royalty rate of 5%.

Notwithstanding the upcoming off-shore projects, midstream projects await better conditions to re-launch biddings.

In that regard, not only will the Southern Peruvian Gas Pipeline be the most important hydrocarbons' infrastructure project awaiting new investors, but also Petroperu (NOC) will start looking for a partner in order to expand the Northern Peruvian Pipeline. Together, both projects have estimated investments of around US$ 5 billion.

It is also worth mentioning that downstream activities are gaining momentum due to new environmental regulations regarding fuels and efforts to hasten a shift in the energy matrix.

Indeed, the biggest refineries in the country (La Pampilla, owned by Repsol; and Talara, owned by Petroperu – NOC), are both undergoing modernization projects in order to produce cleaner fuels and refine heavier oil.

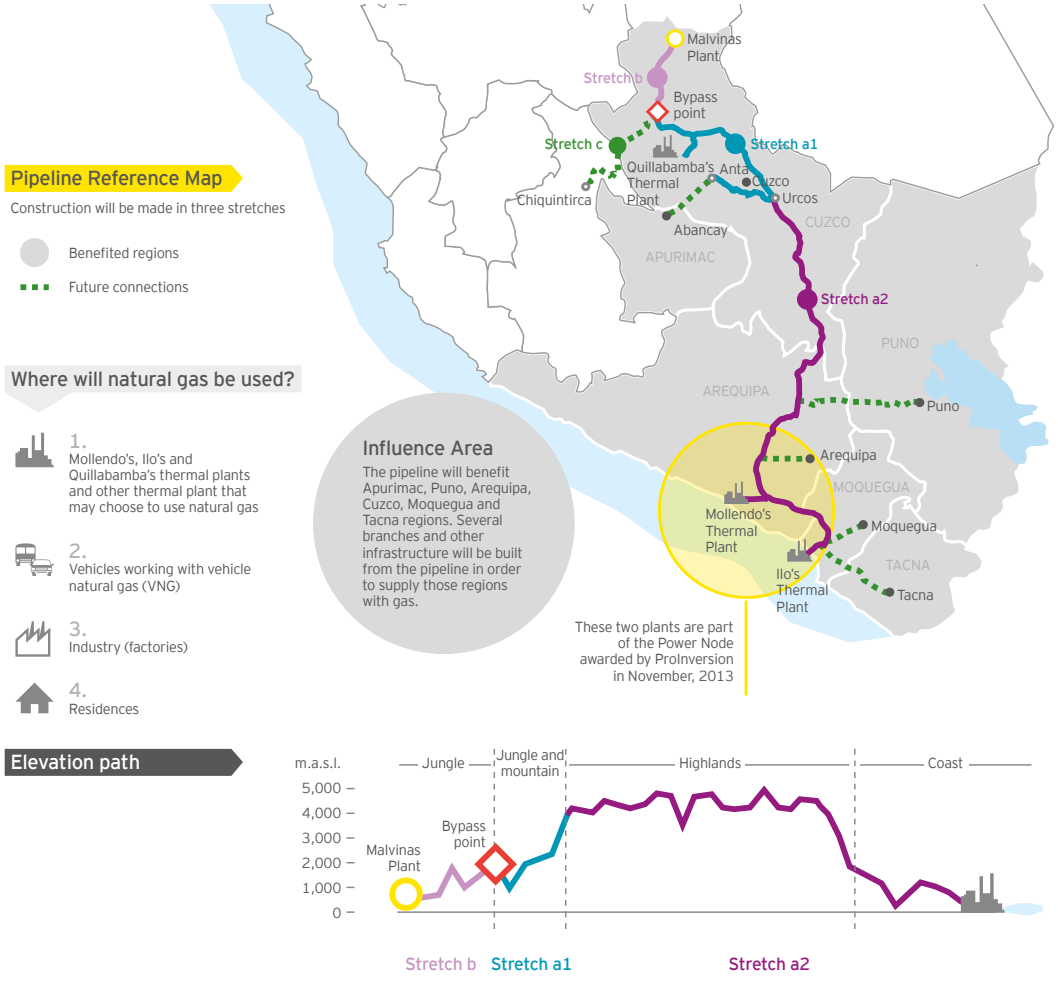
On the other hand, Government's efforts to materialize the massification of natural gas among Peruvian population continue. Certainly, while Calidda's and Contugas' networks and connections keep growing, there are new distribution concessions that began operations during the last quarter of 2017, and that will be the object of international biddings during 2018.

In that regard, we can mention Fenosa and Quavii, who were awarded with their distribution concessions in 2013, and received the first shipment of liquefied natural gas delivered from Pampa Melchorita via virtual pipelines (cryogenic trucks) on November 2017.

While Fenosa will distribute natural gas in the southern regions of the country (cities of Arequipa, Mollendo, Ilo, and Tacna), Quavii will do so in the northern regions (cities of Chimbote, Trujillo, Huaraz, Cajamarca, Chiclayo, Lambayeque, and Pacasmayo). It is expected that both Fenosa and Quavii will accomplish around 116,000 connections during the first 7 years of operations.

Fenosa's and Quavii's concessions will be complemented by the upcoming international bidding to award the natural gas distribution concession for the central regions of the country (Apurimac, Ayacucho, Huancavelica, Junin, Cusco, Puno, and Ucayali). Expected investment amount for this project is of US$ 350 million.

Southern Peruvian Gas Pipeline Project - Reference map



Source: Ministry of Transport and Communications

03

Diversifying the energy matrix: Natural gas

The development of natural gas and condensates from the Camisea project have created a new strategic option for the energy sector in Peru.

Such development has contributed to increase the reserves and hydrocarbon production and, therefore, the supply and demand patterns of such an energetic matrix.

Before the arrival of natural gas, the energy matrix of Peru depended on liquid fuels – primarily imported diesel, coal, wood, and other traditional energetics. Nowadays, the consumption of liquid fuels has been reduced, in order to introduce different energy sources, such as LPG (Liquefied Petroleum Gas) and VNG (Vehicle Natural Gas). In the future, Peru intends to generate a matrix based not only on petroleum, but equally on renewable energy and natural gas.

The global trend, in terms of fuel oil is to replace oil with other sources that are cleaner and cheaper. So by the time Camisea's potential is fully developed (Blocks 57, 58, among others), Peru will be energetically integrated into all corners. The development of this industry will trigger the possibility of progressing in the domestic and foreign markets, which will contribute to a future advance on petrochemical, fertilizer and other projects.

Camisea Project

Camisea's estimated hydrocarbon reserves are around 13 million cubic feet of natural gas and 660 million liquid barrels. It is estimated that these reserves will reduce the cost of electricity and national fuel by the time they commercialize.

Natural gas: the fuel of the future

Camisea has contributed greatly to Peru's development by providing a steady and increasing flow of a clean energy source. However, Camisea's gas is far from just being a hydrocarbon used directly in the industrial and housing sectors, as well as for exports: arguably, its biggest contribution is the provision of the necessary raw material to generate electricity.

Camisea's gas impact on savings in power generation are estimated to be around US$22.4 billion during its first 10 years (the project began operating in 2004). Without a doubt, it has dramatically changed Peru's energy matrix, and because of this, it has paved the way for some of the most ambitious energy and infrastructure projects for the mid-term.

Thermoelectric plants projects

Due to the development of the Camisea project, and the increasing availability of natural gas through the pipeline that connects such fields to the coast, many projects regarding thermoelectric power plants have started operating in recent years.

Certainly, the gas pipeline has allowed thermoelectric power plants to be constructed and operated some kilometers to the south of Lima, in Chilca. Fenix Power, Engie, Kallpa, and Termochilca operate thermoelectric power plants in Chilca, generating around 16,000,000 MWh of a great total of 48,587,388 MWh generated in the country during 2016. Some of the aforementioned companies have currently developed extensions of their power plants in Chilca.

Nonetheless, the southern power node has already received investments to develop thermoelectric power plants. Engie is running some of those plants, and some other investors might find it attractive for new projects in the node and its surroundings, especially when the southern Peruvian pipeline starts operating.

Camisea's deposits are large enough to satisfy the actual energy needs of the country for more than a decade. This is why it is one of the most important energy sources of the country.

The Camisea zone is located approximately 500 kilometers to the southeast of the city of Lima, the capital of Peru, on the eastern slopes of the Andes in the region of Cusco. It is located in the Bajo Urubamba valley, one of the areas with the most natural biological diversity in the world.

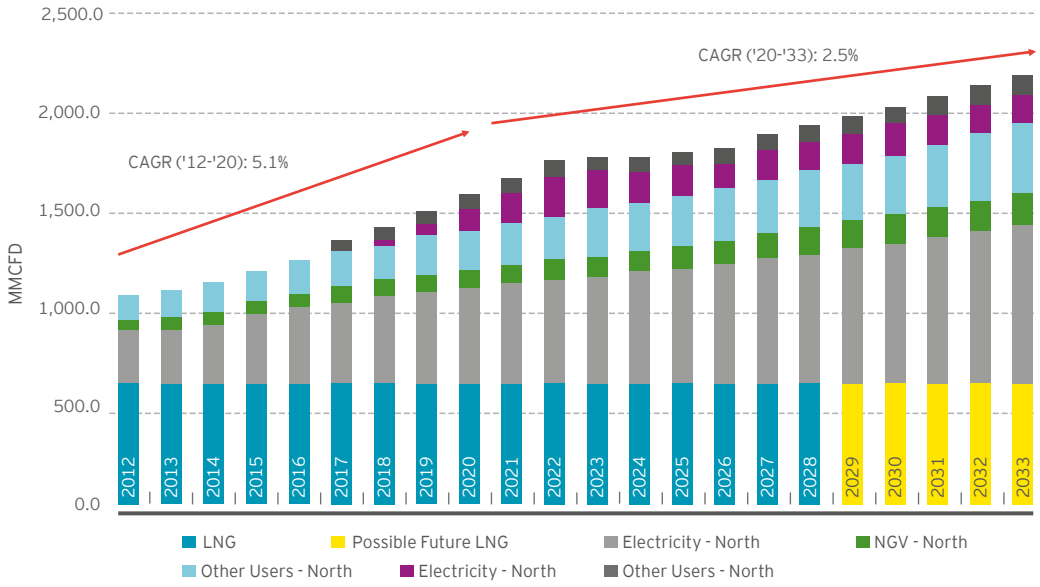
The major part of the reserves are located in two main gas fields, San Martín and Cashiriari, located in opposite banks of the Camisea River. Blocks 88 and 56 are known as the Blocks of the Camisea project.

Three main actors are involved in the management of the natural gas industry in the Camisea project, at different stages. The production stage was granted by the government to the Consortium integrated by Pluspetrol (operator) - Hunt Oil - SK Innovation - Repsol Exploración Perú - Sonatrach Peru Corporation - Tecpetrol. The transportation and distribution stages have been granted to Transportadora de Gas del Perú S.A and to Gas Natural de Lima y Callao S.A (Calidda), respectively.

Camisea's gas is also currently available in Ica, as well as some southern and northern regions of the country, through the distribution concessions awarded to Contugas, Fenosa and Quavii. In that regard, the region of Piura might also benefit from the supply of liquefied natural gas coming from Pampa Melchorita's plant (very much like Fenosa and Quavii) in 2018, while the central regions of the country await ProInversion's bidding in the short term. As can be noted, natural gas is on its way to becoming the standard energy source for Peruvian society.

In the future, Peru intends to generate a matrix based not only on petroleum, but equally on renewable energy and natural gas.

Natural gas demand forecast (2012-2033)



Sources: Wood Mackenzie's analysis / COES

04

Growth potential

Peru has 18 sedimentary basins with hydrocarbon exploration potential. However, only three of them have been exploited, which shows that an important part of the national territory with hydrocarbon potential has not been explored yet, especially in the jungle and in the coast.

According to Perupetro, Peru is one of the few countries in the world whose territory is relatively underdeveloped, which means that it has an almost intact hydrocarbon potential.

Ten basins are located in the continental zone of Peru (in the coast and in the south and north jungle), and the rest are located offshore.

The basins located in Talara, Marañon and Ucayali are the best known. Further studies have been conducted at these basins, especially in the Talara basin, that has been explored and has had production fields since the 19th century. On the other hand, the Marañon basin (northern jungle) already has production oil wells and new structures have been discovered, but still this basin is only partially exploited.

In the same sense, even though the Ucayali basin (northern and central) has not been explored yet, in the south zone are the Camisea fields, which are the principal natural gas deposits of Peru.

Regarding the other 15 basins whose potential have not been explored in detail, we have the Santiago and Huallaga basins, where abundant crude samples have been found, inferring the existence of active oil systems. We also have the Madre de Dios basin, where preliminary studies confirm the presence of gas deposits.

A case that may bring attention is the Titicaca basin, which produced light oil in very antique fields at the beginning of the 20th century. In the case of natural gas, in 2014 the Chinese company CNPC acquired Petrobras' assets in the country, therefore comprising an investment of US$1.4 billion in exploration activities in block 58, near Camisea fields. It was estimated at up to 8 trillion cubic feet of natural gas. Recently, they announced that Block 58 exploratory efforts were successful, granting almost 4 TCF in reserves.

Petroperu (National Oil Company)

Even though Petroperu, a state-owned company of private law, initially was not actively involved in exploration and exploitation of hydrocarbon activities, which occurred as a consequence of the privatization process during the 90's; nowadays it is re-

assuming its participation in the hydrocarbon production scenario.

In 2006, Peruvian Congress passed Law No. 28840, which allowed Petroperu to return to participate in all stages of hydrocarbon activities, especially in exploration and production. Thus, it could be a competitor in every activity of the industry.

The first step into reinserting Petroperu into upstream activities was taken in October 2014, when Petroperu associated with a private company planning on exploring and producing hydrocarbons in Block 64. The acquisition of 25% interest in Block 64's License Contract might be complemented with the acquisition of significant interest in Block 192's License Contract in the short term. Block 192 was the highest producing block in the country during the last decade, and could be an ideal opportunity for Petroperu in its return to upstream operations.

Aside from Petroperu's return to upstream activities, it should be mentioned that in 2016 the aforementioned NOC was authorized by Congress to adopt all the necessary measures to assure the correct engineering, procurement and construction of the new assets that will let Talara's Refinery to be able to produce LPG, oils and 50 ppm sulfur diesel. Not only does this project make the Peruvian northern region more dynamic, allowing refining of heavy oil from Jungle's Blocks, but it also assures the total nationwide supply through Petroperu's fuel distribution grid.

Petroperu's reorganization and its participation in social projects

On December 31, 2016, by means of Legislative Decree No. 1292, the government declared the necessity to modernize and reorganize Petroperu.

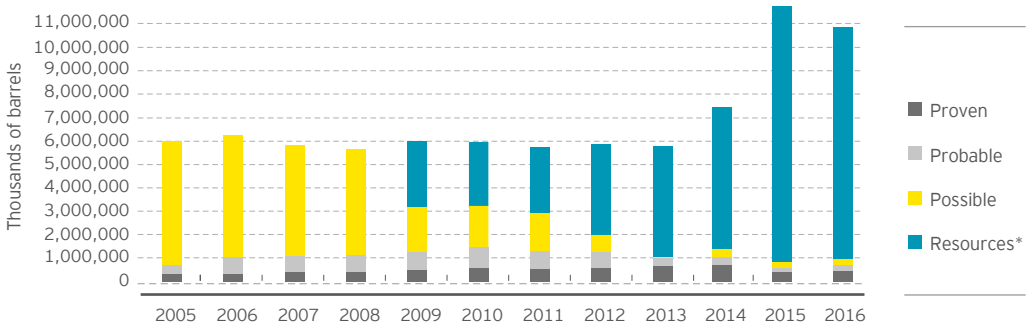
For this purpose, it authorized Petroperu to modify totally or partially its internal structure in order to improve the efficiency of its operation, increase its operational capacity and to modify its services to reach an adequate standard of performance, considering the necessity to protect the environment and the nearby communities.

Also, Petroperu has been authorized to contract third parties by means of joint venture, services contracts, among other forms, regarding the management and operation of its current projects and the future ones. By this, the government has noted that despite the authorizations given to Petroperu, it is still a public entity.

In the same Legislative Decree, Petroperu has been authorized to participate as a partner and also as an operator (if agreed) in the exploration and the exploitation of hydrocarbon activities according to the terms and conditions included in the correspondent contract. For these purposes, the only condition that it must fulfill is not making any disbursement while developing exploration activities. It is worth mentioning that due to the said Legislative Decree No. 1292, Petroperu is now authorized to organize and carry social responsibility activities through the Regime called Construction work for Taxes, according to Law No. 29230.

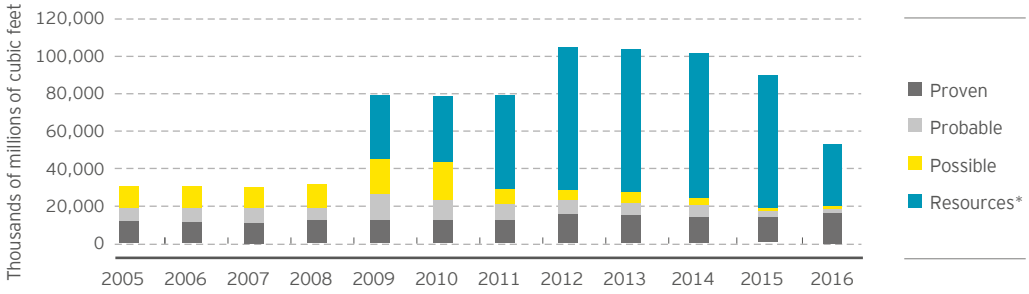
Oil & gas companies must fulfill all the requirements needed to develop exploration and production activities under a license or service contract.

Oil reserves (2005-2016)



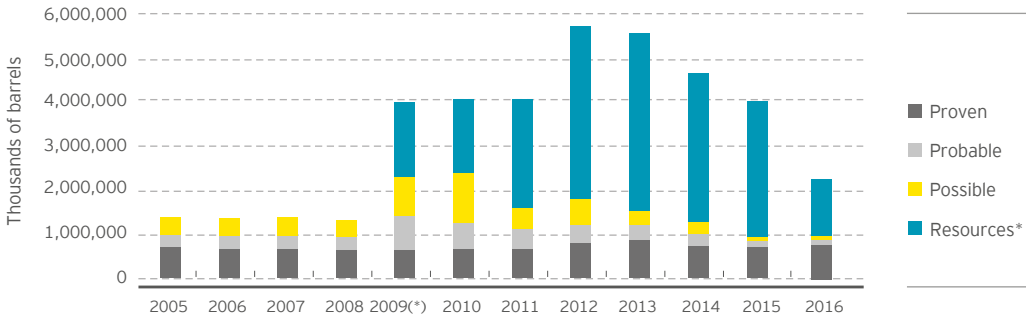
* Includes contingent and prospective resources. Data updated up to December, 2016.
The resources come principally from a reclasification of possible reserves to resources as of 2009
Source: Ministry of Energy and Mines

Natural gas reserves (2005-2016)



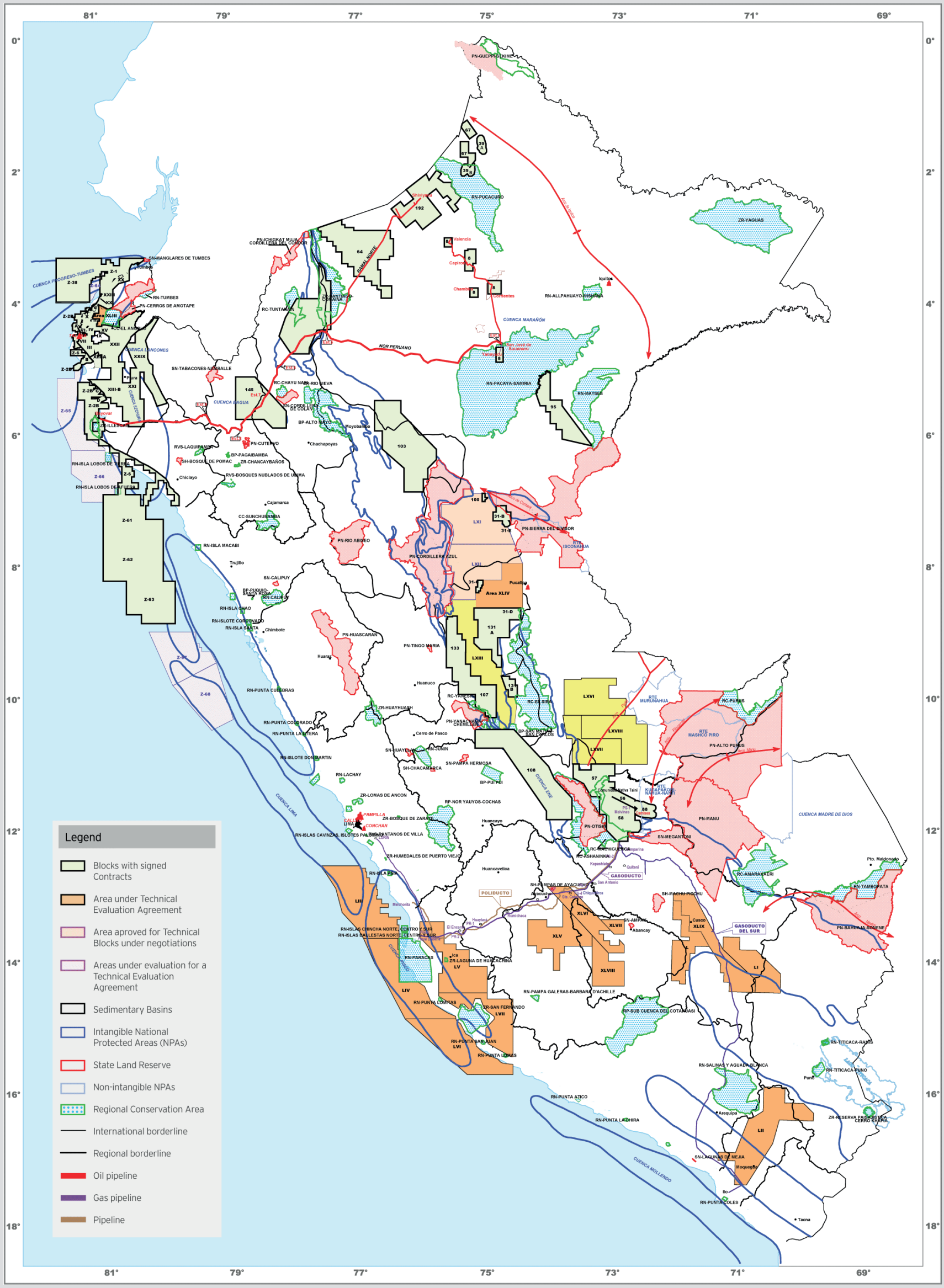
* Includes contingent and prospective resources. Data updated up to December, 2016.
The resources come principally from a reclasification of possible reserves to resources as of 2009
Source: Ministry of Energy and Mine

Natural gas liquids reserves (2005-2016)

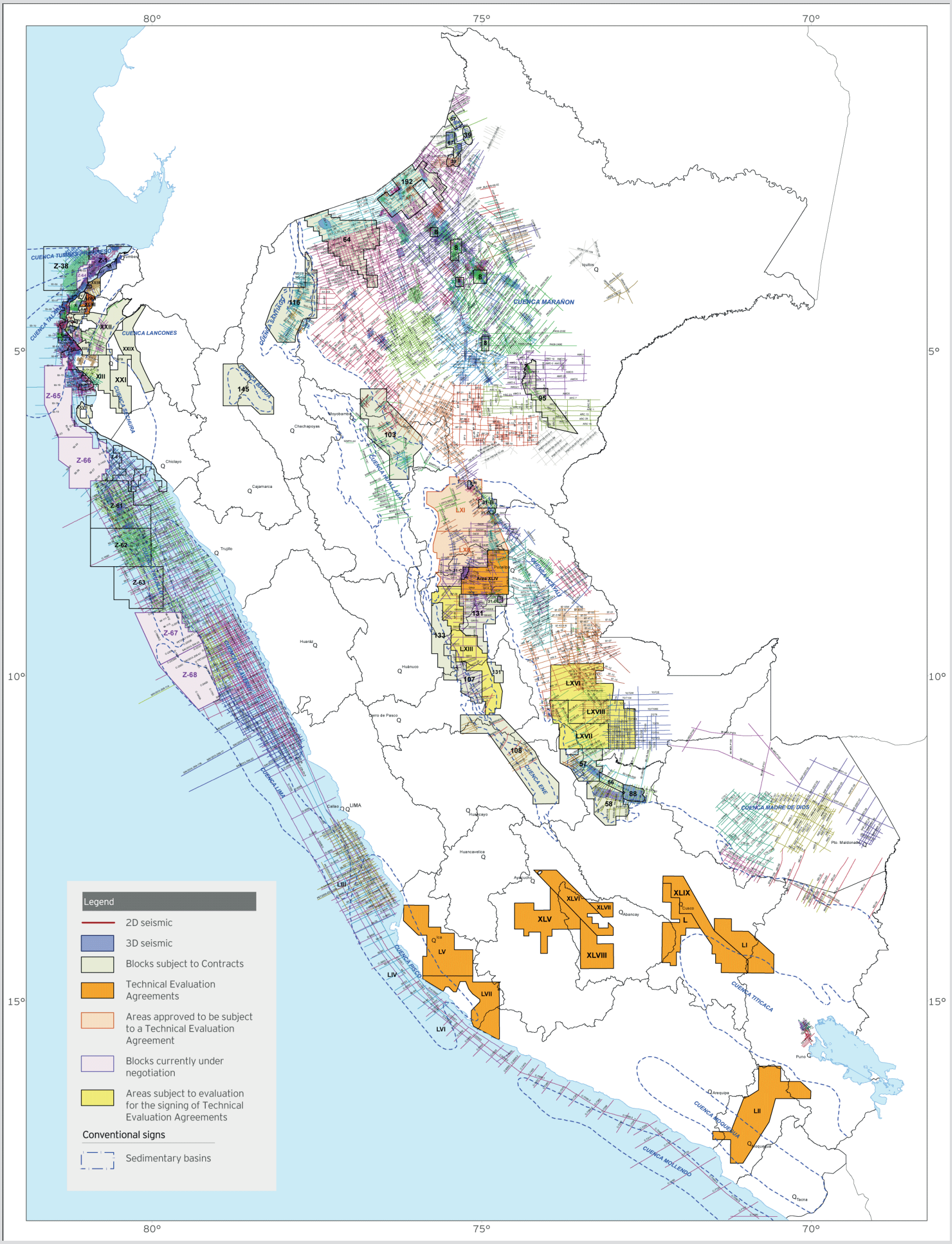


* Includes contingent and prospective resources. Data updated up to December, 2016.
The resources come principally from a reclasification of possible reserves to resources as of 2009
Source: Ministry of Energy and Mines

Peru's blockmanp



Peru's 2D seismic map



Exploitation and exploration contracts (2017)

	Subscribed	Inforce	Investment (US$millions)*
Exploitation	0	26	467.79
Exploration	-	20	17.07
Total	0	46	486.86

* Investment made up to December, 2017

Exploitation contracts

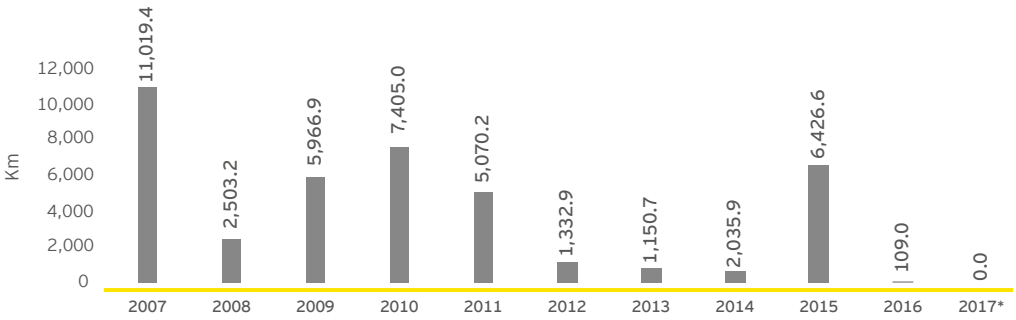
Zone	Operator	Block	Basin	subscription date	Lot area / ha	Effective work area / ha
North Rainforest	Pacific Stratus Energy	192	Marañon	30-Aug-15	512,347.241	2,037.00
	Pluspetrol Norte	8	Marañon	20-May-94	182,348.210	541.00
	Geopark Peru S.A.	64	Marañon	07-Dec-95	761,501.001	66.00
	Perenco	67	Marañon	13-Dec-95	101,931.686	378.00
Central Rainforest	Maple	31B y 31D	Ucayali	30-Mar-94	71,050.000	154.00
	Aguaytia	31-C	Ucayali	30-Mar-94	16,630.000	18.00
	Maple	31-E	Ucayali	06-Mar-01	10,418.934	9.00
	Cepsa	131	Ucayali	21-Nov-07	480,985.304	90.00
South Rainforest	Pluspetrol	56	Ucayali	07-Set-04	58,500.000	64.00
	Pluspetrol	88	Ucayali	09-Dec-00	82,803.521	129.00
	Repsol	57	Ucayali	27-Jan-04	287,102.800	12.00
	CNPC	58	Ucayali	09-Set-05	340,133.717	65.00
North-West	GMP	I	Talara	27-Dec-91	6,943.250	339.00
	Petrolera Monterrico	II	Talara	05-Jan-96	7,691.420	136.00
	Graña y Montero Petrolera	III	Talara	31-Mar-15	35,799.305	227.00
		IV	Talara	31-Mar-15	29,521.990	181.00
	GMP	V	Talara	08-Oct-93	9,026.032	42.00
	SAPET	VI/VII	Talara	22-Oct-93	32,434.113	2,513.00
	UNIPETRO ABC	IX	Talara	16-Jun-15	2,754.133	52.00
	CNPC	X	Talara	20-May-94	46,952.342	2,252.00
	Olympic	XIII	Sechura	30-May-96	263,357.845	29.00
	Petrolera Monterrico	XV	Talara	26-May-98	9,999.772	10.00
	Petrolera Moneterrico	XX	Talara	19-Jan-06	6,124.207	131.00
Continental Shelf	Savia	Z-2B	Talara	16-Nov-93	130,315.659	318.00
	BPZ	Z-1	Tumbes, Talara	30-Nov-01	178,961.384	30,077.00
	Savia	Z-6	Talara, Sechura	20-Mar-02	528,116.614	15,552.00

▸ **Exploration contracts (*continues*)**

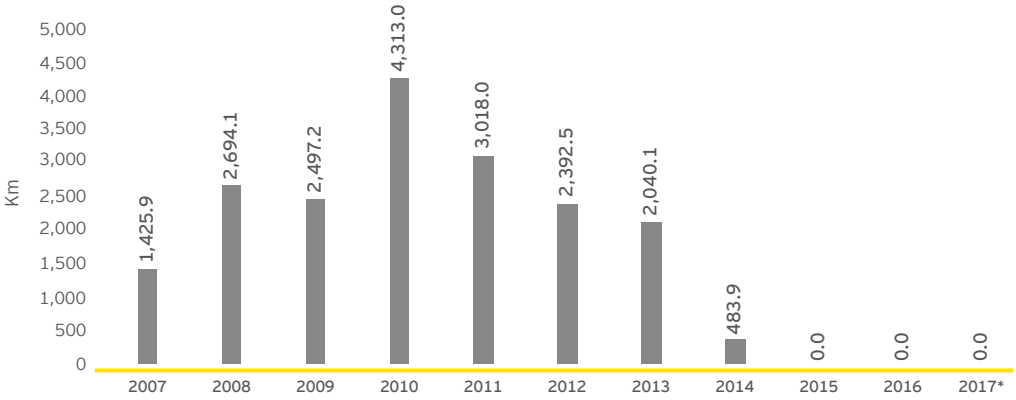
Zone	Operator	Block	Basin	susbcription date	Lot area / ha	Effective work area / ha
North Rainforest	Perenco Peru Limited	39	Marañon	09-Sep-99	79,164.497	119.00
	Gran Tierra Energy	95	Marañon	07-Apr-05	345,281.667	7,509.00
	Pacific Stratus Energy	116	Santiago	12-Dec-06	658,879.677	128.00
	Gran Tierra Energy	123	Marañon	29-Sep-05	940,421.092	171.00
	Gran Tierra Energy	129	Marañon	11-Apr-05	472,433.684	90.00
	Andean Exploration Peru S.A.C.	145	Bagua	16-Apr-09	500,000.004	80.00
Central Rainforest	Compañia Consultora de Petroleo	100	Ucayali	26-Mar-04	7,700.000	40.00
	Talisman	103	Marañon, Huallaga	09-Aug-04	870,896.168	120.00
	Petrolifera Petroleum Peru	107	Ucayali	01-Sep-05	252,232.329	114.00
	Petrolifera Petroleum Peru	133	Huallaga, Ucayali	16-Apr-09	309,309.197	47.00
South Rainforest	Pluspetrol	108	ENE	13-Dec-05	869,105.835	36.00
North-West	Gold Oil Peru	XXI	Sechura	04-May-06	240,755.063	44.00
	Upland oil & gas	XXII	Talara, Sechura	21-Nov-07	369,043.817	66.00
	Upland oil & gas	XXIII	Talara	21-Nov-07	93,198.956	543.00
	Petro Bayovar	XXVII	Sechura	16-Apr-09	49,821.139	144.00
	Ricoil S.A.	XXIX	Lancones	18-Set-15	303,802.343	000.00
Continental Shelf	KEI Peru	Z-38	Tumbes, Talara	12-Apr-17	487.545.511	112,555.00
	Anadarko	Z-61	Trujillo	09-Oct-17	680,519.430	170.00
	Anadarko	Z-62	Trujillo	09-Oct-17	656,356.153	154.00
	Anadarko	Z-63	Trujillo	09-Oct-17	548,049.976	129.00

2D and 3D seismic

Registered 2D seismic, (2007-2017)



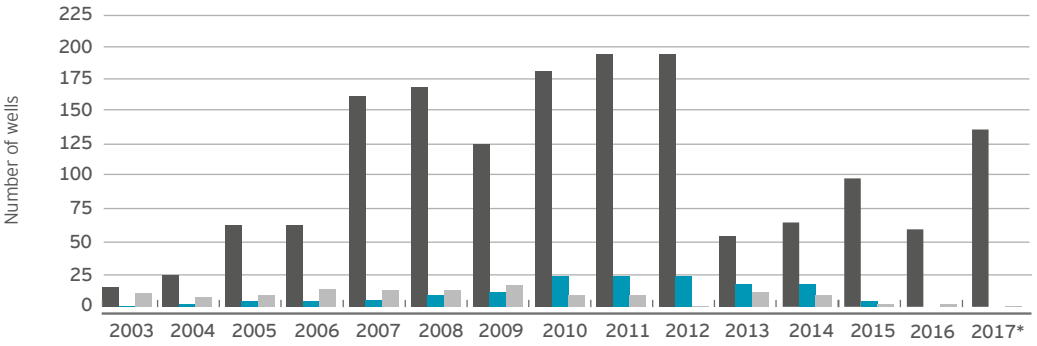
Registered 3D seismic, (2007-2017)



*As of December, 2017
Source: Perupetro

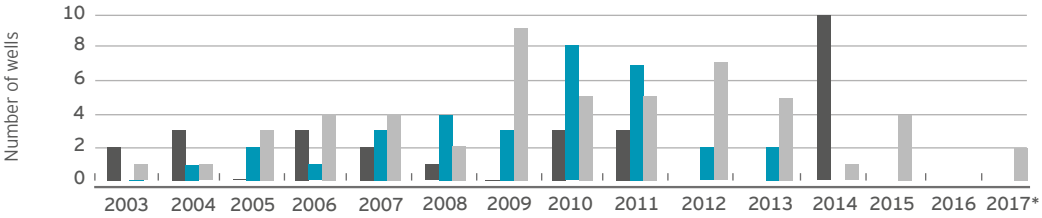
2D and 3D seismic

Development drilling (2003-2017)



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017*
Northwest	16	25	59	65	165	170	128	185	197	177	55	70	76	42	136
Plinth	0	2	3	3	3	6	7	22	23	19	20	23	3	0	0
Jungle	10	7	7	10	9	9	12	7	7	1	10	8	2	2	1
Total	26	34	69	78	177	185	147	214	227	197	85	101	81	44	137

Exploratory drilling (2003-2017)



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017*
Northwest	2	3	0	3	2	1	0	3	3	0	0	11	0	0	0
Plinth	0	1	2	1	3	4	3	1	7	2	2	0	0	0	0
Jungle	1	1	3	4	4	2	9	5	5	7	5	1	4	0	2
Total	3	5	5	8	9	7	12	9	15	9	7	12	4	0	2

*As of December, 2017
Source: Perupetro



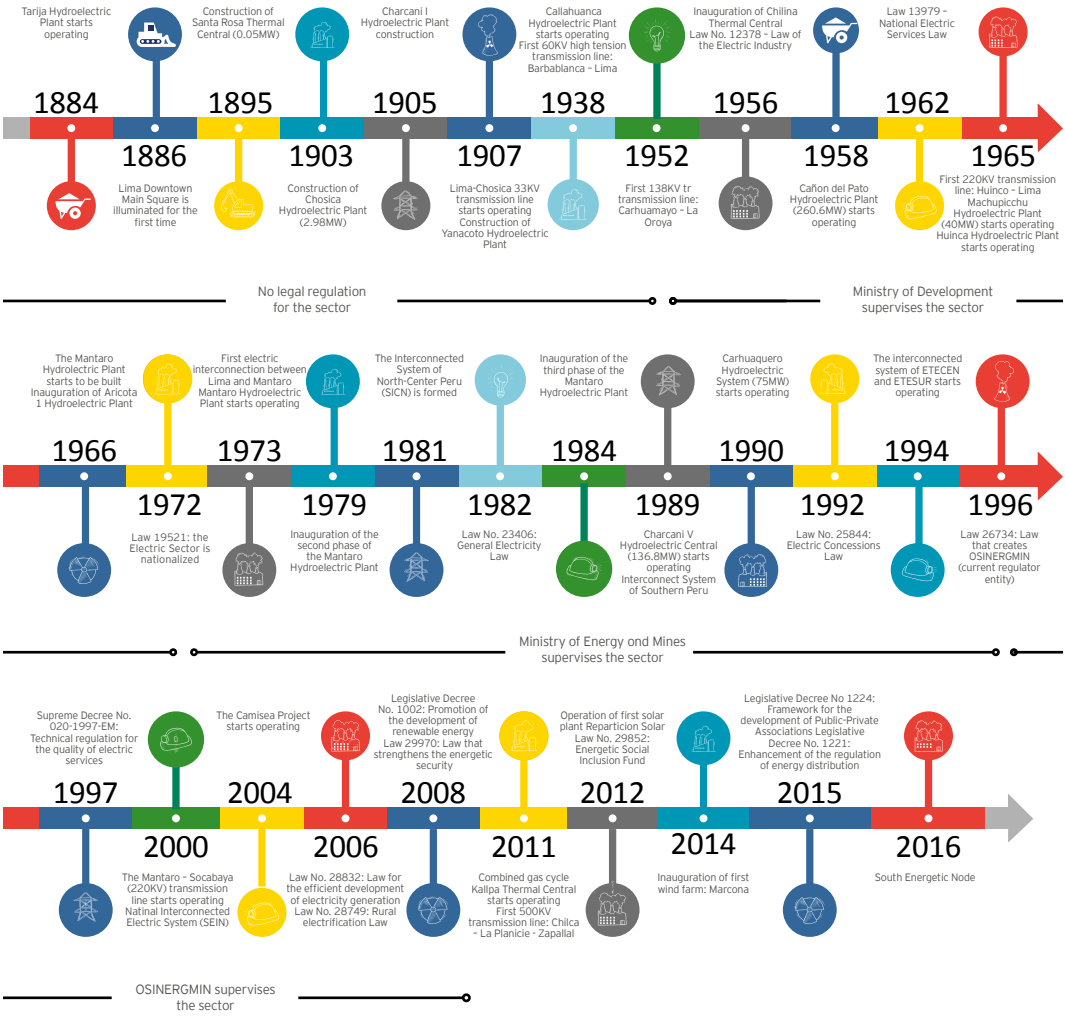
Hydrocarbons in Peru

3 **Secc B** | Gas to Power and other energy sources

01

Importance of the energy sector

Evolution of the electrical market



Source: OSINERGMIN

The Peruvian electricity history demonstrates that since the first time electricity was introduced in Peru - around 1886 - it has dramatically changed to reach the development level that this sector has nowadays.

Prior to year 1970, the electricity sector was developed by a private corporate cluster called "Empresas Eléctricas Asociadas" who operated the public lightning and the public trolley service in Lima. Up to this time, such services were supervised by the Ministry of Development.

In 1970, the electricity sector regulation changed radically as the military government of the Peruvian president Juan Velazco Alvarado entered into force, and was continued by the military government of the Peruvian president Francisco Morales Bermudez.

In such years, the Government managed to nationalize the electrical industry through Law No. 19521 and created the National Electricity Corporation – Electroperu. As of this, Electroperu took all the electricity sector chain activities (generation, transmission and distribution), becoming the new owner of the total assets that were previously used and operated by the cluster called "Empresas Eléctricas Asociadas", but now under the name Electrolima S.A.

Years later, the non-military Government of Fernando Belaunde Terry entered into force. During his regime, in 1982, the Electricity General Law No. 23406 was enacted. Through this Law, the electricity public service remained in services of the National Electricity Corporation, this is, ElectroPeru, but through its regional affiliates.

Under this new scheme, ten regional affiliates were created in order to distribute electricity, aiming to cover the supply needs in the Peruvian territory. Electroperu was the main corporation, considered as the holding corporation and the one in charge of the hydroelectrical power plant of Mantaro, Cañón del Pato, Carhuaquero and Carhua, and also of the north-center transmission grids that were not assigned to the regional affiliates.

Despite the efforts made to enhance the regulation of the electricity sector, in 1990, only 45% of the Peruvian population had access to electricity. In that moment, the electricity supply only covered 74% of the demand, and the distribution losses were equivalent to almost 20% of the electricity.

Later, in 1991, the Government of Alberto Fujimori initiated the restructuring of the regulatory framework of the electricity sector due to the big social and political crisis, and the low scope of the electricity services and infrastructure.

In this regard, as the economic and customs framework had to be modernized, other sectors included modifications to its current regimes in order to guarantee better investment conditions and to promote corporative competitiveness. Under this new context, many national corporations were privatized. This was enforced by means of Legislative Decrees No. 662 and No. 674.

As a result, the electric sector was reformed during the 90s. At this time, the sector was oriented to enhance the supply of electricity through an open market to international commerce. Under this new context, Law No. 25844, Law of Electrical Concessions was enacted in order to attract new private investment to activities that were not successfully being assured for the rendering of electrical services and to end the monopoly that covered the sector.

In this regard, Law No. 25844 stated the conditions in which new agents could participate in the Electrical Sector in each activity of the electrical sector chain (generation, transmission and distribution). The main principles to be applied in the sector were the free entrance and the open access, considering pricing

freedom for the generation and commercialization activities, and regulated prices for transmission and distribution activities.

In connection to the abovementioned, years later, in 1996 and 1997 specific regulatory Laws for the sector were enacted. In 1996, Law No.26734 created the Supervisory Body of Private Investment in Energy and Mines (OSINERGMIN), the regulator entity of the sector to which the Ministry of Promotion functions in electrical matter were transferred; and, in 1997, the Law for the Avoidance of Monopolies and Oligopolies in the electrical Sector was published.

Currently, according to the National Fund for the Finance of the Corporate Activity of the Peruvian Government (FONAFE), the Government still has participation in Companies who develop activities in the electricity sector. However, its participation in this sector is very limited (sixteen corporations located outside the capital) in comparison with the initial years of the sector, as the following chart shows:

Generation activities	Distribution activities
▸ Empresa de Generacion Electrica Machupicchu S.A	▸ Electro Puno S.A.A.
▸ Empresa de Generacion Electrica de Arequipa S.A.	▸ Electrosur S.A.
▸ Empresa de Generacion Electrica del Sur S.A.	▸ Electro Sur Este S.A.A.
▸ Empresa de Generacion Electrica San Gaban S.A.	▸ Electro Ucayali S.A.
▸ Electroperu S.A	▸ Empresa de Administracion de Infraestructura Electrica S.A.
	▸ Empresa de Administracion de Infraestructura Electrica S.A.
	▸ Sociedad Electrica de Arequipa
	▸ Electro Oriente S.A.
	▸ Electrocentro S.A.
	▸ Electronoroeste S.A.
	▸ Electronorte S.A.
	▸ Hidrandina S.A.

Source: National Fund for the Finance of the Corporate Activity of the Peruvian Government – FONAFE / EY

Regarding the specific case of rural electrification, according to Law No. 28749 – Law of Rural Electrification, an important issue to address is the development of systems in isolated and borderline locations in which the lack of electricity makes impossible the development of activities. That's the reason why the participation of the Government in the electrical sector is focused outside the capital. Only in this case is it imperative that the Government assumes a subsidiary role as investor because executing energy projects in these areas is highly expensive.

Nowadays, the private participation in the electrical market is growing more. Many legal dispositions have been enacted to enhance the conditions for the development of the sector considering the new global trends and the needs of the Peruvian population. Considering this, the Government is focusing on the introduction of incentives for attracting investment in clean energies infrastructure in order to increase the offer of energy all around the Peruvian territory.

Investments in the electrical market

According to Peru's Central Bank, 6.8% of the investment to be made in 2018-2019 will be related to energy activities. As of December 31, 2017 there were already 21 announced projects worth USD1, 257 million approximately.

The projects to be developed or continuing to be developed consist of the construction of generation and transmission grids all along the Peruvian territory. The main projects that have been announced are:

- Mantaro Nueva Yanango grid, held by Interconexión Eléctrica S.A.
- Intipampa, held by Engie Energia Peru S.A.
- Wayra 11, held by Grupo Enel.

Another useful indicator that show our attractiveness for investments in the energy sector is the Renewable Energy Country Attractiveness Index (RECAI) developed by EY on the basis of the evaluation of factors that drive market attractiveness in a world where renewable energy has gone beyond decarbonization and reliance on subsidies. This index shows that Peru is the 28th most attractive country for investments in energy in relation to a ranking of 47 countries.

As of October, 2017

				Technology indices scores (out of 100)							
Overall Rank	Previous Rank	Country	RECAI Score	Onshore wind	Offshore wind	Solar PV	Solar CSP	Blomass	Geother-mall	Small hydro	Marine
1	1	China	67.4	51.3	57.0	55.1	40.5	44.4	23.2	41.2	35.5
2	2	India	61.9	49.2	19.0	52.6	38.2	45.3	29.4	39.8	25.5
3	3	United States	61.8	49.8	51.6	46.1	37.6	41.8	43.9	36.0	32.8
4	4	Germany	60.7	45.0	55.3	44.8	16.9	44.4	36.8	29.1	19.5
5	5	Australia	60.5	45.9	32.9	50.2	38.4	34.8	24.9	33.8	33.3
6	8	France	57.2	43.5	39.0	44.4	22.6	45.5	31.8	27.5	37.7
7	7	Japan	56.7	41.3	45.4	43.7	18.0	47.9	45.7	30.4	25.2
8	6	Chile	56.1	43.2	20.2	45.6	35.7	37.7	41.2	36.8	29.0
9	9	Mexico	55.8	42.6	19.5	48.8	25.1	43.4	43.3	30.6	21.6
10	10	United Kingdom	54.6	42.8	57.3	36.6	13.3	46.2	25.7	26.8	38.7
11	12	Argentina	54.1	44.3	20.8	45.4	32.5	37.3	32.3	34.1	19.8
12	11	Canada	53.5	44.6	28.8	41.0	18.5	37.9	20.5	41.7	42.5
13	14	Morocco	53.3	41.2	17.1	45.3	38.4	6.6	13.6	16.9	13.6

				Technology indices scores (out of 100)							
Overall Rank	Previous Rank	Country	RECAI Score	Onshore wind	Offshore wind	Solar PV	Solar CSP	Blomass	Geother-mall	Small hydro	Marine
14	13	Denmark	53.2	43.5	47.3	35.3	17.2	44.2	16.6	18.9	25.6
15	16	Netherlands	52.5	41.6	45.6	36.2	14.2	36.0	25.2	24.1	16.3
16	17	Turkey	52.2	43.4	18.9	42.1	24.6	35.9	40.1	38.3	16.4
17	15	Brazil	52.0	44.2	22.8	43.5	21.5	49.3	14.9	42.9	17.8
18	18	Italy	50.5	39.5	31.3	37.2	30.5	45.6	37.4	39.9	19.6
10	27	Egypt	50.5	42.1	14.1	45.7	39.0	12.8	11.6	14.8	11.6
20	22	Portugal	50.3	34.9	32.0	30.8	25.7	36.9	23.7	30.5	26.7
21	23	Philippines	50.2	39.1	15.6	42.1	18.1	42.9	42.0	39.6	26.3
22	24	Belgium	50.1	40.9	43.6	33.3	13.8	41.0	19.8	22.8	14.2
23	19	South Africa	49.8	39.7	17.8	42.5	37.1	32.8	13.9	29.0	22.9
24	21	Jordan	49.6	37.9	13.6	42.6	29.3	20.9	13.1	16.6	13.1
25	20	Sweden	49.1	42.2	32.2	32.0	14.0	40.0	20.1	35.0	28.7
26	26	Pakistan	48.9	39.2	12.8	42.9	21.4	20.3	18.5	34.5	16.8
27	29	Spain	40.8	39.5	21.9	36.9	24.9	37.4	17.8	26.2	23.1
28	28	Peru	48.5	37.0	14.5	40.2	23.0	32.9	23.6	36.2	18.4
29	33	South Korea	48.2	28.2	29.7	39.9	18.5	32.1	18.9	26.2	39.1
30	25	Israel	48.0	30.9	13.7	43.2	31.7	21.2	14.1	21.6	17.7
31	40	Ireland	47.6	41.8	26.7	31.9	13.6	31.5	22.6	25.1	29.1
32	30	Finland	47.5	43.8	41.2	24.3	14.5	48.1	16.9	27.8	14.5
33	32	Greece	47.4	37.4	24.1	37.1	28.7	18.8	22.3	25.5	12.8
34	31	Thailand	47.1	34.9	15.0	38.6	21.7	40.4	16.1	27.3	17.6
3S	36	Uruguay	46.1	39.0	16.6	36.1	17.6	34.9	14.2	23.5	18.2
36	-	Vietnam	45.7	36.8	20.8	36.5	16.7	38.9	16.7	34.4	17.1
37	35	Kenya	45.7	37.3	13.7	38.9	21.6	27.1	45.9	30.5	11.7
38	-	Algeria	45.6	33.5	14.2	42.8	32.9	17.3	11.2	17.7	11.2
39	39	Dominican Republic	45.5	34.6	14.1	37.6	19.0	20.0	14.4	31.6	12.8
40	37	Kazakhstan	45.4	36.4	12.7	38.8	16.6	13.4	12.2	25.6	12.2

Source: EY

The results are quite encouraging considering that it was not until 2008 that the promotion of a regulatory policy on renewable energies began in Peru.

Government take in the electrical market

Fiscal revenues of the Electricity Sector

The Electricity Sector generates an important amount of fiscal revenues regarding the general applicable taxes to all corporations (Income Tax and Value Added Tax), despite of the special rules applicable to the sector for promoting the investments. The following chart shows the revenues obtained by the Tax Authority for Electricity Generation in the recent years, and the percentage that represents in relation to the total fiscal revenues of a year.

	Fiscal revenues 2006 - 2017 (in millions of Soles)											
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Income Tax	397	541	680	691	706	701	949	1,039	1,113	1,281	1,339	1,191
VAT	658.7	659.4	688.2	753.9	711.1	795.3	964.1	947.1	1016.2	1217.2	1273.6	1421.4
	1,056	1,201	1,368	1,445	1,417	1,497	1,914	1,986	2,129	2,498	2,613	2,612

Source: SUNAT/EY

	Level of participation in the total fiscal revenues 2006 - 2017 (in percentage)											
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Income Tax	4.0%	4.1%	4.6%	6.5%	4.8%	3.6%	4.6%	5.3%	6.0%	7.6%	8.1%	7.7%
VAT	5.5%	4.9%	4.4%	4.4%	3.6%	3.6%	3.9%	3.5%	3.5%	4.0%	4.1%	4.4%

Source: SUNAT/EY

Special contributions

OSINERGMIN Contribution

This contribution is applicable to generation, transmission and distribution concessionaries of the electricity sector, and it should be paid to the Supervisory Body of Private Investment in Energy and Mines (OSINERGMIN). The rate of this contribution is 0.52 % for 2017, 0.51% for 2018 and 0.50% for 2019, applied on their monthly billing after deducting VAT.

	2014 (S/)	2015 (S/)	2016 (S/)	2017 (S/)
OSINERGMIN Contribution paid by corporations of the electricity sector	89'394,684	102'650,080	121'522,316	121'951,581
Total OSINERGMIN Contribution (Mining, hydrocarbons and electricity companies)	339'614,764	307'408,959	331'412,821	368'314,166

Source: OSINERGMIN

OEFA Contribution

This contribution is applicable to generation, transmission and distribution concessionaries of the electricity sector, and it should be paid to the Enviromental Audit and Evaluation Agency (OEFA). The rate of this contribution for years 2017-2019 is 0.11 % applied on their monthly billing after deducting VAT.

	2014 (S/)	2015 (S/)	2016 (S/)	2017 (S/)
OEFA Contribution paid by corporations of the electricity sector	17'686,596	22'376,732	24'789,071	25'518,251
Total OEFA Contribution	109'605,747	118'661,293	133'041,398	142'090,247

Source: Integrated System of Financial Management – SIAF

Hydroenergetic Canon revenue

The Hydroenergetic Canon is a portion of the income earned by the Government for the payments made by corporations regarding the utilization of hydric resources in electricity generation activities. The beneficiaries of this Canon are the Local and Regional Governments, and this kind of canon is equivalent to 50% of the Corporate Income Tax paid by corporations that are holders of concessions in which hydric resources are used.

The following chart shows the amount of revenues obtained by Hydroenergetic Canon that is distributed to Local and Regional Governments:

	2014 (S/)	2015 (S/)	2016 (S/)	2017* (S/)
Transfers to Regional Governments	50'513,894	54'435,507	51'075,503	33'802,592
Transfers to Local Governments	151'541,684	163'302,496	153'208,597	101,429,714

*As of September, 2017.
Source: Consultation of transfers to the National, Regional and Local Goverments - MEF

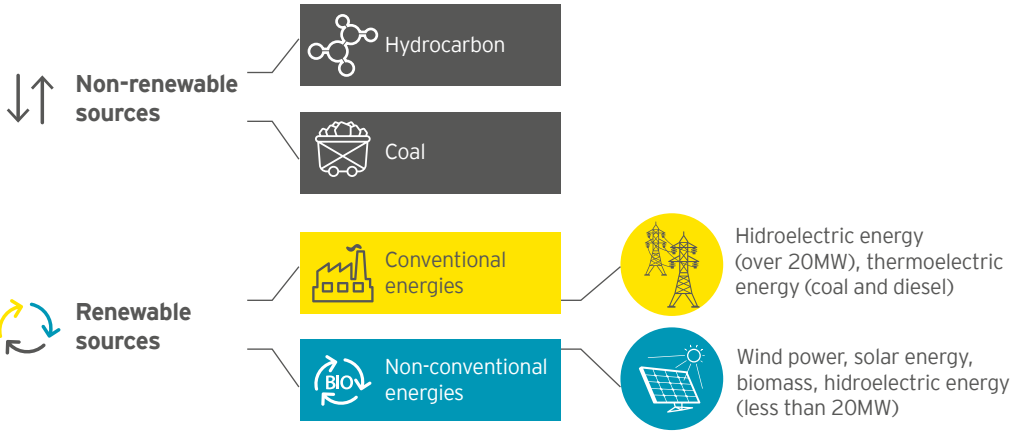
02

Energy production and exports

Energy supply

With the development of economy, energy needs have increased. As this relationship between the development of economy and the use of energy is a direct one, through the years, the Government has put effort into trying to connect every area of Peru to a stable source of energy. In this sense, energy has become one of the main issues when elaborating National Policies on the economy and social issues.

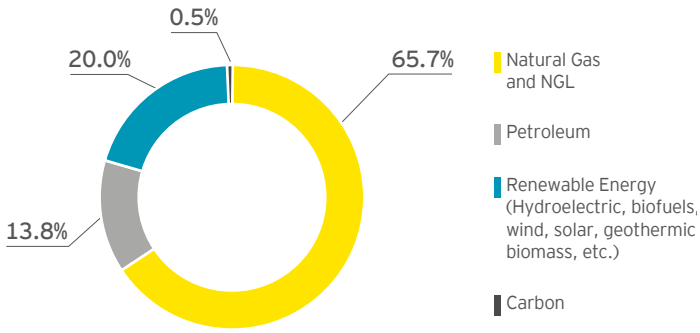
Currently, energy offered by corporations in the energy business can be classified according to the following:



In the recent years, a new global trend in clean energy has emerged, which makes possible the increase in electrical generation based in renewable sources. However, it is still not the most important source of energy in the Peruvian production of the electrical market. The production of energy using these new kind of energies is expected to increase in the following years as our energy matrix will tend to become a diversified one.

According to the report developed by the National Society of Mining, Petroleum and Energy (SNMPE) and the Economic Operation Committee of the National Interconnected System (COES), the energy produced during 2017 was mostly based on hydric sources, being followed by energy produced by gas (thermoelectric energy). Just a little energy has been being produced on wind and solar plants (renewable sources).

Production estructure (2017)



Source: SNMPE

Annual production of electrical generation power stations of COES (GWh), accumulated to december 2017

Plants	2017	2016	Variation	
			Energy	%
Hydroelectric	26 739.54	22 155.88	4 583.66	20.69%
Thermoelectric	19 774.81	23 883.16	-4 108.35	-17,20%
Renewable	2 478.90	2 287.37	191.53	8,37%
Total	48 993.25	48 326.42	666.83	1,38%

Source: COES

Despite that fact, we must point out that the promotion of investment in the energy sector has been established as a national priority in the past years and corporations have introduced new technologies for efficient processes, and as a result the generation of energy has increased year by year.

As an example of this, in 2012, the energy produced in Peru reached 37'617,577.57MWh, while five years later, in 2017, the energy produced was about 49'570,266.34MWh.

	2012	2013	2014	2015	2016	2017
MWh	37'617,578	39'916,920	42'050,519	44'786,562	48'587,388	49'570,266

Source: COES/EY

Electricity demand

The demand of the electricity sector is split in three groups: the Interconnected Electrical National System (SEIN), the Isolated Systems, and self-producers. Between these demanding groups, two classes of consumers are identified: free users and regulated users.

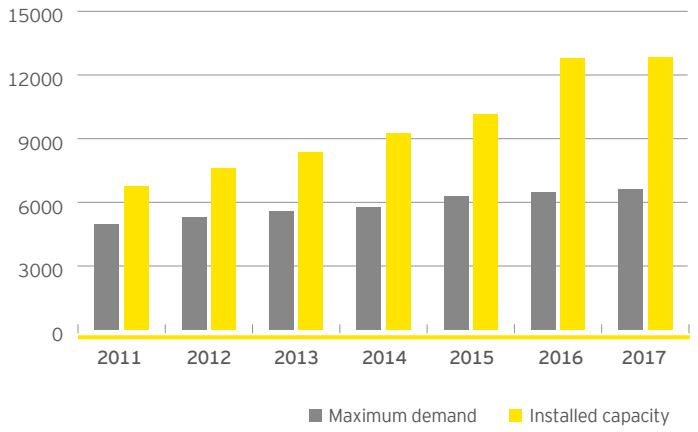
Free users are the electricity users who are not subject to pricing regulations in regards to the electricity and power that they use. This category of users has a sub-category of "great users", which consists of the users that have signed contracts to obtain power of 10MW or more. This class of users have negotiation capacity in order to set prices along with their supplier, which can be a distributor or a generation corporation of the SEIN.

On the other hand, the regulated users group consists of users who are subject to pre-established prices (i.e. bar prices) with no negotiation capacity when contracting with energy suppliers. The Supervisory Body of Private Investment in Energy and Mines (OSINERGMIN) is the entity responsible for setting the prices for these kind of users.

The energy demanded by all users always increases month by month. The demand in the prior months that were registered by the COES are the following:

	Minimum demand (Mw)	Average demand (Mw)	Maximum demand (Mw)
February 2018	4 782,692	6 617,315	6 576,968
January 2018	5 093,406	6 576,545	6 489,035
December 2017	4 717,506	6 413,413	6 462,403
November 2017	5 042,870	6 333,720	6 425,457
October 2017	4 497,970	6 147,494	6 341,241

Source: COES/EY



Source: COES/EY

Nevertheless, regarding the users' needs, it is said that the Peruvian market has an "oversupply of energy" because a gap between installed capacity and consumption is reported. This means that the energy reserve margin has gone from 30% during 2011 to almost 50% in 2015, reaching more than 50% in 2017.

However, it is important to bear in mind that some experts of the industry attribute this "oversupply of energy" to external factors of the Peruvian electric market, not connected with the real necessity of energy in the country. To this regard, some of the reasons given to explain this "oversupply of energy" are the following:

- The large amount of projects of energy generation that have been awarded in the past, now under operation, as cause of the generated electricity that has no way out into the market as its amount exceeds the capacity of transmission grids.
- Electricity generation companies pointed out that there are lots of energy generators operating in the market, so the need to sale the produced energy leads to a price war. Because of this, prices offered –most of the time- get so low that they become unsustainable for the costs structure of the generators, distorting the natural energy market.
- According to other specialists of the sector, the sudden suspension of new big projects due to the economic slowdown and political factors create bottlenecks in the country between investments in energy projected for big demands, and the growth not realized in energy demand that remained at a similar level. New big projects would increase the energy demand.
- Others argue as an important issue regarding the Peruvian demand of energy, the presence of clandestine users. Such kind of users does not allow for a reliable measurement of the energy demand as they cannot be observed in plain sight by regulators.

Moreover, for experts as Edwin Quintanilla – former Vice Minister of Energy and Mines of Peru-, this "oversupply of energy" is logical and common in systems of electrical generation, as there is always an additional reserve (to face a drought, an incident in the gas pipeline, maintenance or failure of a power plant, among others), since the supply must be continuous and sustained. Therefore, the expert explains that there is always a reservation on numbers that the Ministry of Energy and Mines (MINEM) estimates.

Countries of the South American Region such as Chile have

reserves of almost 90% in its central interconnected system, Ecuador 50%, and Colombia 60%, which confirms that they are required reserves to address the main risks.

Thus, from the point of view of this expert, the energy reserve margin is not an indicator of "oversupply of energy" in an economic and literal sense because the country still has an energy need to be covered. External factors of the electrical market contribute to accumulated energy reserves that in the end are a good problem because energy reserve margins show the high growth market and its externalities.

Infrastructure of the electric market

Many projects of energy generation and energy transmission grids have been developed in the last decade due to the guarantees and conditions stated in legal dispositions.

According to our legal framework, the authorization to develop energy related activities can be awarded by means of the following alternatives:

Award of a ProInversion project

ProInversion (Peruvian investment agency in charge of the promotion of business opportunities) is authorized to award pre-designed projects (via concessions) related to generation, transmission and distribution of energy. This entity is also entitled to evaluate and award private initiative projects regarding the activities developed in the electricity sector according to the applicable laws.

Grant of a MINEM concession

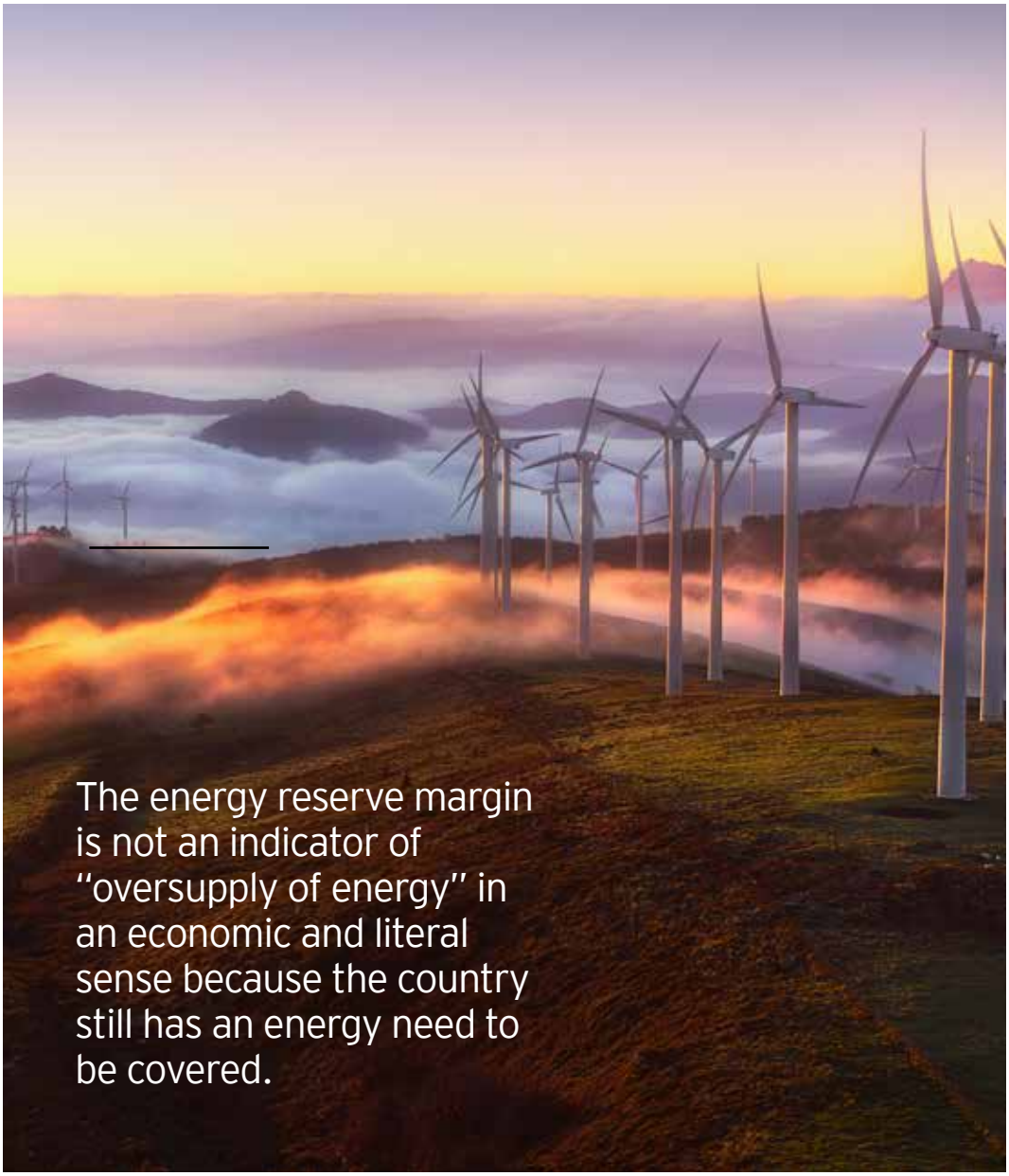
This entity (Ministry of Energy and Mines - MINEM) is authorized to award definitive and temporal concessions once the requests of the interested corporations are duly evaluated according to the requirements stated in the Electric Concessions Law. This entity also develops the conditions and requirements to be considered in the Supervisory Body of Private Investment in Energy and Mines (OSINERGMIN) auctions for generation of electricity based on renewable energies.

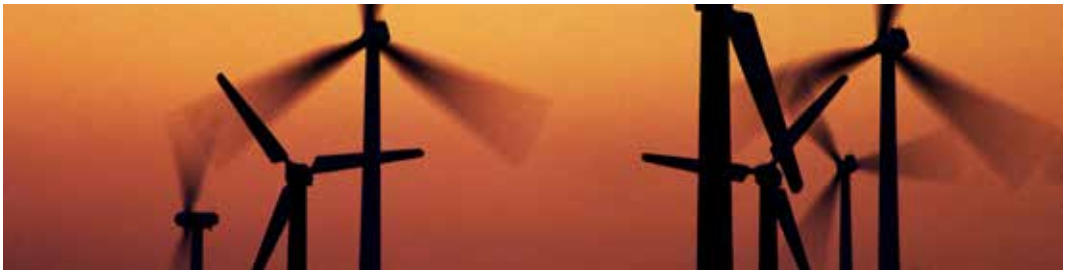
Authorization through OSINERGMIN auction

This kind of concession award is only applicable to generation of electricity based on renewable energies in the terms of Legislative Decree No. 1002. The auction is on the energy quota to be established by the Ministry of Energy and Mines (MINEM). For this purpose, interested corporations propose a determined amount of energy (MWh) and its associated price (USD/MWh). The awards are given to the corporations that proposed the lowest prices until covering the energy quota. By the end of 2017, the Supervisory Body of Private Investment in Energy and Mines (OSINERGMIN) had already hosted four auctions.

Regarding generation activities, up to 2017, 20 thermoelectric plants, 32 hydroelectric plants, and 29 plants with renewable energy are operating in the country. In addition, 34 total definitive concessions were granted (16 hydroelectric plants and 18 with renewable energy), and they are still in project phase.

On the other hand, up to February 2018, Peruvian Goverment records 16 temporal concessions to carry out Feasibility Studies related to hydraulic plants (8), wind farms (4), and solar plants (2).


The energy reserve margin is not an indicator of "oversupply of energy" in an economic and literal sense because the country still has an energy need to be covered.



GENERATION ACTIVITIES DEVELOPED UNDER AUTHORIZATIONS					
No.	Plant Name	Concession Holder	Installed Capacity (MW)	Location	Investment Amount (in millions of US$)
OPERATING PLANTS - THERMOELECTRIC PLANTS (GAS TO POWER)					
1	C.T. C.C. KALLPA IV	KALLPA GENERACION S.A.	873.9	LIMA	395
2	C.T. C.C. CHILCA 1	ENERSUR	862.2	LIMA	374
3	C.T. SANTO DOMINGO DE LOS OLLEROS	TERMOCHILCA S.A.C.	197.6	LIMA	128.5
4	C.T. LAGUNAS NORTE	MINERA BARRICK MISQUICHILCA S.A.	12.78	LA LIBERTAD	640
5	C.T. TABLAZO	SUDAMERICANA DE ENERGIA DE PIURA	30	PIURA	22.5
6	C.T. DE COGENERACION HUACHIPA	ILLAPU ENERGY S.A.	13.6	LIMA	14
7	C.T. RECKA	SOCIEDAD MINERA CERRO VERDE S.A.A.	181.3	LAMBAYEQUE	102.53
8	C.T. PUERTO CALLAO	APM TERMINALS CALLAO S.A.	0.875	LIMA	1.69
9	C.T. CHILCA 2	ENRESUR	75.4 (simple cycle) 112.8 (combined cycle)	LIMA	140
10	C.T. MALACAS	ENEL GENERACION PIURA	52.8	PIURA	55
11	C.T. IQUITOS NUEVA	GENRENT DEL PERU S.A.C.	77.7	LORETO	108.7

Source: MINEM

GENERATION ACTIVITIES DEVELOPED UNDER CONCESSION AND COLD RESERVE CONTRACTS					
No.	Plant Name	Concession Holder	Installed Capacity (MW)	Location	Investment Amount (in millions of US$)
OPERATING PLANTS - THERMOELECTRIC PLANTS (GAS TO POWER)					
1	C.T. PLANTA ILO	TERMOSUR	564	MOQUEGUA	220.4
2	C.T. MALACAS	EEPSA	200	PIURA	106.4
3	C.T. CICLO COMBINADO CHILCA (FENIX)	FENIX POWER PERU	534.3	LIMA	857
4	C.T. PLANTA ETEN	PLANTA DE RESERVA FRIA DE GENERACION ETEN S.A.	240.5	LAMBAYEQUE	145
5	C.T. PUERTO BRAVO	SAMAY I S.A.	720	AREQUIPA	390
6	C.T. PLANTA PUCALLPA	INFRAESTRUCTURAS Y ENERGIAS DEL PERU S.A.C.	45.63	UCAYALI	23.8
7	C.T. PUERTO MALDONADO	INFRAESTRUCTURAS Y ENERGIAS DEL PERU S.A.C.	20.08	MADRE DE DIOS	9.27
8	C.T. ILO 4	ENERSUR	3X236.67	MOQUEGUA	432.4
9	C.T. IQUITOS NUEVA	GENRENT DEL PERU S.A.C.	77.7	LORETO	108.7

Source: MINEM

GENERATION ACTIVITIES UNDER DEFINITIVE CONCESSIONS				
No.	Plant Name	Concession Holder	Installed Capacity (MW)	Location
OPERATING PLANTS - HYDROELECTRIC PLANTS				
1	CH ARICOTA I	EGESUR S.A.	23.8	TACNA
2	CH ARICOTA II	EGESUR S.A.	11.9	TACNA
3	CH CAHUA	STATKRAFT PERU S.A.	39.6	LIMA AND ANCASH
4	CH CALLAHUANCA	ENEL GENERACION PERU S.A.A.	80.7	LIMA
5	CH CAÑON DEL PATO	ORAZUL ENERGY EGENOR	256.55	ANCASH
6	CH CARHUAQUERO	ORAZUL ENERGY EGENOR	95.0	CAJAMARCA
7	CH CERRO DEL AGUILA	CERRO DEL AGUILA S.A.	525.0	HUANCAVELICA
8	CH CURUMUY	SINDICATO ENERGETICO S.A. - SINERSA (before: Guicon S.A.)	12.0	PIURA
9	CH CHAGLLA	EMPRESA DE GENERACION HUALLAGA S.A.	456.0	HUANUCO
10	CH CHEVES	STATKRAFT PERU S.A. (before: Empresa de Generacion Electrica Cheves S.A. EGECHEVES)	168.2	LIMA
11	CH G1 EL PLATANAL	COMPAÑIA ELECTRICA EL PLATANAL S.A. (before: Cementos Lima S.A.)	220.0	LIMA
12	CH CHARCANI IV	EGASA	14.4	AREQUIPA
13	CH CHARCANI V	EGASA	135.0	AREQUIPA
14	CH CHIMAY	CHINANGO S.A.C.	149.0	JUNIN
15	CH GALLITO CIEGO	STATKRAFT PERU S.A. (before: Cementos Pacasmayo, Cahua S.A.)	34.0	CAJAMARCA
16	CH HUANZA	EMPRESA DE GENERACION HUANZA S.A. - EMGHUANZA	90.6	LIMA
17	CH HUAMPANI	ENEL GENERACION PERU S.A.A.	31.36	LIMA
18	CH HUINCO	ENEL GENERACION PERU S.A.A.	258.4	LIMA
19	CH MACHUPICCHU	EGEM S.A.	91.4	CUSCO
20	CH MALPASO	STATKRAFT PERU S.A. (before: Centromin Peru S.A., Electroandes S.A.)	54.4	JUNIN AND PASCO
21	CH MANTARO (SANTIAGO ANTUNEZ DE MAYOLO)	ELECTROPERU S.A.	798.0	HUANCAVELICA, JUNIN AND PASCO
22	CH MARAÑON	HIDROELECTRICA MARAÑON S.R.L.	18.4	HUANUCO
23	CH MATUCANA	ENEL GENERACIO N PERU S.A.A.	120.0	LIMA
24	CH MOYOPAMPA	ENEL GENERACION PERU S.A.A.	63.0	LIMA

GENERATION ACTIVITIES UNDER DEFINITIVE CONCESSIONS				
No.	Plant Name	Concession Holder	Installed Capacity (MW)	Location
OPERATING PLANTS - HYDROELECTRIC PLANTS				
25	CH PACHACHACA	STATKRAFT PERU S.A.	12,0(3)	JUNIN
26	CH RESTITUCION	ELECTROPERU S.A.	210.4	HUANCAVELICA
27	CH SAN GABAN II	EMPRESA DE GENERACION ELECTRICA SAN GABAN S.A.	110.0	PUNO
28	CH SANTA TERESA	LUZ DEL SUR S.A.A. (before: EGEMSA)	98.1	CUSCO
29	CH YANANGO	CHINANGO S.A.C. (before: Compañia Minera San Ignacio de Morococha S.A.)	40.5	JUNIN
30	CH YAUPI	STATKRAFT PERU S.A.	108.0	JUNIN AND PASCO
31	CH YUNCAN	ENGIE ENERGIA PERU S.A. (before: EGECEN S.A., ENERSUR S.A.)	130.0	PASCO
32	CH QUITARACSA I	ENGIE ENERGIA PERU S.A. (before: ENERSUR S.A.)	112.0	ANCASH

Source: MINEM

GENERATION ACTIVITIES UNDER DEFINITIVE CONCESSIONS				
Nº	Plant Name	Concession Holder	Installed Capacity (MW)	Location
OPERATING PLANTS - WITH RENEWABLE ENERGETIC SOURCES (RER)				
HYDROELECTRIC PLANTS				
1	CH CAÑA BRAVA	ORAZUL ENERGY EGENOR	5.7	CAJAMARCA
2	CH CARPAPATA III	GENERACION ELECTRICA ATOCONGO S.A.	12.80	JUNIN
3	CH CHANCAY	SINDICATO ENERGETICO	19.20	LIMA
4	CH HUANCHOR	HIDROELECTRICA HUANCHOR S.A.C	16.2	LIMA
5	CH LA JOYA	GENERADORA DE ENERGIA DEL PERU S.A.	9.6	AREQUIPA
6	CH RUCUY	EMPRESA DE GENERACION ELECTRICA RIO BAÑOS S.A.C.	20.00	LIMA
7	CH SANTA CRUZ I	HIDROELECTRICA SANTA CRUZ S.A.C.	5.90	ANCASH
8	CH SANTA CRUZ II	HIDROELECTRICA SANTA CRUZ S.A.C.	6.0	ANCASH
9	CH QUANDA	ADINELSA	2.76	CAJAMARCA
10	CH YANAPAMPA	ELECTRICA YANAPAMPA S.A.C.	4.12	ANCASH

GENERATION ACTIVITIES UNDER DEFINITIVE CONCESSIONS				
Nº	Plant Name	Concession Holder	Installed Capacity (MW)	Location
OPERATING PLANTS - WITH RENEWABLE ENERGETIC SOURCES (RER)				
11	CH PIAS 1	CONSORCIO MINERO HORIZONTE S.A. (before: Aguas y Energia Peru S.A.)	12.6	LA LIBERTAD
12	CH POECHOS I	SINDICATO ENERGETICO S.A. - SINERSA	15.4	PIURA
13	CH POECHOS II	SINDICATO ENERGETICO S.A. - SINERSA	10.0	PIURA
14	CH LAS PIZARRAS	EMPRESA ELECTRICA RIO DOBLE S.A. (before: ABR Ingenieros S.A.C.)	18.8	CAJAMARCA
15	CH RUNATULLO III	EMPRESA DE GENERACION ELECTRICA DE JUNIN S.A.C.	20.0	JUNIN
16	CH RUNATULLO II	EMPRESA DE GENERACION ELECTRICA DE JUNIN S.A.C.	19.1	JUNIN
17	CH POTRERO	EMPRESA ELECTRICA AGUA AZUL S.A.	19.9	CAJAMARCA
BIOMASS THERMAL PLANTS				
18	CTB PARAMONGA 1	AGRO INDUSTRIAL PARAMONGA S.A.A.	23	LIMA
19	CTB CAÑA BRAVA	BIOENERGIA DEL CHIRA S.A.	12.0	PIURA
20	CTB MAPLE ETANOL	AGROPECUARIA AURORA S.A.C. (before: Maple Etanol S.R.L.)	37.52	PIURA
SOLAR PLANTS				
21	CS MAJES SOLAR 20T	GTS MAJES S.A.C.	20.0	AREQUIPA
22	CS TACNA SOLAR 20TS	TACNA SOLAR S.A.C.	20.0	TACNA
23	CS PANAMERICANA SOLAR 20 TS	PANAMERICANA SOLAR S.A.C.	20.0	MOQUEGUA
24	CS REPARTICION SOLAR 20T	GTS REPARTICION S.A.C.	20.0	AREQUIPA
25	CS MOQUEGUA FV	MOQUEGUA FV S.A.C.	16.0	MOQUEGUA
WIND FARMS				
26	CE PARQUE EOLICO MARCONA	PARQUE EOLICO MARCONA S.R.L.	32.0	ICA
27	CE TALARA	ENERGIA EOLICA S.A.	30.0	PIURA
28	CE CUPISNIQUE	ENERGIA EOLICA S.A.	80.0	LA LIBERTAD
29	CE PARQUE EOLICO TRES HERMANAS	PARQUE EOLICO TRES HERMANAS S.A.C.	97.15	ICA

Source: MINEM

GENERATION ACTIVITIES UNDER DEFINITIVE CONCESSIONS (PROJECTS)					
No.	Plant Name	Concession Holder	Installed Capacity (MW)	Location	Investment Amount (in millions of US$)
HYDROELECTRIC PLANT					
1	CH TARUCANI	TARUCANI GENERATING COMPANY SA	49.0	AREQUIPA	70.9
2	CH LA VIRGEN	LA VIRGEN SAC	84.0	JUNIN	165.7
3	CH CENTAURO I Y III	CORPORACION MINERA DEL PERU SA CORMIPESA	12,5 (1st. phase) 12,5 (2nd. phase)	ANCASH	4.1
4	CH TULUMAYO IV	EGEJUNIN TULUMAYO - IV SAC	56.2	JUNIN	105.2
5	CH MOLLOCO	GENERADORA ELECTRICA MOLLOCO SAC - GEMSAC	302.1	AREQUIPA	619.7
6	CURIBAMBA	ENEL GENERACION PERU SAC	192.0	JUNIN	577.38
7	OLMOS 1	SINDICATO ENERGETICO SA	51.0	LAMBAYEQUE AND PIURA	91.38
8	CH CATIVEN I y II	COMPAÑIA MINERA PODEROSA SA	29.0	LA LIBERTAD	68.6
9	CH PUCARA	EMPRESA DE GENERACION HIDROELECTRICA DEL CUZCO - EGECUSCO	130.0	CUZCO	149.8
10	CH VERACRUZ	COMPAÑIA ENERGETICA VERACRUZ SAC	730.0	AMAZONAS AND CAJAMARCA	1 443,76
11	SAN GABAN III	HYDRO GLOBAL PERU SAC	205.8	PUNO	329.54
12	CH TULUMAYO V	EGEJUNIN TULUMAYO - V SAC	83.2	JUNIN	158.1
13	CH BELO HORIZONTE	COMPAÑIA ENERGETICA DEL CENTRO SAC	180.0	HUANUCO	679.8
14	CH CHADIN 2	AC ENERGIA SA	600.0	AMAZONAS AND CAJAMARCA	2 023,0
15	CC.HH. TINGO I, II y III	ENERGORET SAC	406.0	AMAZONAS	694.49
16	CH SANTA TERESA (Power boost)	LUZ DEL SUR SAA	(5) 40,4	CUSCO	104.53

Source: MINEM

GENERATION ACTIVITIES UNDER DEFINITIVE CONCESSIONS (PROJECTS)					
No.	Plant Name	Concession Holder	Installed Capacity (MW)	Location	Investment Amount (in millions of US$)
WITH RENEWABLE ENERGETIC SOURCES (RER)					
HYDROELECTRIC PLANTS					
1	CH ANGEL II	GENERADORA DE ENERGIA DEL PERU S.A.	19.95	PUNO	24.24
2	CH ANGEL III	GENERADORA DE ENERGIA DEL PERU S.A.	19.95	PUNO	27.22
3	CH ANGEL I	GENERADORA DE ENERGIA DEL PERU S.A.	19.95	PUNO	25.6
4	CH SANTA LORENZA I	EMPRESA DE GENERACION ELECTRICA SANTA LORENZA S.A.C.	18.7	HUANUCO	38.7
5	CS INTIPAMPA	ENGIE ENERGIA PERU S.A.	40	MOQUEGUA	57.5
6	CH 8 DE AGOSTO	GENERACION ANDINA S.A.C.	19.00	HUANUCO	39.30
7	CH KARPA	HIDROELECTRICA KARPA S.A.C.	20.00	HUANUCO	34.0
8	CH HER	EDEGEL S.A.A.	0.7	LIMA	3.00
9	CH CARHUAC	ANDEAN POWER S.A.	20.00	LIMA	29.88
10	CH ZAÑA	ELECTRO ZAÑA S.A.C.	13.2	CAJAMARCA	22.6
11	CH PALLCA	CARBON LATAM PERU S.A.C. (before: Andean Power S.A.)	10.10	LIMA	23.52
12	CH MANTA	PERUANA DE INVERSIONES EN ENERGIAS RENOVABLES S.A.C.	18.44	ANCASH	18.40
13	CH MAMACOCHA	CH MAMACOCHA S.R.L (before: CH Laguna Azul)	20.00	AREQUIPA	58.82
14	CH COELVIHIDRO II	CONSORCIO ELECTRICA DE VILLACURI S.A.C.	15.00	LIMA	17.68
15	CH COLA I	HIDROELECTRICA COLA S.A.	10.40	LA LIBERTAD AND ANCASH	9.8
WIND FARMS					
16	CE WAYRA I (before: Parque Nazca)	ENEL GREEN POWER PERU S.A.	132.3	NAZCA	296.6
17	CE PARQUE EOLICO DUNA	GR TARUCA S.A.C.	18.37	CAJAMARCA	32.1
18	CE PARQUE EOLICO HUAMBOS	GR PAINO S.A.C.	18.37	CAJAMARCA	32.1

Source: MINEM

TEMPORARY CONCESSIONS IN STUDY PHASE					
No.	Plant Name	Concession Holder	Installed Capacity (MW)	Location	Investment Amount
HYDROELECTRIC PLANTS					
1	CH VILCANOTA 4	EMPRESA DE GENERACION ELECTRICA SANTA MARIA SAC	62,06	CUSCO	US$150,000.00
2	CH CCOLLPANI	EMPRESA DE GENERACION ELECTRICA CCOLLPANI SAC	50	CUSCO	US$150,000.00
3	CH PAUCARTAMBO	OXAPAMPA ENERGIA SAC	63	PASCO AND JUNIN	US$250,000.00 (no VAT included)
4	C.H. NUEVA GRANADA	HIDROELECTRICA NUEVA GRANADA SAC	22	CUSCO	USD256,000.00 (no VAT included)
5	CH ESPERANZA	MONSPI PERU SAC	20	AYACUCHO	S/68,000.00 (no VAT included)
6	CH CHIMU	HIDROELECTRICA CHIMU SA	50	LA LIBERTAD	S/266,090.00 (VAT included)
7	CH SAN GABAN I	EMPRESA DE GENERACION ELECTRICA SAN GABAN SA	110	PUNO	USD796,500.00 (VAT included)
8	CH AUKA	LEVEL INGENIEROS SAC	20	AYACUCHO	S/38,350.00 (VAT included)
WIND FARMS					
9	CE TAMBORERO	SOLAR INVESTMENT SAC	60.0	ANCASH	US$35,000.00 (no VAT included)
10	C.E. PAMPA LOMITAS	ENGIE ENERGIA PERU SA	150	ICA	S/400,000.00 (VAT included)
11	C.E. PUNTA LOMITAS SUR	ENGIE ENERGIA PERU SA	100	ICA	S/400,000.00 (VAT included)
12	C.E. PUNTA LOMITAS NORTE	ENGIE ENERGIA PERU SA	150	ICA	S/400,000.00 (VAT included)
SOLAR PLANTS					
13	CS HIPERION	HIPERION SOLAR SAC	100	AREQUIPA	US$22,525.00 (no VAT included)
14	CS MAJES II	SW ENERGIAS LIMPIAS DEL SUR SA	80	AREQUIPA	S/19,057.00 (VAT included)

Source: MINEM

Regarding transmission activities, up to 2017, 325 total definitive concessions were granted for gridlines projects (298 in operation and 27 under construction).

TRANSMISSION ACTIVITIES UNDER DEFINITIVE CONCESSIONS (PROJECTS)

No.	Transmission Line Name	Concession Holder	Location	Tension (kV)	Length (km)	Investment Amount (millions of USD)
1	S.E. TULUMAYO IV - T8 (220 KV S.E. RUNATULLO III - S.E. CONCEPCION)	EGEJUNIN TULUMAYO-IV S.A.C.	JUNIN	220	8.147	3.1
2	S.E. POROMA - S.E. MINA JUSTA	MARCOBRE S.A.C.	ICA	220	14.16	18.78
3	LOS HEROES - PARQUE INDUSTRIAL	ELECTROSUR S.A.	TACNA	66	11.71	34.0
4	S.E. PLANICIE - S.E. INDUSTRIALES	CONSORCIO TRANSMANTARO S.A.	LIMA	220 220	12 5	60.8
5	LT SE 8 DE AGOSTO - SE TINGO MARIA SE EL CARMEN - SE 8 DE AGOSTO CH 8 DE AGOSTO - SE 8 DE AGOSTO- SEEE 8 DE AGOSTO AND EL CARMEN	GENERACION ANDINA S.A.C.	HUANUCO	138 22,9 13,8	58,67 1,83 0,18	8.0
6	C.H. CHALHUAMAYO - SET SATIPO	ELECTROCENTRO S.A.	JUNIN	22.9	19.27	1.3
7	S.E. BELLA UNION - S.E. CHALA	SOCIEDAD ELECTRICA DEL SUR OESTE S.A.- SEAL	AREQUIPA	60	75.87	64.0
8	SE H1 - SE CHANCHAMAYO	EMPRESA DE GENERACION ELECTRICA SANTA ANA S.R.L.	JUNIN	60	18.5	4.4
9	S.E. CARHUAQUERO - S.E. CAJAMARCA NORTE S.E. CAJAMARCA NORTE - S.E. CACLIC S.E. CACLIC - S.E. MOYOBAMBA NUEVA S.E. MOYOBAMBA EXISTENTE - S.E. MOYOBAMBA NUEVA	CONCESIONARIA LINEA DE TRANSMISION CCNCM S.A.C.	CAJAMARCA, AMAZONAS AND SAN MARTIN	220 220 220 138	95,76 159,28 110,17 2,70	106.887
10	S.E. C.T. IQUITOS NUEVA - S.E. C.T. IQUITOS (ELOR)	GENRENT DEL PERU S.A.C.	LORETO	60	14.2	5.5
11	S.E. COLCABAMBA - S.E. POROMA S.E. POROMA - S.E. YARABAMBA S.E. YARABAMBA - S.E. MONTALVO ENLACE S.E. MANTARO (CAMPO ARMIÑO) - S.E. COLCABAMBA ENLACE S.E. YARABAMBA - S.E. SOCABAYA	CONSORCIO TRANSMANTARO S.A.	AYACUCHO, HUANCAVELÍCA, ICA, AREQUIPA AND MOQUEGUA	500 500 500 220 220	360,00 454,00 98,00 2,70 3,60	
12	S.E. ANDAHUASI - S.E. YARUCAYA	HUAURA POWER GROUP S.A.	LIMA	66	21.2	2.9
13	S.E. LA VIRGEN - S.E. CARIPA	LA VIRGEN S.A.C.	JUNIN	138	62.57	5.8
14	S.E. MOQUEGUA - S.E. INTIPAMPA S.E. INTIPAMPA - S.E. TOQUEPALA (MILL SITE)	ENGIE ENERGIA PERU S.A. (before: Energia del Sur)	MOQUEGUA AND TACNA	138 138	10,76 27,96	4.3
15	SE ANGEL I - BOCATOMA SE ANGEL I - SE ANGEL II-SE ANGEL III - SE SAN GABAN II	GENERADORA DE ENERGIA DEL PERU S.A.	PUNO	13,8 138	2,1 8,8	6.2

TRANSMISSION ACTIVITIES UNDER DEFINITIVE CONCESSIONS (PROJECTS)

No.	Transmission Line Name	Concession Holder	Location	Tension (kV)	Length (km)	Investment Amount (millions of USD)
16	SE RUNATULLO III - SE TULUMAYO IV	EGEJUNIN TULUMAYO-IV S.A.C.	JUNIN	60	7.49	1.4
17	S.E. RUBI - S.E. MONTALVO	ENEL GREEN POWER PERU S.A.	MOQUEGUA	220	21.51	14.8
18	S.E. FLAMENCO - S.E. POROMA	ENEL GREEN POWER PERU S.A.	ICA	220	0.685	8.3
19	S.E. SURIRAY (MACHUPICCHU) - S.E. KAYRA (ONOCORA NUEVA) S.E. KAYRA - S.E. ONOCORA S.E. ONOCORA - S.E. TINTAYA NUEVA	ATN 3 S.A.	ANCASH	220 220 220	153,81 109,98 70,63	135.45
20	S.E. MAMACOCHA - S.E. CHIPMO	HIDROELECTRICA LAGUNA AZUL S.R.L.	AREQUIPA	66	63.7	7.1
21	SE TARUCANI - SE MAJES	TARUCANI GENERATING COMPANY S.A.	AREQUIPA	138	58.4	10.6
22	C.H. ZAÑA - S.E. CAYALTI	ELECTRO ZAÑA S.A.C.	CAJAMARCA AND LAMBAYEQUE	60	50.3	4.0
23	S.E. CAMANA - S.E. ALTO OCOÑA	SOCIEDAD ELECTRICA DEL SUR OESTE S.A.	AREQUIPA	138	48.8	11.8
24	LT SE MANTA - SE LA PAMPA	PERUANA DE INVERSIONES EN ENERGIAS RENOVABLES S.A.C.	ANCASH	66	2.68	0.51
25	SE MONTALVO - SE TIA MARIA	ABENGOA PERU S.A.	AREQUIPA AND MOQUEGUA	220	101.15	23.61
26	S.E. TULUMAYO V - S.E. TULUMAYO IV	EGEJUNIN TULUMAYO-V S.A.C.	JUNIN	220	9.18	4.2
27	S.E. BELO HORIZONTE - S.E. TINGO MARIA	COMPAÑIA ENERGETICA DEL CENTRO S.A.C.	HUANUCO	220	20.2	0.1

Source: MINEM

Regarding the projects that are to come, according to the December 2017 Report of the Central Bank of Peru, for the period 2018-2019, the following projects are to be awarded in the electricity sector:

- Reboost up to 1000 MVA of the 500kV of the Carabayllo – Chimbote – Trujillo grid.
- Variable reactive compensator in San Juan sub-station.
- New 500kV sub-station in La Planicie.
- Chincha Nueva sub-station.
- Nazca Nueva sub-station.
- 220kV Nueva Carhuaquero sub-station.

Energy export

Regional interconnection is a challenge for a growing market such as the Peruvian electricity market, trying to expand the disputable market to make it more interesting and promote greater investment and greater possibilities of choice for the consumers. The generation of significant margins of energy reserves has led to a greater interest in interconnection, to offer surplus energy in other countries.

Peru has an agreement for the exportation of energy with Ecuador under the scope of some Decisions of the Andean Community of Nations (CAN) since 2002.

In 2002, CAN Decision No. 536 established the general rules for the subregional interconnection of the electric systems of Colombia, Ecuador and Peru. This Decision stated the main rules for purposes of the exchange of energy between the signing Countries.

Later in 2009, the aforementioned Decision No. 536 was suspended by means of Decision No. 720. According to Decision No. 757 published in 2011, Decision No. 536 would remain suspended, but a provisional regime for the exchange of energy between Peru and Ecuador would enter into force.

Nowadays, Decision No. 536 is still suspended and the provisional regime is still in force until the new Andean Region Electric Market (MAER) stated in Decision No. 816 is ruled and has its ruling published in the Cartagena Gazzette. Once this happens the MAERC will enter in force in the terms stated in Decision 816 and its ruling.

According to the current provisional regime, the exchange of electricity between Peru and Ecuador will be subject to surplus energy and power of the exporter country. By this, Peru and Ecuador compromise to respect the agreements between entities from both countries as they respect the correspondent internal regulations.

Note that Peru has a simple link grid between Zorritos (Peru) and Machala (Ecuador) so the electric interconnection is pretty basic, that's why the amount of energy import and export between them is not so high. In addition, the electricity generators can not celebrate contracts directly with a foreign company or vice versa, it is the Interconnected Electrical National System (SEIN) that exports and that is credited to the Economic Operation Committee of the National Interconnected System (COES).

Electricity exchange between Peru - Ecuador (GWh), accumulated to december 2017

Exchanges	2017	2016	Variation	
			Energy	%
Import	16.60	22.40	-5.81	-25.92%
Export	0.00	37.88	-37.88	100.00%

Source: COES

In relation to other countries of the South American Region, it is important to mention that Peru has a Binational Interconnection Agreement with Brazil signed in 2010, but such interconnection is expected to be a project to be developed in the long term; and there are no expectations for a connection between the Colombia and Peru grids as they are geographically far, and such connection will necessitate a big investment in infrastructure into areas that are hard to get into.

However, in June 2017 the Ministries of Energy and Mines of Chile and Peru agreed to an electric interconnection between both countries, through the construction of the Tacna-Arica transmission line. The beginning of March 2018 is the planned date to award the construction of the power line linking southern Peru and northern Chile. According to information provided by the regulatory entities of both countries, the electric interconnection could be operational during 2019, and the transmission line will extend for 50 kilometers and will have a transport capacity of about 200 MW.

This future interconnection would not be the end of the interconnection between Peru and Chile. According to the Ministry of Energy and Mines of Chile, if this project is successful and the market conditions are favorable, they would extend the interconnection to a second project that is projected from the Camisea area (south of Peru) to Antofagasta (north of Chile). So Chile could export the renewable energy produced in the northern zone, but also buy cheap electricity produced with natural gas that is extracted in Camisea.

03

Renewable energy sources

Energy Plan 2014-2025, COP and OECD

The Technical Organism for Strategic Planning of Peru (CEPLAN) developed the 2014 – 2025 National Energy Plan. This document describes the current situation in Peru regarding the use of energy in Peru in the recent years and details what should be expected in regards to energy management matters in the short term future.

Currently, Peru's energy matrix is dominated by the use of natural gas as the main resource for the production of natural gas from Camisea Project is still one of the biggest projects developed in the energy sector. Before natural gas became the main energy source, the energy matrix depended, basically, on liquid fuels and other hydrocarbons.

According to the abovementioned energy plan, in the coming years it is expected that generation of energy will come, mainly, from hydroelectricity and other non-conventional renewable sources. This change is already on its way as the Government is promoting the use of new energy by means of incentives stated in legal dispositions.

Regarding the development of renewable sources, it is worth saying that in years 2020 and 2021, the 1,200Mw of electricity generation awarded in 2014 will be in abundance of use, and that non-conventional renewable resources will increase its participation in the national energy matrix to 5%.

The expected change in our energy matrix follows the same orientation as what is happening globally. Nowadays, countries are rushing to modify the structure of their energy matrix and make them dependent on renewable resources for economic, social and environmental reasons.

As an example of this, it is known that many countries have introduced national policies in order to become 100% renewable energy based countries. Along this line, Denmark, as one of the countries leading the way to become a sustainable country, aims to be 100% fossil fuel free by 2050 through increasing the use of wind power and developing other clean energies.

Other examples of how serious this trend is being taken by countries are:

- Almost 100% of the energy used by Iceland comes from geothermal and hydroelectric power plants.
- Sweden has implemented policies in order to eliminate fossil fuel usage.
- UK now generates more electricity from wind farms than from coal power plants as

they now use a combination of grid-connected wind farms and standalone turbines.

- Uruguay has heavily invested in wind and solar power in recent years. As a result of this, Uruguay now has an energy supply that is 95% powered by renewable sources. This has been achieved in less than 10 years.
- Mexico is one of the countries with the lowest prices for renewable energy generation in the world. In the three auctions carried out in the country, the sale price of 1 megawatt hour plus a clean energy certificate (CEL) went from US$47.78 in the auction of 2015, to US$33.4 in the second auction of last year, to no less than US$20.57 in the process that concluded in November 2017.

This trend is also supported not only by economic reasons, but by the need of countries to assure their energy resources when facing the consequences of climate change. Regarding this, countries have signed agreements and hold annual meetings in which they come together to incentive the use of clean energies to prevent any possible negative consequences of climate change.

In this regard, every year, Kyoto signing countries hold the Conference of the Parties (COP), which is an annual meeting on the framework of the United Nations Framework Convention on Climate Change (UNFCCC). This meeting serves to assess progress in dealing with climate change, and negotiate the Kyoto Protocol to establish legally binding obligations for developed countries to reduce their greenhouse gas emissions, and consider the principles and discuss the main aspects of the implementation of the Paris Agreement.

In 2017, the COP meeting discussion topic was sustainable innovation in which the use of clean energies and new policies for the reduction of greenhouse gas emissions were talked about.

By its side, the Organization for Economic Co-operation and Development (OECD) is also a great promoter of the use of clean energy as an international policy. According to the OECD, investment in clean energy needs to be mobilized at a pace and scale to contribute to mitigating climate change and achieve the transition to a low carbon energy system. For the OECD the need of global policy for the use of clean energy is a relevant factor for the social and economic development of countries. Regarding this, the OECD has held roundtables in which the main discussion was the need for investment in clean energies globally.

Renewable energy policy

Regulation in Peru of renewable energies is still limited. In year 2000, the first specific Law on an energy issue - this is, Law No. 27345 – Law for the promotion of the efficient use of energy - was enacted. Later, in year 2005, Law No. 28546 – Law for the promotion and use of renewable energy sources in rural, isolated and borderline areas was enacted. This was the first attempt of the Peruvian Government to generate renewable source-based energy. Since this, the regulatory framework orientation changed and aimed to promote the development of electricity production by means of the use of big-scale energies (on-grid and off-grid).

Despite having a general law for geothermal energy –a kind of renewable energy- since 1997, its Ruling was only published in 2006 by means of Supreme Decree No. 072-2006-EM. This Supreme Decree established the conditions and other important regulations regarding the development of geothermal concessions in Peruvian Territory, and then was replaced for a new Ruling published in 2010 by means of Supreme Decree No. 019-2010-EM In 2008, Legislative Decree No. 1002 was enacted. The main purpose of this Legislative Decree was to qualify

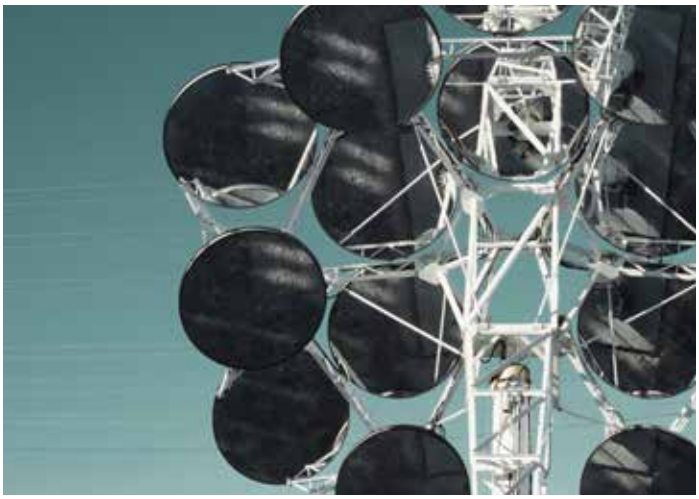
the promotion of renewable energies as an issue of national interest. In this sense, this Legislative Decree established the main regulations for the auction of renewable source energy and its conditions. As of this, by the end of year 2008, the first renewable source energy auction was hosted by the Supervisory Body of Private Investment in Energy and Mines (OSINERGMIN). This was the beginning of the Peruvian path to clean energy.

Later, in 2010, the first Energy National Policy was published for period 2010 - 2040. This document set the long term objectives and principles in energy matters that Peru should reach by 2040. As a way to reach such objectives, a medium-term National Policy was then published for the period of 2014 - 2025. In this document, the expectations for the future of Peru in Energy regulation and development are described.

This 2014 - 2025 National Energy Plan highlights the importance of the use of clean energy in the future in order to prevent any future energy deficit and at the same time promote the regional sustainable development and integration. Also, this Plan foresees that the 800,000TJ of energy consumption registered in 2014 will increase to 1'321,000TJ to 1'612,000TJ in 2025 depending on Peru's GDP in such year.

Despite this great effort to set a path to development in energy matters, it is still pending a specific National Plan for the Development of Clean Energies (Renewable Energies).

This 2014 - 2025 National Energy Plan highlights the importance of the use of clean energy in the future in order to prevent any future energy deficit.



04

Potential of Renewable Energy Sources

According Bloomberg reports, 33% of the world's electric power will come from renewable sources by the year 2050. Peru has great potential for the development of clean energies, and in this sense, investments should be oriented in the following energies:

Hydroelectricity

Water is the main renewable energy source in Peru for the generation of electricity, both in the interconnected system and in isolated systems (especially associated with mining companies and some industries). For many years, hydroelectric plants have helped generate electricity, producing less contamination which is benefitial for the users.

In Peru, this kind of energy is possible thanks to three big water sources: the Atlantic runoff, the Pacific runoff and the Titicaca runoff. In the 1970s, within the framework of the Peruvian-German Energy Cooperation Program, an evaluation of the national hydroelectric potential was carried out. About 800 hydroelectric projects with a minimum power of 30 MW were evaluated, and 328 hydroelectric projects that met the defined viability criteria were finally selected.

This study determined a total technical potential of 61, 832 MW, which is still considered as the technically usable national hydroelectric potential, due to the lack of updated information. Likewise, a potential of around 1 000 MW was estimated for small hydroelectric plants (less than 10 MW).

Region	Theoretical potential, MW	Technical potential, MW
Amazonas	14 114	4 234
Ancash	5 555	1 667
Apurimac	1 347	404
Arequipa	8 362	2 509
Ayacucho	–	–
Cajamarca	3 807	1 142
Cusco	24 501	7 350
Huancavelica	–	–
Huanuco	–	–
Ica	2 552	766
Junin	1 654	4 816
La Libertad	1 649	495
Lambayeque	886	266
Lima	7 444	2 233
Loreto	54 936	16 481
Madre de Dios	9 445	2 834
Moquegua	1 508	452
Pasco	–	–
Piura	931	279
Puno	573	172
San Martin	37 278	11 183
Tacna	398	119
Tumbes	295	89
Ucayali	14 472	4 342
Total	206 107	61 832

Source: MINEM

Wind power energy

This kind of energy consists of the movement of big air masses from high atmospheric pressure areas to low atmospheric pressure areas. Due to the location of Peru on the globe, including areas between the Pacific Ocean and the Andes, winds from the south west lead to great opportunities for the use of wind power energies as they reach speeds greater than 5m/s (this is the minimum speed needed to generate electricity with this source).

According to the Wind Atlas of Peru developed by the MINEM, Peru has an estimated potential of more than 77,000WMV, which means that more than 22,000WMV can be generated from this source. Moreover, according to the Peruvian Wind Maps calculated at 50, 80 and 100 m, respectively, the areas with the greatest potential for large capacity wind generation are on the coast. The regions of Piura, Lambayeque and Ica have the highest average annual wind speeds.

Wind power can complement hydraulics, because it is precisely during the dry season when the best movement of the winds occur on the Peruvian coast, the same ones that have an energy vocation for their stability and power. Currently, the potential of this kind of energy is almost three times greater than its actual installed capacity.

Geothermal energy

Geothermal energy consists of the energy generated and stored in the earth due to its heat. Whenever temperatures cause underground water to reach its boiling point, this can be useful for purposes of using such heat to make turbines work and generate energy. This is known to happen most frequently in volcanic areas.

Scientifically, as we have many volcanic areas in Peru and we are located in the seismic zone of the well-known Pacific Ocean Ring of Fire, there are numerous thermal sources with temperatures between 40°C (104°F) and 90°C (194°F) that are mostly located in the Occidental side of the Andean Mountains and the highlands.

As such, Peru has more than 156 identified geothermal areas, more than 200 hot water runoffs, many vents and some geysers with temperatures near the 100°C (212°F). The greatest geothermal potential for Peru is found in six geothermal regions: Cajamarca, Huaraz, Churin (Lima, Pasco and Huanuco), Central Zone (Huancayo, Huancavelica and Ayacucho), Volcanic Zone (Ayacucho, Apurímac, Arequipa, Moquegua and Tacna), and Puno and Cusco.

Solar energy

This kind of energy is, basically, the source of the origin of every other kind of energy. The appropriate utilization of solar energy by means of solar panels and other solar collectors leads to the generation of thermal energy that can be used in isolated areas and places where there is no connection to electric grids.

As this energy depends on solar light, it is the easiest to reach in almost every place of Peru. The average annual radiation of Peruvian regions oscillates between 3.3kWh/m2 and above 6.0kWh/m2 annually, being Ancash, Arequipa, Lambayeque, Moquegua, Puno and Tacna the regions with the highest average, and hence, being the regions with the most potential.

Regarding this kind of energy source, in 2003, the National Service of Meteorology and Hydrology (SENAMHI) developed a Solar Energy Atlas in which an important valuation of this source is detailed. Despite this document having not been updated, there are many other scientific publications in which the Peruvian solar energy potential is described in detail.

Biomass

This kind of energy is more likely to be used in isolated systems where there are no other renewable resources. There are three major regions where biomass presents an interesting potential to be used for medium energy purposes and great power: the northern coast (sugarcane bagasse, rice husk, hydrobiological waste); the high jungle (coffee husks, forest residues); and the low forest (forest residues).

From now on, concerning non-conventional energies (solar, wind powered, geothermal, biomass and hydroelectric up to 20MW), their promotion via auctions hosted by the Supervisory Body of Private Investment in Energy and Mines (OSINERGMIN) was authorized by Legislative Decree No. 1002 in 2008.

For purposes of these auctions, the Ministry of Energy and Mining (MINEM) states an energy objective to be reached by each kind of energy source. The main incentives for these auctions are that the awarded corporations have priority on the supply and sale of energy by the Economic Operation Committee of the National Interconnected System (COES), priority on the access to distribution and transmission grids and long term stable prices determined by auctions.

The conditions for the auctions are established by the MINEM, and the process is hosted by OSINERGMIN. This latter also sets the maximum prices and calculates the applicable premium annually.

In these auctions, awards are granted to offerors who communicate the lowest prices up to the limit of the energy quote applicable to the auction. For these purposes, the interested corporations send offers that detail the desired amount of annual energy (MWh) and its related prices in USD/MWh.

The awarded corporations in these auctions have the right to a minimum income equivalent to the energy and price offered in the auction, but only if their compromised energy amount liability is met. Also, these corporations have the right to additional income based on the energy produced in excess (valued in CMg) and other additional income if reactive energy is generated.

Up to 2018, four auctions have already been hosted by OSINERGMIN:

First auction (2009 - 2010)

This first Auction consisted of two calls. The energy quote established for the first Auction was 4,380GWh/year between hydroelectric, wind powered, biomass and solar energy. In the case of the second auction, the energy quote was about 2,500GWh/year between biomass and solar energy. As a result of the two calls, a total of 26 authorizations for projects were awarded. The main awarded projects were Marcona Wind Farm Project (Ica) and and Talara Wind Farm Project (Piura).

Second auction (2011)

This Auction consisted of a unique call in which the energy quote was 1,981GWh/year between hydroelectric, wind powered, biomass and solar energy. This time, 10 authorizations for projects were awarded. The main projects awarded were Tres Hermanas Wind Farm Project (Ica) and Moquegua Solar Plant (Moquegua).

Third auction (2013)

This Auction also consisted of a unique call in which the energy quote was 320GWh/year for biomass, 1300GWh/year for hydroelectric energy and 500,000 PV systems for solar energy. In this unique call, 15 authorizations for projects were awarded. This time, hydroelectric energy projects like Hydrika 1, Hydrika 2, Hydrika 3 and Hydrika 4 (Ancash) were awarded.

Fourth auction (2016)

This is the last Auction that was made. It consisted of two calls in which 13 authorizations for projects were awarded. The authorized projects consisted of 2 biomass related projects, 3 wind power related projects, 2 solar energy related projects and 6 hydroelectric energy related projects. Projects like Biomasa Callao (Lima), Huambos Wind Farm (Cajamarca) and Intipampa (Moquegua) were awarded.

All the aforementioned Auctions had had great reception between the corporations of the sector and in each one almost 100% of the established energy quote was able to be covered. There is expected to be a fifth Auction this year 2018.

Hydrocarbons in Peru

3 Secc C | Trends in the Oil & Gas, and the Energy industry in Peru

01

Oil & gas

Trends in the hydrocarbons industry

The actual international context, in which oil prices have still slumped more than 60% of their value compared to 2014, truly puts companies at a stage in which it will be necessary to produce more efficiently. But it also brings an opportunity to discuss new policies that may help to develop new projects.

In particular, this means that governments will have to step up in order to prevent negative consequences in economies which rely heavily on oil. Certainly, countries like Mexico and Colombia have taken decisions towards reducing the tax burden of oil companies. Meanwhile, Peru is looking forward to following those steps, especially regarding the reduction of royalties.

In this regard, during the last few months, Perupetro has began revising hydrocarbon regulations and identifying topics that could be changed in the short-term. The main goal of this reform is to provide energy security, sustainable economic growth and to improve the quality of life for the population. In this sense, the reform has been focused on redesigning and reinforcing the institutional framework in order to articulate more efficient and timely plans.

In particular, Perupetro's reform will focus on three pillars or main topics, which are:

1) Regulatory framework
2) Reinforcement and redefinition of Perupetro's role
3) National Plan

The first pillar aims toward developing a more competitive framework with worldwide tendencies that allows it to attract new sustainable investments, with wide entrepreneurial, technological, social, and environmental support. This means, among other aspects, a revision of contractual terms, a regulatory update of norms and regulations, and attainment of a socio-environmental license.

The second pillar is focused on remaking Perupetro into an active investment promoter, leading the interaction and development of sector policies, with full capacity and autonomy. This will include the institutional and organizational strengthening of Perupetro, a redefinition of its promotion process, contractor's support, hydrocarbons production and reservoir management.

The third pillar will aim towards the development of a National Hydrocarbons E&P Plan, by establishing medium and long term production, reserves and goals.

As part of these reforms, Perupetro is also revising the current royalty framework, the contract model and the requirements related to legal, technical and financial capacity of oil & gas companies. Results of these activities are expected to be approved by the first, second and third quarter of this year (2017).

Perupetro is also planning to carry out oil bidding rounds on several onshore and offshore blocks during the coming years and thereby promoting investment in the peruvian oil & gas sector.

The opportunity opening for Peru is important, even more so if we consider that the majority of the oil sedimentary basins have not been explored yet. Also, there are large natural gas reserves not only in the area surrounding the Camisea project, but also in other locations, such as Piura and Tumbes.

Biofuels

The development of the natural gas industry in Peru is contributing to the creation of new industrial opportunities around this resource, such as in biofuels and in the Petrochemical Industry. This will contribute to reaching the energy matrix diversification objective, so that by 2025 Peru will have reached a diversified and more equilibrated matrix (13.8% oil; 65.7% natural gas and natural gas liquids; and 20.0% renewable resources).

In this context, biofuels are a clean and renewable alternative against the contaminating oil industry, especially for its contribution to the diversification of the availability of liquid fuels for transport.

In Peru, there is no significant production of biodiesel or ethanol, but some processing plants have been installed during recent years.

Some of the companies that have made investments in this industry are: Pure Biofuels, Biodiesel Peru International, Herco Combustibles, among others.

Peru has some advantages related to biofuel production, due to the great potential to develop several oil crops, and by obtaining fats and oils from animal byproducts. The existing potential crops show high production yields.

Petrochemical Industry in Peru

The Petrochemical Industry is an important economical segment in many countries, especially in the ones that have available raw material in competitive quantities such as Peru.

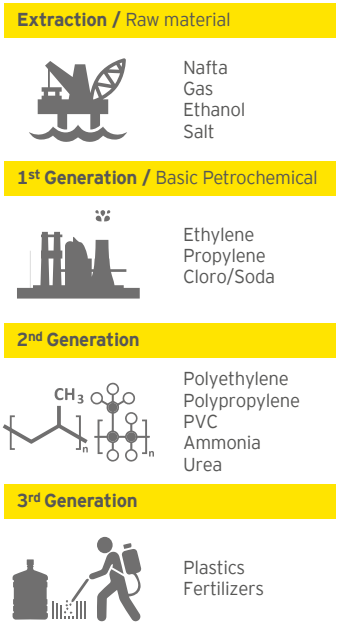
The Petrochemical Industry is divided into three segments:

- First generation basic industry (for example: synthesis gas, ethylene)
- Second generation industry (for example: ammonia, urea, polyethylene, and polypropylene)
- Transformation industry or third generation (for example: fertilizers NPK, MAP, plastics)

In the case of Peru, the vision that needs to be realized is to have a planned petrochemical development for the southern part of the country that will not only supply the country but also create earnings and an export market for its products mainly in the Pacific Coast of Latin America.

Nevertheless, Petrochemical Industrial Planning in a country such as Peru, in which investment is linked to decisions of private companies, requires an important agreement between sector authorities of the Government and potential investors.

Competitive integration



Source: EY

In this sense, the implementation of laws, including the ones affecting energy security and the future of Petrochemical Industry (Laws No. 29163, 29690, and 29970) demonstrate a great opportunity for private companies willing to invest.

Having raw materials (supply) and a developing market (demand) worldwide are some of the variables that make it attractive today to start a competitive Petrochemical Industry in Peru.

Governments will have to step up in order to prevent negative consequences in economies which rely heavily on oil.

Added value and investment opportunities

The arrival of natural gas to the southern part of the country is a unique opportunity for developing investment projects in petrochemicals, which will add value to the supply chain of natural gas.

Natural Gas

Natural gas has many components that can be transformed into other derivatives

Propane C_3

- Propylene
- Polypropylene (plastics)

Ethane C_2

- Ethylene
- Polyethylene
- Ox. of ethylene

Methane C_1

- Ammonia
- Urea (fertilizers)
- Ammonia Nitrate (fertilizers, ANFO)
- Methanol (paints)

Petrochemical Complex

The development of a Peruvian Petrochemical Industry must search for a synergy between the future Southern Peruvian Gas Pipeline, first and second generation Industrial Petrochemical Complex and the third generation industrial complex: plastic transformation industry (bags, containers, etc.).

Competitive availability of raw material is the main factor to make this Project feasible. In this case, the existence of a reasonable gas flow at the end of the SPP is very important. This hypothesis will only be possible if a new LNG unit is developed in the region, since it is the only project that can add natural gas demands.

The planning of a petrochemical complex involves a number of other important decisions. Not only the ones that guarantee raw material supply, but also factor in location, access to transportation (highways, sea ports and airports), supplies such as water and electricity, and of course human resources.

The opportunities explained above are great for investors to visualize how this synergistic interrelationship will benefit them, the government and the population in general.

A list of integrated units in a petrochemical complex, with their respective investment estimations, demonstrates that they all could be more than US$15 billion:

Project	Investment US$ billion
LNG	5
Ethylene Polyethylene	5
Ammonia Urea	1.8
Methanol	1.5
Infrastructure and services	1
Energy	1

Benefits for the country

The installation of a petrochemical industrial base in the country will not only increase added value to nonrenewable resources such as natural gas, but with the ensuing decrease of imported petrochemical products (improving the trade balance), it will also contribute to improving national and regional economic growth. This growth will create quality jobs and new road and port infrastructure, among other significant benefits for the country, especially to the southern region. Benefits for the country in respect to taxes will be significant.

Opportunity to join several stakeholders to achieve the desired goals

It is important to consider that the development of a Petrochemical Industry is one of the objectives of the Energy policy of the Peruvian Government. To achieve this goal, it is necessary to establish a Strategic Plan together with the Government, regional and private sectors that will allow this megaproject to be developed in the short term.

Not-with-standing the above, private companies are willing to directly negotiate the terms of supply of natural gas.

Certainly, such statement were made by Contugas in relation to three possible investors willing to engage in petrochem operations.

02

Energy

Start-ups

The energy revolution is just starting in Peru. Until now, the market has only shown great openings for development of big corporations that are able to meet the requirements set in regulatory laws that aim to attract high amounts of investment. Despite this, there are lesser known offerors who act as market agents that are trying to expand the scope of benefits of using clean energies to users that cannot connect to the already built big systems of electricity. This is happening with some start-ups.

Start-ups consist of big potential corporations that are in their initial phases. All of them with innovative ideas in different areas that can produce growth in order to become important participants of the market. The Energy Sector is not out of the scope of start-ups; many revolutionary ideas have been in place and markets are now starting to get results.

For example, in Peru, we found start-ups focused on creating efficient systems based on renewable energies. These kind of start-ups have developed hybrid systems in order to reduce costs by up to 90% when producing energy. This product is intended to lower the cost structure for big companies.

In addition to their main service, these little corporations have included a social component in their scope, and their knowledge is used to help vulnerable populations to have access to electricity through the use of clean energies.

After generating income with their main service, these start-ups use a percentage of their earnings to create lamps that use solar power to function and donate them to areas where there is no connection to an electricity system. In this sense, these start-ups make sales in conjuction with large corporations that seek to reduce their operating costs, and the profit achieved by the big corporations serves to collaborate for the benefit of vulnerable consumers in the electricity market.

Other example of start-ups, that just pop up around the world in the energy sector with innovative projects, are the ones related to the creation of flowerpot battery chargers that generate energy from the photosynthesis of the plant they host; and apps that allow control of the consumption of energy, emphasizing the effects that such consumption may generate if it becomes an excessive one; among others.

As we can see, the energy market is not limited only to big

corporations but also to start-ups willing to innovate and set a new path to sustainability and well-being.

Electric vehicles

Another relevant trend regarding the use of energy is linked to environmentally friendly cars (electric vehicles). These kind of cars are becoming popular as they help decrease greenhouse gas and other emissions that cars powered solely by internal combustion engines produce.

Around the globe, many countries are promoting the use of electric cars. In the case of Peru, recently, in 2018, the first electric bus has been put into service for public transportation and it is expected that two additional buses will be introduced before 2019.

Despite that, just a small number of hybrid cars are already circulating around the territory, the trend is that electric cars become a popular mean of transportation in the future.

03

Digital trends

Technology has defined the first decade of this millennium since its very beginning. Not only did we witness the dot-com bubble burst and erase millions of dollars in market capitalization of several firms, but also the recovery of those who survived and are now tech giants, such as Amazon, E-bay, and Google.

The shift from an analog to a digital world has driven humankind to increase the pace of our every day lives. Nowadays, it seems completely natural to have visual conversations through our mobile devices with any person anywhere in the globe, to store bigger amounts of data and analyze it at incredible speed, to make renewable energy sources economically viable, and so on.

The Oil, Gas and Electricity industries are embracing and harnessing the power of digital disruption in their daily operations and plans for the future. Hereunder, we will provide some examples of how technology is helping companies to bring that future today.

Artificial Intelligence (AI)

These advanced computing techniques based on cognitive computing and self-learning programming methods to optimize and support decision-making will be one of the fastest areas of growth over the next 3-5 years, according to World Economic Forum.

In the case of oil & gas companies, AI could be used together with robotic process automation, generating Intelligent Automation, so that they can employ critical thinking and quality checks among other traditional human processes, which have the potential to automate entire functions and free up time for engineers to focus on engineering tasks.

Moreover, AI could also be used with tools such as big data and analytics to identify the best areas and ways to drill and complete wells at lower costs, decrease unplanned downtime, optimize production, and improve refinery and chemicals operations, among other actions that would add value in the short and/or mid-term.

The Electricity Industry makes a similar use of AI in its activities as the Oil&Gas sector does. Electricity Industry activities also demand the application of AI to simplify processes and reduce the use of some expensive sources. Besides this, AI is also being used for the management of grids that have some level of machine learning and in devices designed to predict failures and outages.

Sources: EY / World Economic Forum

AI has also revolutionized the way engineers and other professionals work whenever emergencies on grids happen, nowadays there are self-healing grids that are able to reroute power around damaged equipment to keep the energy flow. Moreover, AI is also used by consumers that use devices that are able to react to preferences, leading to improved cost control and comfort.

Internet of Things (IoT)

The internet has gone a long way from just being a means to share information through the web. Now, it can bound together several devices in order to share data almost automatically, and use it with almost no human interaction. The IoT is on its way to integrate the physical tools we use to produce goods and services, and, thus, to live.

The Industrial IoT is one of IoT's uses that could help oil & gas companies of all three segments to improve their operations even further. In that regard Industrial IoT could connect field assets and equipment by using sensors, integrate transportation and storage facilities, or even expand visibility of the supply chain.

On the side of Electricity Industry, IoT is used in Supervisory Control and Data Acquisition (SCADA), this is, an application that allows centralized monitoring and control of remote systems for the generation and transmission of energy. IoT is used to allow users to access data via HMI interface after it is collected from remote field sensors, actuators, controllers and other communication devices.

IoT is also used for purposes of smart metering. Smart metering is used in smart grid implementations to transform traditional energy infrastructure. The use of IoT in smart metering helps to reduce operating costs by operating metering operations remotely, by improving forecasting and reducing energy theft and loss.

Mobile Devices

Mobile devices have empowered people perhaps beyond what computers did back when the latter became commodities available to almost everyone. They are evolving at a faster pace every year, simulating many, if not all, the functions of a desktop.

Oil, Gas and Electricity companies are aware of this, and they use mobile technology that allows the use of specialized applications in fields such as health, safety and environment (HSE), therefore dramatically reduce

The shift from an analog to a digital world has driven humankind to the pace of our everyday lives.

the possibilities of harm to their on-field employees in hazardous situations.

Blockchain

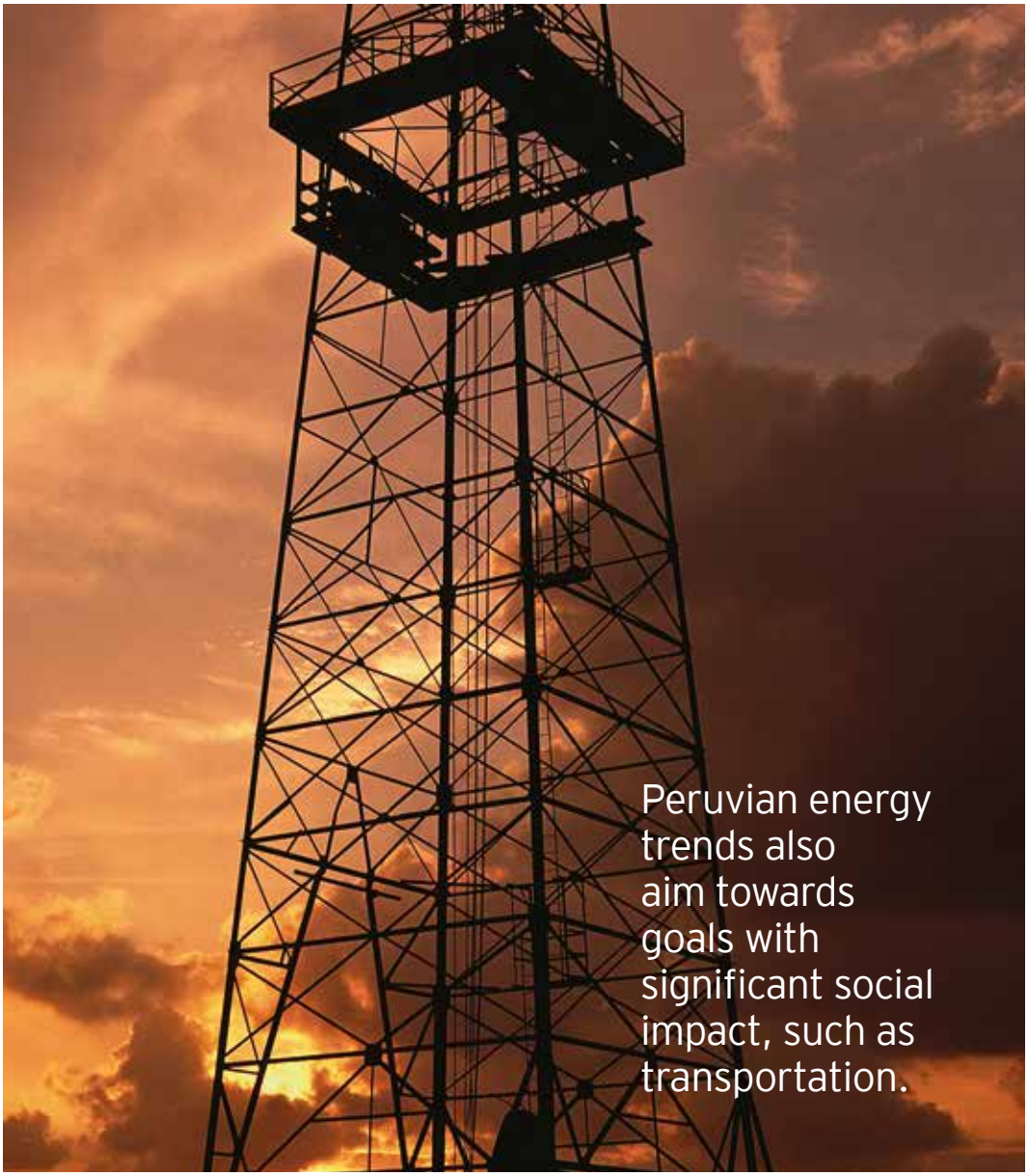
Blockchain is the technology everyone is talking about due to the cryptocurrency frenzy that came to the forefront last year. Indeed, blockchain is the core component of cryptocurrencies, and a technology in which its potential is still being discovered by private companies and governments alike (Delaware, for example).

The oil & gas sector is just starting to discover such potential. Due to the inherent security of the blockchain technology, oil & gas companies could establish a better control of data and information and provide consistency – particularly around the accounting of hydrocarbons, supply and demand, and materials movement.

As the sector increasingly leverages sensor technology across upstream and downstream assets, Blockchain can help compress process time and reactivity to an event by connecting assets directly to service providers without the need of human intervention. Furthermore, its use in smart contracts could also transform the supply chain, allowing for increased process efficiency and compliance.

In the same way in the Electricity Industry, Blockchain is seen as a useful tool when managing and controlling their production of clean energies. As many corporations control their production by certificates to differentiate clean energy from fossil fuels based energy and sometimes such management becomes burdensome when participating in a transaction, Blockchain can be used to keep track of such certificates by means of generating and saving data in a more efficient way. Therefore, the security that Blockchain provides can be utilized by sellers and buyers in order to access such information at a lower transactional cost.

Hopefully, Peru will be one of the next countries to enjoy the benefits of the digital revolution. As such, for this purpose not only does the Peruvian regulatory regime need to change and match the new trends but corporations should also revaluate how they operate, decide whether or not they will fit and feel comfortable in the market once their business model changes, and finally begin the process of change by aligning with new trends at the pace that fits them and its stakeholders the best.


Peruvian energy trends also aim towards goals with significant social impact, such as transportation.

Tax and legal framework

Tax and legal framework

4 Secc A | Regulatory terms

01

Oil & gas

Hydrocarbons agreements

Oil & gas exploration and production activities are conducted under license or service contracts granted by the Government. Under a license contract, the investor pays a royalty, whereas under a service contract, the Government pays remuneration to the contractor.

As stated by the Peruvian Constitution and the Organic Law for Hydrocarbons, a license contract does not imply a transfer or lease of property over the area of exploration or exploitation.

By virtue of the license contract, the contractor acquires the authorization to explore or to exploit hydrocarbons in a determined area, and Perupetro (the entity that holds the Peruvian state interest) transfers the property right in the extracted hydrocarbons to the contractor, who must pay a royalty to the state.

License and service contracts are approved by supreme decree issued by the Peruvian Ministry of Economy and Finance, and the Peruvian Ministry of Energy and mining, and could only be modified by a written agreement signed by the parties.

Before initiating any negotiation, every oil & gas company must be duly qualified by Perupetro, in order to determine if it fulfills all the requirements needed to develop exploration and production activities under the contract modalities mentioned above.

It must be noted that the terms and conditions under which license contracts are negotiated and subscribed remain the same for onshore and offshore blocks.

On the other hand, contractors will have the right to use water, grit, wood, and other construction materials, and to negotiate permissions, easements and the right to use water and surface rights, that necessarily result in carrying out their activities. If the exercise of such rights generates economic damages, they must be compensated.

Regarding the subscription of contracts, Perupetro has begun revising the scope of the current applicable regulations related to hydrocarbon royalties, qualification requirements for oil & gas companies and the terms of the license contracts to be signed with companies.

Upstream, midstream and downstream activities

The activities performed in the hydrocarbon sector are divided

into three stages: "upstream", "midstream" and "downstream". The activities included in the "upstream" stage comprise the exploration and exploitation of hydrocarbon deposits, while the "midstream" and "downstream" stages refer to refining, natural gas processing, transportation, distribution and commercialization of oil, gas and by-products.

Upstream Activities (*)

▸ *Exploration phase*

The exploration phase is aimed at discovering areas with oil potential. To reach that objective, oil companies must plan, execute and evaluate every type of geological, geophysical, and geochemical activity and carry out other studies, geophysical activities, drilling exploratory oil wells and other related and necessary activities for oil discoveries.

This phase will have a maximum duration of 7 years, counted from the effective date of the contract (60 days after the signing date) established on each contract.

This term can be divided into several periods as agreed to in the contract.

Notably, the Ministry of Energy and Mines can authorize an extension of three years for this stage, if the contractor has complied with the minimum working program established in the contract, and also commits to fulfill an additional working program that justifies such extension.

The contractor shall be responsible for providing the technical and economic resources required for the execution of the operations of this phase.

▸ *Exploitation phase*

The exploitation phase is comprised of development and production activities related to oil & gas extraction, in order to transport it to relevant markets. These activities include, among others, drilling of exploitation wells, the construction of pipelines to transport the extracted hydrocarbon production and any other activity for extracting hydrocarbon.

This phase will have a maximum duration of 30 years for crude oil, and 40 years for non-associated natural gas and condensates, both counted from the contract effective date.

Midstream Activities

These activities can be considered as a crucial part of the oil & gas sector activities, as they consist of the transport by pipelines, and storing of hydrocarbons. In order to start activities related to the transportation of hydrocarbons by pipelines, a company must be granted a concession, whilst it will only need to comply with specific requirements according to Peruvian regulations so as to store them.

Midstream related activities can also be related to the operation of gas processing plants and gas treatment and conditioning facilities in order to make it transportable, the operation of fuel pipelines systems, maritime transportation by tankers, and operating oil storage terminals.

Investment projects in gas processing facilities can be subject to the benefits granted to upstream projects. In this regard, a contract shall be signed by the investor and government, and it can only be modified by mutual agreement.

(*) Peru's oil & gas Investment Guide is mainly focused on upstream activities

Downstream Activities

- Refining

This activity involves the construction of industrial facilities, in which crude oil, natural gasoline or other hydrocarbon sources are transformed into fuel products, such as liquefied petroleum gas (LPG), gasoline, diesel and industrial fuels. Contractors must obtain an authorization from the General Hydrocarbons Bureau for executing such construction.

Distribution and commercialization

Liquid fuels and other hydrocarbon byproducts obtained as a consequence of the activity of refinery are distributed to wholesalers, who in turn, dispatch them to oil stations, to retailers and/or direct consumers, etc. In the case of liquid hydrocarbon and similar hydrocarbon byproducts, contractors must obtain an authorization from the Ministry of Energy and Mines (MEM). In the case of natural gas, distribution must be granted by a concession.

Government policies on the sale of natural gas

Contractors must consider that the authorization to explore or to exploit proven natural gas reserves requires them to guarantee the supply of the national market, for a specific period stated in the contract.

Assignment of an oil interest

The contractor can partially or totally transfer its interest or associate with any other qualified investor, provided that the operation is approved by the Ministry of Energy and Mines (MEM).

The transfer of the contractor's interest will lead to the maintenance of the same responsibilities regarding the guarantees and obligations assumed by the contractor. In this sense, the stabilized tax regime applicable to the contractor will also apply to the transferee.

02

Energy

Keywords

Electricity power

It is the amount of energy that can be delivered or distributed to a system in a simple unit of time. Power is registered in Watts, the active power unit of the International System of Units. 1 Watt is equivalent to 1 Joule (international unit of energy or work) per second (time unit). As such, power indicates the amount of energy that can be delivered each second for the consumption of electric systems (as the SEIN).

The power electric appliances is set in Watts if they are low powered, but if they have medium or high powered, their power is set in KiloWatts (kW), which is equivalent to 1,000 Watts or MegaWatts (mW), equivalent to 1'000,000 Watts.

Electric systems

Interconnected Electrical National System - SEIN

Group of transmission lines and sub-stations that are interconnected between them and with generation plants to allow the transference of electric energy between two or more generation systems.

Isolated System

Electric system that is not connected to the SEIN.

Energy Matrix

The Energy Matrix is a unique market model that shows the new circumstances of the energetic system. Each country and/or region develops an Energy Matrix depending on its own policies, challenges and objectives.

Renewable Energy Source - RER

Consists of energy sources such as biomass, wind power, solar power, geothermal sources and tidal energy. In the case of hydraulic energy, such source shall be considered as RER if its installed capacity is less than 20MW.

Geothermal source and by-products

Geothermal sources refers to energy that comes from underground and includes geothermal fluids of high and low temperatures. By-products of this kind of energy refer to minerals in solution and other products that can be obtained from natural thermal fluids, brines, gases and fumes located underground. These by-products do not include hydrocarbons.

Electricity industry activities

Generation

Activity that consists in the production of electricity by means of the transformation of a primary source like water or a thermic one such as natural gas, petroleum, carbon, diesel, among others. Renewable sources like wind, geothermal heat, solar radiation, and biomass, are also used for the production of electricity.

According to Peruvian regulations, this activity does not qualify as a public service; nor is it a natural monopoly. Generators could be considered as energy traders.

Transmission

Activity that consists in the transport of energy from generation plants to consumption centers. This activity uses high voltage grids (30V. and 60,000V.) and extra high voltage grids (138,000V. and 220,000V.).

According to the Electric Concessions Law there are two kinds of transmission system:

- Primary, which is paid by all the users of the electric system despite the active or inactive use of the system, and the
- Secondary, which is paid only by the effective users of the system, that is consumers and generators.

Law No. 28832, added two kinds of additional transmission systems:

- Guaranteed system, which is subject to bidding depending on the Transmission Plan approved by the Ministry of Energy and Mining, and the
- Complementary system, which is developed under the lead of one or more agents like complement of the Transmission Plan.

Distribution

Activity that consists of the transformation of high or extra high voltage energy to lower voltage of 30,000V or less in order to distribute such energy to final users. According to Peruvian regulations, the distribution activity comprises the grids operation and the commercialization of energy to regulated users and free users.

Granting rights in the electric sector

Definitive concession

This title is required for the utilization of public goods and for the owning of the right of way for the construction and operation of generation plants, sub-stations, transmission lines and grids for the serving of electricity to the public.

According to the Electric Concessions Law, its granting is required for the development of the following activities:

- Generation of electric energy that is based on hydraulic sources whenever the installed capacity exceeds 500Kw.
- Transmission of electric energy when its facilities could affect State property and/or require a right of way.
- Distribution of electric energy to be provided as a public service when the demand exceeds 500Kw.
- Generation of energy with energetic renewable sources when installed capacity exceeds 500Kw.

Authorizations

Consists in the permission that should be requested for the development of thermoelectric generation activities whenever the installed capacity of the plan exceeds 500KW.

Temporary concession

This title grants the right to use public goods and the temporary right of way. The owner of this kind of concession is responsible for the execution of viability studies on generation plants and sub-stations or transmission lines; also, the owner has a preferential right when requesting the correspondent definitive concession.

Granting rights for electric generation with renewable energy (RER)

RER generation auctions

Auction

Public tender process hosted by the Supervisory Body of Private Investment in Energy and Mines (OSINERGMIN) to assign the

adjudication rate to projects of RER generation up to the limit of the required energy. This process is conducted according to the document prepared and approved by the Ministry of Energy and Mining (MINEM), and ends in the closing date.

Required energy

This is the total amount of annual energy in MWh that is being auctioned. The required energy amount is established by the MINEM for each kind of RER on the basis of the estimated national consumption for the year.

Adjudication rate

Consists of the offer made in USD/MWh by interested corporations during the Auction. This rate guarantees each awarded corporation net energy injections up to the limit of the offered and adjudicated energy. Offered rates are not modifiable and are valid only during the date in which commercial operations start until the due date of the contract, being adjustable by the correction factor and the update formula agreed in the conditions of the Auction.

Closing date

The day in which all the requirements for the signing of the Contract are met according to the conditions stated in the conditions of the Auction. On this date, the Auction also ends.

Contract for the supply of renewable energy

The contract signed by awarded corporations once the Auction is ended. This document establishes the liabilities and conditions related to the construction, operation, energy supply and rates regime applicable to RER generation plants. This document includes the conditions of the Auction. This Contract starts on the closing date and is valid until its end date.

Policies for the commercialization of energy and power generated by RER

Electricity generated by RER has priority in the daily deliver of energy made by the Economic Operation Committee of the National Interconnected System (COES). As awarded corporations have guaranteed transmission lines according to its offer, in the case of extra capacity in the transmission or distribution systems of the SEIN, such corporations will have preferential access to them.

In order to sell the production of RER electricity, this energy must be placed in the short-term market subject to its price. This price ought to be complemented with a premium to be determined by OSINERGMIN in case the marginal cost is lower than the estimated price.

Regarding the aforementioned price and premium, OSINERGMIN is the entity that will determine such amounts according to each kind of energetic source.

Granting geothermal rights

Geothermal sources authorization

This authorization allows the execution of exploration activities in a specific area of the Peruvian territory in order to search for geothermal sources. Holders of this authorization has preferential right for the granting of a concession. This authorization is valid for 3 years and can be extended for 2 additional years. The request for a concession in the explored area can be placed at any moment of this term.

Geothermal sources concession

The MINEM grants this kind of concessions in order to allow the execution of exploitation activities in a specific area where sources have been discovered during the exploration phase. These concessions are valid for 30 years from the publication of the correspondent Contract in El Peruano (state newspaper). Under some specific conditions, the term of this kind of concessions can be extended.

Climate change actions framework Law

The diversification of the energy matrix guided by a greater use of clean energy (RER) requires a joint action of all sectors of the country, therefore, in April of 2018 the Climate change actions framework Law was approved. The purpose of this Law is to establish principles, approaches and general provisions to coordinate, articulate, design, execute, evaluate and disseminate public policies in order to reduce the country's vulnerability to climate change, taking advantage of opportunities for low carbon growth. In this regard, we list some useful concepts below:

Climate change

Changes in the climate due to direct and indirect action of human beings, causing changes in the composition of the atmosphere, increasing the natural variability of the climate.

Adaptation to climate change

Process of adjustment to the current and foreseen climate and to its effects on environmental and human systems in order to moderate or avoid consequential damages or, in some cases, take advantage of its effects.

Mitigation of climate change

Human intervention to reduce the sources of greenhouse effect emissions or to enhance sinks (processes, mechanisms and activities that eliminate gases in the atmosphere) in order to limit the effects of climate change.

Resilience

Capacity of social, economic and environmental systems to face a dangerous situation, trend or alteration by reorganizing or giving an answer in such way that its characteristics, structure, identity or special functions are maintained and its capacity of adaptation, learning and transformation are preserved.



4 Secc B | Peruvian general fiscal terms

The economic attractiveness of a country is strongly influenced by the fiscal system that applies to oil (especially upstream), gas and energy activities. If tailored properly, fiscal terms are able to achieve the overall objective of collecting an adequate share of the economic benefit for the government generated by these indutries, while maintaining high levels of investments in the activities related to them.

Keeping in mind those objectives and considering that the levels of investment required in the early stages of those industries in itself involves a great associated risk, Peru has established a fiscal framework that promotes all types of private initiatives, and in parallel special tax incentives in order to reduce the tax impact of oil, gas and energy activities.

Basic aspects

Resident companies (incorporated in Peru), are subject to income tax on their worldwide taxable income. Branches and permanent establishments of foreign companies that are located in Peru and nonresident entities are taxed on income from Peruvian sources only.

Taxable income is generally computed by reducing the gross revenue by cost of goods sold and all expenses necessary to produce the income or maintain its source. Certain types of revenue, however, must be computed as specified in the tax law and some expenses are not fully deductible for tax purposes. Business transactions must be recorded in legally authorized acounting books that must be in full compliance with the International Accounting Standards (IAS). Contractors (Peruvian corporations and branches) –as an exception- are entitled to keep their accounting records in foreign currency as long as they receive and/or make foreign direct investment in foreign currency, according the requirements established by Supreme Decree No. 151-2002-EF and other rules for specific industries as mining, hydrocarbons and geothermal resources, but taxes must be paid in Peruvian Soles (PEN).

The general corporate income tax rate for fiscal year 2017 (onwards) is 29.5%.

In addition to this, Dividend Tax at a rate of 5% is imposed on distributions of profits to non residents and individuals by resident companies and by branches, permanent establishments and agencies of foreign companies.

This tax is generally withheld at its source. However, under certain circumstances, the company must pay the tax directly.

The mandatory closing date for business enterprises is December 31st. Tax returns must be filed between March and April according to the schedule established by the Tax Administration. Taxes and related penalties not paid by the due dates are subject to interest charges, which are not deductible for corporate income tax purposes.

Advanced payments

Companies and branches must make monthly advance payments of their annual corporate income tax. Advance payments will be equal to the greater amount that results from comparing the quotas obtained from the application of the following methods:

- Percentage method: by applying 1.5% to the total net revenue of the month.
- Ratio method: by dividing the tax calculated in the previous year by the total accrued net revenue of the same year and applying the ratio to the net accrued revenue of the month. This ratio must be multiplied by a factor of 1,0536 to determine advance payments in 2017 and January-February 2018.

Income Tax prepayments apply as credit against the annual income tax obligation or they are refunded at the end of the fiscal year (once the tax return is filed), if requested by the taxpayer.

Capital gains

Capital gains are treated as ordinary income. Under this consideration, capital gains

determined by resident entities are subject to a 29.5% tax rate.

Starting from January 1, 2016, capital gains derived from the sale of shares and other securities representing shares (i.e. ADR, GDR, and ETF) carried out through the Lima Stock Exchange are Income Tax exempt. To claim the exemption, the taxpayer and its related parties must not transfer more than 10% of the shares or "securities that represent shares" issued by the company whose shares are sold.

Shares should meet a liquidity threshold: 180 working days prior to their sale, they should have been traded at least in 27 days (not necessarily consecutive) for a daily fee of US$5,123 (equivalent to 4 Tax Units).

Under the latest Tax Reform, effective since January, 2017, the aforementioned exemption was extended to December 31, 2019.

Also, by means of this amendment other securities (bonds, participation certificates in Mutual Investment Funds, Real Estate Investment Trusts (REITs), Securitization Trusts for the Investment in Income of Real State, and Negotiable Invoices) have been included in the scope of this exemption, provided that they are listed and traded on the LSE, and (depending on each case) fulfill the other requirements states in Law No. 30341 and its regulations.

Capital allowances

Trade or business expenses

In general terms, all corporate expenses incurred in the generation of taxable income or the maintenence of its source are deductible for corporate income tax purposes. This rule is subject to certain exceptions and limitations expressly provided in the income tax law.

Tax depreciation

Depreciation rates apply to the acquisition cost of fixed assets. The following are some of the maximum annual depreciation rates allowed by Law:

Data processing equipment	25%
Machinery and equipment for construction, mining and oil activities	20%
Vehicles	20%
Machinery and equipment for other activities	10%
Buildings and constructions*	5%*
Other fixed assets	10%

*This is a fixed rate rather than a maximum rate.

Taxpayers may apply any depreciation method for their fixed assets other than buildings and constructions, as long as the resulting depreciation rate does not exceed the maximum rates stated above. In general, except for buildings and constructions, tax depreciation must match financial depreciation.

Valuation of inventory

Inventory is valued for tax purposes at the acquisition or production cost. Financial charges are not allowed to be part of the cost. Taxpayers may choose any of the following methods to calculate annual inventory for tax purposes, provided that the method is consistently used: first-in, first-out (FIFO), daily, monthly or annual average, specific identification, detailed inventory, and basic inventory.

Pre-operative expenses

Pre-operative expenses may either be expensed in the year production commences, or may be amortized over a period of up to ten years from the year in which production commences.

Early recovery VAT system

The early recovery VAT system allows obtaining an early recovery of the VAT paid on the acquisition of goods, services, construction contracts, importations, etc.; executed for carrying out taxable operations or exports. VAT is reimbursed through negotiable credit notes (which are redeemable in exchange for a check). This system prevents waiting to recover such amount from a client when the invoice, including VAT, for the sales of goods, services or construction contracts is issued to the client.

In other words, this regime provides relief of from financial costs (cost of money) for projects with a significant pre-operating stage and for which no advance invoice (transferring the VAT burden) can be issued periodically to the client.

The law provides a general and a specific early recovery system; each one with its own scope and requirements:

- General early recovery VAT system: This regime applies to companies that are in a preoperative stage, allowing them to recovery the VAT paid on the acquisition of capital goods. This regime does not require companies to sign an investment contract, nor specific amount of investment.
- Specific early recover VAT system: This regime applies to companies that are in a preoperative stage, and that also meet the following conditions: (i) they enter into investment contracts with Peruvian government, to invest in economic Industry; and (ii) they make a minimum investment commitment of US$5 million for projects with a preoperative phase of at least 2 years.

If the previous conditions are met, companies will be able to recover VAT paid on the acquisition or imports of capital or intermediate goods, services, and construction contracts. The use of one system does not preclude the possibility of using the other, as they have a different scope (items).

Definitive recovery VAT system

Under this regime, VAT paid on the acquisition of goods and services used directly in oil & gas exploration activities can be recovered without having to wait until a commercial discovery takes place or production begins. This regime will be applicable from the contract signing date until the end of the term of the exploration phase.

Goods and services included in the regime should be incorporated in a list and approved by the Ministry of Enery and Mines. The validity of this regime has been extended until December 31, 2018.

Amazon promotion investment regime

- VAT and ISC exemption on the sale of hydrocarbon products: oil & gas companies (principally those dedicated to oil refining and storage activities) located in the regions of Loreto, Ucayali and Madre de Dios will be VAT and ISC exempted when selling oil, natural gas and by-products to retailers or to direct consumers. For this purpose, it is required that retailers must also be located in the regions of Loreto, Ucayali and Madre de Dios, and should perceive third category income mainly from commercializing oil, natural gas and/or its byproducts. Direct consumers include corporations and individuals located in the regions of Loreto,

Ucayali and Madre de Dios, that perceive third category income due to activities different from hydrocarbon commercialization.

The law also states that retailers will only be allowed to sell the exempted hydrocarbon product to the public, or for its own consumption; and that the direct consumer will also be limited to use the exempted hydrocarbon product only for the activities carried out in the regions of Loreto, Ucayali and Madre de Dios.

Withholding taxes

Dividends

A dividend tax at a rate of 5% applies to profits distributed to nonresidents and individuals. The dividend tax applies to distributions by Peruvian companies, as well as to distributions made by Peruvian branches, permanent establishments and agencies from foreign companies. Peruvian Income Tax Law specifies various transactions that are considered as profit distributions for the purposes of the application of the dividend tax, including the distribution of cash or assets, the reduction of the capital of the company or the liquidation of the company.

This law also provides that if a resident company or branch, permanent establishment or agency, pays expenses that are not subject to further tax control or does not report any income, the amount of the payment or income will be subject to dividend tax (i.e. it will be treated as a deemed dividend distribution).

It should be noted that the effect of the reduction of the dividend tax rate combined with the increase of the corporate tax rate results in a total tax burden of 33.03% (approximately).

Interest

Interest paid to non-residents is generally subject to a withholding tax at a rate of 30%. For interest paid to unaffiliated foreign lenders, the rate is reduced to 4.99% if all the following conditions are satisfied:

- For loans in cash, the proceeds of the loan are brought into Peru as foreign currency through local banks or are used to finance the import of goods.
- The proceeds of the loan are used for business purposes in Peru.
- The participation of the foreign bank is not primarily intended to avoid the tax treatment applicable to transactions between related parties (i.e. the use of back-to-back loans is consequently precluded).
- The interest rate does not exceed LIBOR plus 7 points.

Technical Assistance Services

Payments for technical assistance services used within Peru are subject to withholding tax at an effective rate of 15%, regardless of the country the services are rendered. To ensure the application of the 15% rate, the local service recipient must obtain and present to the Tax Authorities upon request a report issued by an audit firm certifying that the technical assistance was effectively provided. However, this is only required when the fees under the corresponding agreement for the technical assistance exceed 140 tax units (each tax until is equivalent to PEN S/4,050 or approximately US$1,242).

Royalties

Peruvian source royalties paid for the use of intangible property are subject to withholding tax at an effective rate of 30%.

Indirect transfer of shares

Law No. 29757, which amended Law No. 29663 introduced a new category of Peruvian sourced income that may lead to a scenario under which a nonresident will be levied with income tax. Broadly, Law No. 29663 provides that 30% income tax is imposed on any capital gain realized upon the transfer of the shares of a company located outside Peru that, directly or indirectly, holds shares (or participation interests) in one or more Peruvian subsidiaries (i.e. an "indirect transfer") on one of the following situations:

- Where 50% or more of the fair market value of the nonresident holding company's shares is derived from the shares or participations representing the equity capital of one or more Peruvian subsidiaries at any time within the 12 months preceding the disposition.
- The overseas holding company is located in a tax haven or low- tax jurisdiction, unless it can be adequately demonstrated that the scenario described above did not exist.

New Law No. 29757, which amends Law No. 29663, clarifies that the transaction described

in the preceding paragraph will only be taxable where shares or participation interests representing 10% or more of the nonresident holding company's equity capital are transferred within the 12-month period. This means that the transfer of shares (or participations) representing

less than 10% of the nonresident holding company's equity capital are not subject to taxation in Peru even when 50% or more of the fair market value of those shares is derived from the shares (or participations) representing the equity capital of one or more Peruvian subsidiaries at any time within the 12 months preceding the dispositions.

Transfer pricing

Peru has adopted transfer pricing guidelines, based on the arm's-length principle. The accepted methods are the comparable uncontrolled price (CUP) method, the resale price method, the cost plus method and the transactional net margin, as well as other related methods based on margins. The OECD guidelines can be used as a complementary source of interpretation. Advance Pricing Agreements (APA) may be negotiated with the tax authorities.

In Peru, these rules do not only apply to transactions between local and international related parties, but also to transactions with entities that reside in tax havens. Note that adjustments to the value agreed between the related parties would apply only in the case where the value agreed between the parties would lead to an underpayment of taxes.

One or more legal entities are related parties if one of them participates directly or indirectly in the management, control or equity of the other entity, or whenever the same person participates directly or indirectly in the direction, control or equity of diverse related entities.

On 31 December 2016, Peru published Legislative Decree N°1312 amending the Peruvian transfer pricing (TP) reporting requirements by implementing the changes proposed by the OECD under BEPS Action 13 final report. The bill expands the TP documentation requirements by introducing an obligation to submit both a local file (2017) and a master file (2018), as well as the implementation of country- by-country reporting (2018), provided that certain revenue thresholds are reached. Failure to comply could result in penalties.

Regulations were enacted in November 2017 for the preparation and submission of the TP formal requirements.To a great extent, the contents of the local file, master file and the CbCR adopted in Peru are largely in line with the recommendations specified in Action 13 of the BEPS Action Plan. These three documents, taken together, will

require taxpayers to articulate consistent TP positions and will provide SUNAT with useful information to assess TP risks. They will also help the Peruvian Tax Authorities in determining where audit resources can most effectively be deployed, and, in event audits are called for, provide information to commence target audit inquiries. This marks a new era of TP documentation and disclosure requirements in Peru that is much more comprehensive, more detailed and more thorough than those required before, in terms of both depth and breadth.

Legislative Decree Nº 1312 also introduces revised guidance for pricing cross border commodity transactions. It provides that the CUP method can be the most appropriate transfer pricing method for commodity transactions between associated enterprises using a quoted price as a reference to determine the arm's length price.

These rules establish that the arm's length price for Peruvian income tax purposes shall be determined by reference to the quoted price of (i) the date of shipment of the commodities exported or (ii) the date of disembarkation of the commodities imported.

Additional guidance and clarification is expected to be established in forthcoming tax regulations as to the products that will be covered by these new transfer pricing rules, the commodity prices and quotes to be considered, the international market, the commodity exchanges or similar markets that may be taken as a reference, and finally the adjustments that shall be accepted to reflect the commodity features and the economically relevant characteristics of the particular transaction.

In addition, it introduces general transfer pricing guidelines for intra-group services and in particular for services that qualify as low value-adding intra-group services.

Specifically, it requires that the "benefit test" should be satisfied to demonstrate that the services were in fact received in order for the cost or expense to be deductible. The test will be met by considering whether an independent company in comparable circumstances would have been willing to pay for the activity if it was performed by an independent company or would have performed the activity in-house for itself.

The deduction of cost or expenses for services received should be determined based on the total cost and expenses incurred by the service provider entity, plus the applicable mark-up, for its deductibility.

The bill provides specific guidance relating to a particular category of intra-group services referred to as low value-adding intra-group services. In such cases, the provider of the services shall apply a profit mark-up of no more than 5% to the relevant costs incurred in performing the low value-adding services.

Low value-adding intra-group services for the purposes of this approach are services performed by one member or more than one member of an MNE group on behalf of one or more other group members which

- Are of a supportive nature
- Are not part of the core business of the MNE group
- Do not require the use of unique and valuable intangibles and do not lead to the creation of unique and valuable intangibles, and
- Do not involve the assumption or control of substantial risk by the service provider and do not give rise to the creation of significant risk for the service provider.

The tax regulations will provide examples of services that would likely meet the definition of low value-added services.

Controlled Foreign Corporation Rules (CFC Rules)

As of January 1, 2013, the "International Fiscal Transparency Regime" is applicable to all

Peruvian residents who own a "controlled foreign corporation" (CFC). Under these rules, passive income earned by CFC's in other jurisdictions, must be included and recognized in the taxable income of resident taxpayers in Peru, even though there has been no effective distribution.

A non-resident subsidiary company will constitute a CFC of a Peruvian company if:

- The Peruvian company owns more than 50 percent of the subsidiary's equity, economic value or the voting rights.
- The non-resident entity must be a resident of either: i) a tax haven jurisdiction; or, ii) a country in which passive income is either not subject to CIT or is subject to a CIT that is equal or less than 75% of the CIT that would have been applicable in Peru.

For the application of this Regime, the Law has established an exhaustive list of items that qualify as passive income (i.e. dividends, interest, royalties, capital gains from the sale of properties and securities, etc.).

Tax treaties

Peru has entered into a multilateral tax treaty with the Andean Community countries (Bolivia, Colombia and Ecuador), which calls for exclusive taxation at source and double tax treaties with Brazil, Chile, Canada, Mexico, South Korea, Portugal and Switzerland.

The principal purpose of this double tax treaty network is to prevent taxes from interfering with the free flow of international trade and investment by mitigating international double taxation with respect to certain income items.

This, however, is not a static list. Some existing treaties are still under renegotiation and others are in various stages of negotiation with countries such as France, Italy, Thailand, Sweden, Singapore and the UK.

Except for the double tax treaty with the other Andean Community countries, tax treaties entered into by Peru generally follow the OECD Model, although they incorporate provisions from the UN Model, to give more weight to the source principle than does the OECD Model.

Each of the treaties currently in force between Peru and other countries deals with the same matters. Many of the treaties contain common provisions addressing the same issue. It should, however, be noted that Peru's tax treaties show a remarkable degree of individuality, considering that almost every treaty is different in at least some respects. For that reason, it is essential to analyze the specific treaty that may apply to a particular tax issue.

Financing considerations

Thin capitalization

Debt to equity rule: Interest on loans from related parties in excess of a 3:1 debt to equity ratio is not deductible.

Indirect taxes

A 18% Value Added Tax (VAT) applies to the following transactions:

- Sale of goods within Peru.
- Services performed or used within Peru.
- Construction contracts performed within Peru.
- First sale of real estate by the builder.
- Importation of goods from outside Peru, regardless of the status of the importer.
- VAT paid upon acquisition of goods or services can be deducted from VAT related to the sale of finished products or services.

Exporters are reimbursed for any VAT paid on the acquisition of goods and services. Also, exporters can apply such reimbursement as a credit to offset VAT or income tax liabilities.

Selective Consumption Tax (i.e. Luxury Tax or "Impuesto Selectivo al Consumo")

The selective consumption tax (ISC) applies to luxury goods such as jewelry, cars, cigars, cigarettes, liquor, soft drinks, fuel, etc. ISC rates range from 10% to 100 , generally based on the CIF (imports) or sale value, depending on the goods. However, for certain goods, such as soft drinks and fuel, the ISC is calculated on a specific basis depending on the amount of goods sold or imported.

Taxable persons for ISC purchases are producers and economically related enterprises engaged in domestic sales of listed goods, importers of listed goods, importers and economically related enterprises engaged in domestic sales of listed goods and organizers of gambling activities.

Liability to ISC arises under the same rules that apply to VAT.

To avoid double taxation, a credit is granted for the ISC paid on imports and in other specific cases.

Custom Duties

- Rates and Tax bases

The applicable customs duties and taxes are summarized below:

Tax	Rate	Tax bases
Custom Duties*	0%, 6% and 11%	CIF Value**
VAT	18%	CIF Value + Customs Duties + Excise Tax (if applicable)

* Customs Duties rates depend on the kind of items imported. Capital goods are generally subject to a 0% rate.

** World Trade Organization (WTO) rules are applicable to arrive to customs value.

International Free Trade Agreements and other commercial agreements

The main agreements executed by the Peruvian government in order to gain access to international markets are the following:

Andean Community (CAN):

Peru fully enjoys the benefits from the free trade zone established by this agreement for all its member countries (Bolivia, Colombia, Peru and Ecuador). Since Venezuela is no longer a member of the CAN, Peru has celebrated a Bilateral Agreement with Venezuela, which has been in force since August, 2013. Also, Peru, as member of the Andean Community, has other obligations and commitments regarding other topics besides the free trade zone.

Southern Common Market (Mercosur):

Partial agreements executed by the Peruvian government with each of the member countries (Brazil, Argentina, Paraguay and Uruguay) are in force. By means of the aforementioned agreements, Peru and Mercosur member countries have reciprocally granted each other preferential customs duty rates.

Pacific Alliance

Peru, Mexico, Colombia and Chile are members of the Pacific Alliance which grants their goods preferential tariff treatment

as long as they meet certain requirements, including origin and direct expedition.

Bilateral Free Trade Agreements

Bilateral Free Trade Agreements with the United States, Canada, China, Chile, EFTA States (Iceland, the Principality of Liechtenstein, the Kingdom of Norway and the Swiss Confederation), Mexico, Japan, Singapore, Thailand, Republic of Korea, Panama, European Union, Costa Rica and Honduras are already in force. In addition, Peru has celebrated the Partial Agreement with Cuba (ACE 50).

In order to apply these preferential treatments, goods must meet certain requirements, including origin and direct expedition requirements.

Peru has also concluded Free Trade Agreement negotiations with Australia, Brasil and Guatemala, as well as with

the Trans Pacific Partnership Agreement´s members (Australia, Brunei Darussalam, Canada, Chile, Japan, New Zealand, Singapore, United States (under review), Malaysia, Vietnam and Mexico).

Furthermore, Peru maintains negotiations with Turkey, El Salvador, India and is negotiating the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (with Australia, Brunei Darussalam, Canada, Chile,

Japan, New Zealand, Singapore, Malaysia, Vietnam and Mexico), which incorporates the provisions of the Trans-Pacific Partnership Agreement and suspends the application of some of those provisions (such as intellectual property) set out in the Annex to this Agreement.

Finally, it is important to mention that Peru is a founding member of the World Trade Organization (WTO). Therefore, the WTO's regulations regarding antidumping practices, subsidies, countervailing duties and service market liberalization, among others, are applicable in Peru.

Worker's profit

Employers are required to distribute a share of their profits among their employees. The rate depends on the company's activity, as follows:

- Fishing – 10%
- Telecom – 10%
- Industry – 10%
- Mining – 8%, including exploitation of coal mines; production of petroleum and natural gas; and extraction of iron, uranium, thorium, iron-free minerals, construction stone, clay, talc, sand and gravel, feldspar and salt.
- Commerce and restaurants – 8%
- Other – 5%, including farming, stockbreeding and forestry; production and distribution of electricity; production of gas; transportation services and services related to air transportation (such as travel agencies, storage and deposit); financial services of insurance and real estate; legal, audit and accounting activities; business consulting, consulting related to informatics and data processing; and advertising, health and medical services, and education.

Many oil & gas companies calculate this employee benefit using the 5% rate that applies to the "other" group of activities. This has been a matter of discussion at the judiciary level.

Profit sharing is calculated on pretax income, and the amount is deductible as an expense for determining income tax. An example of the combined-effect calculation using a 5% profit-sharing rate is as follows:

- Net income: 100
- Profit sharing: 5
- Net income for CIT purposes: 95
- Income tax (30 * of 95): 28.5
- Combined effect: 28.5 + 5 = 33.5 (33.5% of net income)

*Tax Rate plus 2% premium aapplicable to upstream oil & gas and mining activities.

The amount paid is allowed as a tax deduction for corporate tax purposes. Not all foreign

governments recognize this as a creditable tax and as such double taxation can occur.

General Anti-Avoidance Rule

As of July 19, 2012, an anti-avoidance rule was introduced in the Peruvian Tax Code to assist the Tax Administration in responding to situations of tax avoidance and simulated transactions.

Indeed, when facing tax avoidance situations, the Tax Administration will be able to coercively request the corresponding tax debt, reduce tax credits, tax losses or eliminate a tax benefit (including the restitution of the taxes unduly refunded). To exercise powers under the GAAR, Tax Administration must determine that the taxpayer has: a) performed artificial or improper acts to achieve a specific tax result - whether individual or jointly with others; and, b) the use of such artificial or improper acts creates legal or economic results different than regular tax savings obtained from the routine or proper acts.

Despite the aforementioned, recently the government has suspended the application of the General Anti-avoidance Rule, with exception of the provisions of the first and last paragraphs, to acts,

facts and situations produced prior to July 19, 2012.

Other tax issues.

Tax Unit (UIT)

The UIT is the reference value employed for tax purposes to determine the taxable income, deductions and penalties, between others. This value is modified every year. For the year 2018, the UIT amounts to PEN S/4,150.00 (US$1,273 aprox.)

Temporary net assets tax

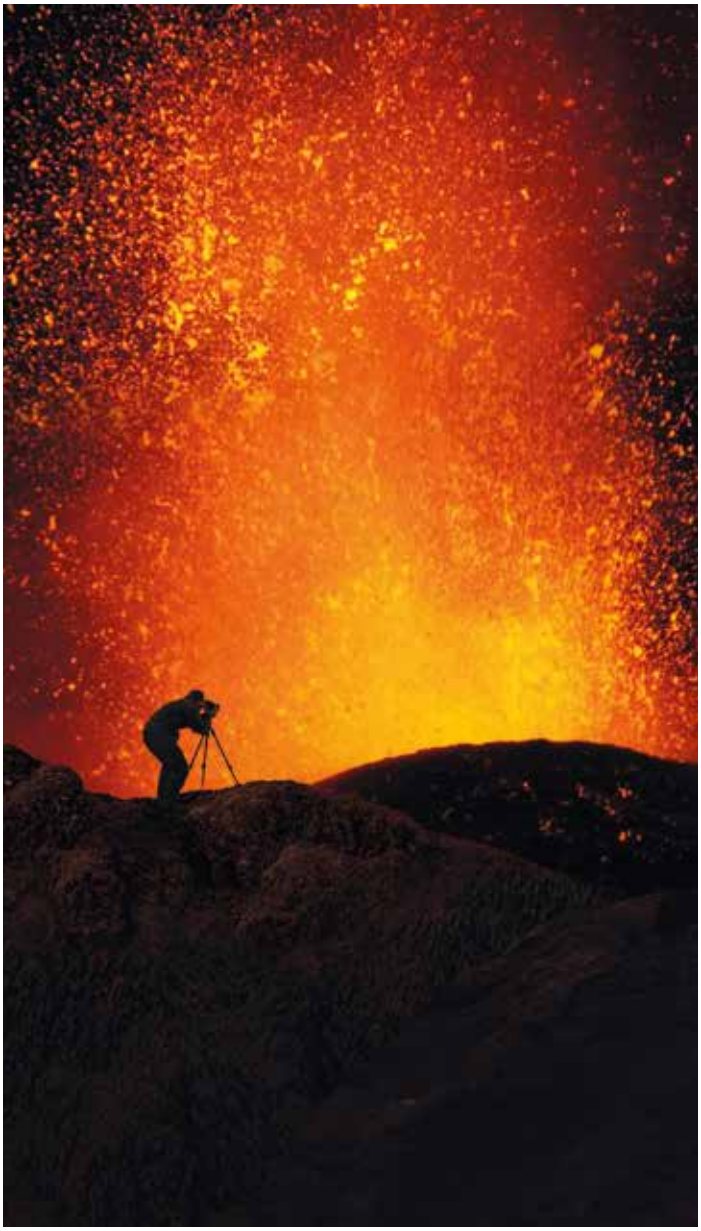
The Temporary Net Assets Tax (ITAN) is equivalent to 0.40% of the value of total assets determined as of December 31st of the previous year over PEN S/1,000,000. The amount paid is usable as credit against the Corporate Income Tax, or subject to refund.

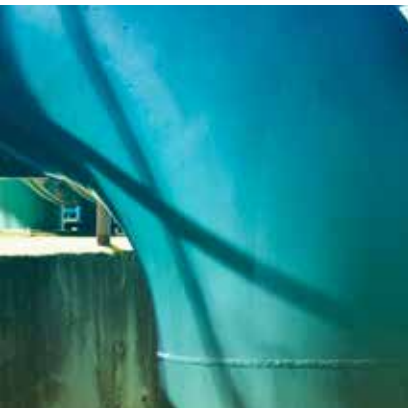
Pre-operative entities are exempt from of this tax, during their first year of operations, but will be subject to the tax the following year.

Tax on financial transactions

A 0.005% tax is generally imposed on debits and credits in Peruvian bank accounts.

- Stamp tax
  Not applicable.
- Exchange controls
  Not applicable.





4 Secc C | Special fiscal rules

01

Oil & gas

At a glance

The fiscal regime that applies to the oil & gas industry in Peru consists of a combination of corporate income tax, royalties and other levies.

Hereunder, we provide a brief char on this matter:

Income Tax rate	29.50%(1)(2)
Hydrocarbon Royalties	5% imposed on the value of the hydrocarbons produced in certain block
Capital allowances	Ring-fence rules and preoperative investment amortization
Investment incentives	Tax losses can be carried forward for 4 years or indefinitely; stabilization agreements; VAT recovery; VAT exemptions on imports of goods for exploration activities

(1) Oil & gas companies with license or service agreements are subject to a 2% premium. These 2 points should be added to the current Income Corporate Tax rate, resulting in an Income Tax rate of 31.5%.

(2) In addition, they must pay a 5% employee profit sharing.

In general terms, oil & gas companies are subject to the general corporate income tax regime; nevertheless, there are certain special tax provisions for the oil & gas sector.

Special rules for investments in hydrocarbon activities

Hydrocarbon law provides that exploration and development expenditures, including the investment contractors may make up to the production date (when the commercial extraction of hydrocarbon starts) can be accumulated in an account. At the contractor's option and regarding each contract, the amount is amortized using either of the methods below:

- On the basis of the production unit.
- Through linear amortization, deducting the expenditures in equal portions during a period of no less than five fiscal years.

Any investments in a contract area that did not reach the commercial extraction stage and that were totally released, can be accumulated with the same typeof investments made in another contract that is in the process of commercial extraction. These investments are amortized in accordance with the amortization method chosen in the letter contract.

If the contractor has entered into a single contract, the accumulated investments are charged as a loss against the results of the contract for the year of total release of the area for any contract that did not reach the commercial extraction stage, with the exception of investments consisting of buildings, power installations, camps, means of communication, equipment and other goods that the contractor keeps or recovers to use in the same operations or in other operations of a different nature.

Once commercial extraction starts, all amounts corresponding to disbursements with no recovery value are deducted as expenses for the fiscal year. Expenses with no recovery value occur at the start of commercial extraction for the following purposes:

- Investments for drilling, completing or producing start-up wells of any nature, including stratigraphic ones, and excluding acquisition costs of surface equipment.
- Exploration investments, including those related to geophysics, geochemistry, field geology, gravimetry, aerophotographic survey and seismic surveying, processing and interpreting.

The Manual of Accounting Procedures to be filed before Perupetro must detail the accounts considered as expenditures without any recovery value.

Ring-fence rules for oil & gas contracts

The contractor determines the tax base and the amount of the tax, separately and for each contract. If the contractor carries out related activities (i.e., activities related to oil & gas, but not carried out under the terms of the contract) or other activities (i.e., activities not related to oil & gas), the contractor is obligated to determine the tax base and the amount of tax separately and for each activity.

The corresponding tax is determined based on the income tax provisions that apply in each case (subject to the tax stability provisions for contract activities and based on the regular regime for the related activities or other activities).

The total income tax amount that the contractor must pay is the sum of the amounts calculated for each contract, for both the related activities and for the other activities. The forms to be used for tax statements and payments are determined by the tax administration.

If the contractor has more than one contract, it may offset the tax losses generated by one or more contracts against the profits resulting from other contracts or related activities. Likewise, the tax losses resulting from related activities may be offset against the profits from one or more contracts.

It is possible to choose the allocation of tax losses to one or more of the contracts or related activities that have generated the profits, provided that the losses are depleted or are compensated to the limit of the profits available. This means that if there is another contract or related activity, the taxpayer can continue compensating tax losses until they are totally used.

A contractor with tax losses from one or more contracts or related activities may not offset them against profits generated by the other activities. Furthermore, in

no case may tax losses generated by the other activities be offset against the profits resulting from the contracts or from the related activities.

Hydrocarbon Royalty

As mentioned before, oil & gas exploration and production activities are conducted under license or service contracts granted by the Government. Under a license contract, the investor pays a royalty, while under a service contract, the Government pays remuneration to the contractor.

In both cases, however, the distribution of the economic rent (royalty or remuneration) between the Government and the investor is determined based on the following methodologies:

▸ *Production scales*

This methodology establishes a percentage of royalty (or brackets of royalties starting at 5) over certain scales of production (volume of barrels per calendar day) for the fiscalized liquid hydrocarbons and the fiscalized natural gas liquids, and other royalty percentages for the fiscalized natural gas for each valuation period.

Note that the fiscalized hydrocarbons (i.e. liquid hydrocarbons, natural gas, etc.) means those produced and measured in a specific fiscalized production point set between the investor and the Government in order to establish the quality and volume of hydrocarbons, according to API (American Petroleum Institute) and ASTM (American Society for Testing and Materials) regulations.

Based on the scales of production, the percentage of royalty is:

Scales of production (per barrels per calendar day)	Percentage of royalty
< 5	5%
5-100	5% to 20%
> 100	20%

▸ Economic results (RRE)

According to this methodology, the royalty percentage is the result of adding the fixed royalty percentage of 5% to the variable royalty percentage. The variable royalty percentage is calculated once the ratio between revenues and expenditures, as of the previous year, is at least 1.15. The variable royalty will be applicable in a range between 5% and 20%.

▸ Other Methodologies

"R" Factor and Cumulative Production per Oil Field with price adjustments are alternative methodologies. In the case of "R" Factor, the royalty is calculated by applying a ratio between revenues and expenditures within a certain period established in the contract. For these purposes, the minimal percentage of royalty is:

"R" Factor	Percentage of royalty
▸ From 0.0 < 1.0	15%
▸ From 1.0 < 1.5	20%
▸ From 1.5 > 2.0	25%
▸ From 2.0 or more	35%

The definitive percentages will be negotiated and established in each Contract.

On the other hand, in the case of Cumulative Production per Oil Field with price adjustments, the royalty is calculated based on a specific percentage per Oil Field of a Contract. The royalty is adjusted based on two factors: the cumulative production of each Oil Field and the average price per barrel of such production.

Hydrocarbon royalties paid by oil & gas companies shall be considered a deductible expense for income tax purposes.

Incentives

▸ Relief for losses (consolidation of losses on hydrocarbon activities):

Tax losses can be carried forward and offset against net income derived in future fiscal years.

The provisions currently in force require the taxpayer to elect one of the following procedures to offset the tax losses:

- Offset the total net tax losses from Peruvian sources incurred in a tax year against net income derived in the four fiscal years following its generation. The amount of losses not offset after this term is cancelled.
- Offset the total net tax losses from Peruvian sources obtained in the tax year against 50% of the net income obtained in the following years, without limitation.

The election should be made when the annual income tax return is filed and it cannot be changed until the accumulated losses are fully utilized.

Loss carrybacks are not allowed.

- Special incentives for hydrocarbon investors:

Stability regime

The Organic Law for Hydrocarbons and the related tax regulations foresee that the signing of an oil & gas agreement implies the guarantee that the tax regime in effect at the date of signature will not be changed during the life of the contract. This is intended to preserve the economy of the contract so that no further tax costs are created for the contractors.

The signing of an agreement for the exploration or exploitation of a block "freezes" the tax regime in force at the date in which the contract is signed for the entire contract applicable term. Taxes covered by this provision are the taxes in which the responsibility rests on the contractor as a taxpayer.

Specifically, tax stability covers the following:

- Income Tax, but an additional two percentage points must be applicable to the rate in force at the signing date (i.e. current Income Tax rate of 29.5% plus 2%). Taxes that affect profit distributions arising from the contract activities (i.e., dividend tax or branch profits tax) are also covered by the tax stability.
- Indirect taxes (Value Added Tax, Municipal Promotion Tax, and Selective Consumption Tax), but only as to its transferable nature.
- Tax exemptions and other tax benefits, but subject to the term and conditions established in the provision that contain such benefits.
- Tax recovery regimes, temporal admission regimes, export regimes and other related.

It is important to note that tax stability is, in essence, granted for the contract activities and not directly for the entities that signed the contract. Therefore, changes in the contractor's ownership will not affect the tax stability. The tax stability only covers the contract activities (i.e., the exploration and exploitation of hydrocarbons) and no other related or distinct activities that may be performed by the legal entity (e.g., downstream activities). Revenues obtained from the sale or exports of the extracted hydrocarbon are included in the activities covered with tax stability.

Peru's tax system has included certain specific rules for oil & gas companies (ring fence rules, expense amortization, etc.)

▸ Special custom duties:

VAT exemptions on import of goods for the exploration phase

The import of goods and supplies required for carrying out exploration activities in the exploration phase is exempted from all taxes. The list of goods to which this exemption applies is published by the Ministry of Economy and Finances (MEF).

This exemption will not be applicable if the imported goods are used in other activities rather than exploration or if they are sold to third parties, unless:

- They are sold or delivered to third parties for use in exploration activities.
- They are re-exported with the previous authorization of Perupetro.
- They are used in exploration activities during the exploration phase of another hydrocarbon contract for the same contractor.
- They are sold or delivered to a company authorized to import those goods free from all taxes. It is important to mention that this must be previously communicated to the Customs Administration.

Temporary importation

Goods required for the execution of hydrocarbon contracts may be brought into Peru on a temporary basis for a period of 2 years without the payment of duty or taxes and re-exported afterwards in the same state as they were at import. This term can be extended for a one-year period, up to two times.

There are conditions placed on temporary imports. The most important condition is that you export the goods within the time limits approved. In addition, a guarantee needs to be filed at the time of import.

The guarantee is an amount equal to the duty and taxes that would have been payable at import, plus compensatory interests. If the goods are not exported within

the time limit you will have to pay an amount equal to the duty and taxes that would have been payable when you first imported the goods, as if the goods had not been treated as temporary imports, plus interests.

Selective Consumption Tax (ISC)

On May 9, 2018, Supreme Decrees approved by the Ministry of Economy and Finance were published, by means of which modifications have

been introduced regarding the goods affected by the Selective Consumption Tax –among them fuels- and the applicable tax rates. These modifications became effective the day after they were published.

In the case of fuels, the modifications were approved taking into account the Index of Noxiousness of Fuels prepared by the Ministry of Environment, in order to discourage the consumption of fuels that pollute the most and encourage the substitution of less polluting ones, and the use of cleaner technologies. Users must pay more taxes for using one fuel more polluting than another.

Selective Consumption Tax applicable to fuels

Tariff heading	Products	S/ per gallon	US$per gallon*
2701.11.00.00	Anthacites for energetic use	51.72 (per ton)	170.16
2701.12.00.00- 2701.19.00.00	Bituminous coal for energetic use, and other coals	55.19 (per ton)	181.58
2710.12.13.10 2710.12.19.00 2710.12.20.00 2710.20.00.90	Gasoline for motors with Research Octane Number (RON) less than 84	1.27	0.39
2710.12.13.21 2710.12.19.00 2710.12.20.00 2710.20.00.90	Gasoline for engines with RON equal or over 84, but less than 90, and with 7.8% volume of fuel alcohol	1.22	0.37
2710.12.13.29 2710.12.19.00 2710.12.20.00 2710.20.00.90	Gasoline with RON equal or over 84, but less than 90	1.27	0.39
2710.12.13.31 2710.12.19.00 2710.12.20.00 2710.20.00.90	Gasoline for engines with RON equal or over 90, but less than 95, and with 7.8% volume of fuel alcohol	1.16	0.35
2710.12.13.39 2710.12.19.00 2710.12.20.00 2710.20.00.90	Other fuels with RON over or equal to 90 but less than 95	1.21	0.37
2710.12.13.41 2710.12.19.00 2710.11.20.00 2710.20.00.90	Gasoline for engines with RON equal or above 95, but less than 97, and with 7.8% volume of fuel alcohol	1.13	0.34
2710.12.13.49 2710.12.19.00 2710.12.20.00 2710.20.00.90	Other fuels with RON over or equal to 95 but less than 97	1.17	0.36
2710.12.13.51 2710.12.19.00 2710.1.20.00 2710.20.00.90	Gasoline with RON equal or above 97 and engines with 7.8% volume of fuel alcohol	1.13	0.34
2710.12.13.59 2710.12.19.00 2710.12.20.00 2710.20.00.90	Other fuels with RON equal or above 97	1.17	0.36
2710.19.14.00 / 2710.19.15.90	Kerosene and Jet Fuels (Turbo A1), except certain sales in the country or imports for airships.	1.93	0.59
2710.19.21.10 / 2710.19.21.90	Gasoils, except Diesel B2	1.47	0.45
2710.19.21.11 / 2710.19.21.99	Gasoils	1.58	0.48

Tariff heading	Products	S/ per gallon	US$per gallon*
2710.19.21.11 / 2710.19.21.99	Rest of gasoils, except Diesel B2 and Diesel B5	1.26	0.38
2710.19.21.20	Diesel B2	1.44	0.44
2710.19.21.21	Diesel B2 with sulfur content equal or below 50 ppm	1.04	0.32
2710.19.21.29	Rest of Diesel B2	1.24	0.38
2710.19.21.31	Diesel B5 with sulfur content equal or below 50 ppm	1.01	0.31
2710.19.21.39	Rest of Diesel B5	1.20	0.36
2710.19.22.10	Residual 6, except sales in the country or imports by certified seacraft fuel marketers.	0.92	0.28
2710.19.22.90	Other fuels	1.00	0.30
2710.20.00.11	Diesel B2 with sulfur content equal or below 50 ppm	1.70	0.52
2710.20.00.12 / 2710.20.00.13	Diesel B5 and Diesel B20 with sulfur content equal or below 50 ppm	1.49	0.45
2710.20.00.19	Other mixes of Diesel B2 with Biodiesel B 100	1.70	0.52
2711.12.00.00 / 2711.19.00.00	Liquefied Oil Gas	0.00	0.00

*US$1 = S/3.29

- Reimbursement on oil products acquisitions:

Oil & gas companies located in the region of Madre de Dios can obtain a reimbursement on the ISC that levied their oil products acquisitions.

In both cases, oil & gas companies should be located in the mentioned regions, be registered in the Public Registry of such location, and must have more than 70% of its shares and/or activities in the Amazon region. These requirements do not apply to oil & gas extractor and refining companies.

Special Contributions

- Osinergmin Contribution

Oil & gas companies that import or produce fuels, including liquefied petroleum gases and natural gas, or carry out transportation and distribution activities should pay this contribution to the Supervisory Body of Private Investment in Energy and Mines (OSINERGMIN). The rate of this contribution is 0.36 % for 2017, 0.35 % for 2018 and 0.34% for 2019 (for import or production activities) and 0.57% for 2017, 0.56% for 2018 and 0.55% for 2019 (for transport and distribution activities), applied on their monthly billing after deducting VAT.

- OEFA Contribution

Oil & gas companies that import or produce fuel, including liquefied petroleum gases, or carry

out transport and distribution activities should pay this contribution to the Enviromental Audit and Evaluation Agency (OEFA). The rate of this contribution for years 2017-2019 is 0.09% (for import or production activities) and 0.11% (for transport and distribution activities) applied on their monthly billing after deducting VAT.

- FISE Contribution

The Energetic Social Inclusion Fund (FISE) is a fund established by the Peruvian State, which originally worked as a mechanism to promote the inclusion of the population in need to the supply of energy, with the following objectives:

1. To massify natural gas for housing and vehicle purposes
2. Extend the energy frontier by the use of renewable energy
3. Generate access to LPG to vulnerable sectors of the population
4. Work as a compensation mechanism related to residential electricity

Its financing sources come from the great electricity consumers (mining and industry, mainly), natural gas transport service through pipelines (Camisea), and production and imports of fuels. The hydrocarbon and electricity companies, which carry out these activities, are responsible for collecting these contributions and transferring them to the Supervisory Body of Private Investment in Energy and Mines (OSINERGMIN).

OSINERGIM is the entity in charge of managing these contributions. The FISE contribution can be executed in any of the aforementioned goal through a myriad of diverse energy projects established by the Energy and Mines Ministry.

Recently, the Government issued Legislative Decree No. 1331, by means of which it added dispositions in order to expand the application of FISE goals.

Certainly, with the implementation of those dispositions, funds from FISE could now be used to finance connections to the gas supply that may be available by new distribution concessions.

In this way, natural gas distribution concessions through pipelines could benefit from FISE by the promotion of gas connections subsidized with funds from the latter.

02

Energy

In general terms, electricity companies are subject to the general corporate income tax regime described previously; nevertheless, there are certain special tax provisions for the electricity generation with water resources and other renewable resources. In addition, certain benefits have been approved for holders of geothermal resources concessions.

All these special rules have been approved in the framework of the energy matrix diversification policy, articulating the instruments of environmental management with the promotion and development of a low carbon economy, promoting relations and coherence between the regulatory policy of clean energy use in development of any private initiative and the tax policy.

Accelerated depreciation benefit

The generation of electricity with renewable resources such as, hydroelectricity is characterized by low production costs (operating stage) but very high investment costs (construction stage), compared to other types of technologies. Certainly, the large hydroelectric plants have a construction period that on average is 4 to 5 years and an investment cost per MW of installed power quite expensive, between US$1.2 to 1.4 million, compared with other technologies such as the natural gas thermoelectric plants that have a construction period between one year and a year and a half and average investment cost of US$0.4 million per MW, which makes the hydroelectric plants a long-term business.

On average, a large hydroelectric plant operates only in the sixth year in order to obtain profits from the sale of electricity, however, gas thermal power plants begin to make their business profitable in two years from the beginning of the investment. Thus, a hydroelectric power station has a construction time and an investment cost three times greater than that of thermal power plants. This situation required the creation of fiscal incentives to guide investment in the construction of hydroelectric power plants, instead of thermal power plants.

Considering that investors make decisions evaluating lower costs and shorter periods of investment recovery, the benefit of accelerated depreciation was approved in 2008 for projects that use renewable energy as source for generating electricity.

Legislative Decree No. 1058 provides that accelerated depreciation shall be applicable to the machinery, equipment and civil works necessary for the installation and operation of the plant, which are acquired and / or constructed. For these purposes, the annual depreciation rate will be no greater than 20% as annual global rate, and the rate may be changed annually by the holder

of the generation concession prior communication to the Tax Administration (SUNAT).

This benefit will be valid until December 31, 2025.

Guarantees of investment promotion in geothermal resources

The only renewable resource that has a special promotion law is geothermal energy. Law No. 26848 and its Regulations establish special rules for holders of geothermal resources concessions, which are pretty similar to the fiscal rules provided for oil operations described above.

When these holders are branches of companies incorporated abroad, the income tax will only be collected on their taxable income from a Peruvian source.

Stability regime

The State guarantees to the holders of geothermal rights that the tax regime in force at the moment that the authorizations are granted or the contracts for the geothermal resources concession are signed, will remain unchanged during the validity of the same for the purposes of each authorization or concession contract. As in the oil industry, taxes covered by this provision are the taxes in which the responsibility rests on the contractor as a taxpayer.

Ring fence rules for activities of exploration or exploitation of geothermal resources

The holders of authorizations and concessions that carry out activities of exploration or exploitation of geothermal resources, in more than one concession contract and that also develop other activities related to geothermal resources and related energy activities, will determine the results of each exercise independently by each contract and for each activity for the purpose of calculating the income tax.

If one or more concession contracts or activities generate carryover losses, these may be compensated with the profit

generated by another or other concession contracts or related activities, at the option of the concessionaire. This means that if there is another contract or related activity, the taxpayer can continue compensating tax losses until they are totally used.

The corresponding tax is determined based on the income tax provisions that apply in each case (subject to the tax stability provisions for contract activities and based on the regular regime for the related activities or other activities).

Investments amortization

Exploration expenses, as well as the investments made by concession holders until the date on which the commercial exploitation of the geothermal resources begins, including the cost of the wells, will be accumulated in an account whose amount, at the option of the owner and for each contract, will be amortized based on the production unit; or by linear amortization, deducting them in equal portions, for a period of not less than five years per year.

The concession contract must specify the amortization method used by the owner, which can not be varied. In the case of opting for the linear amortization method, the period in which the amortization will be made must be agreed in the same contract. The depreciation made by the holders must be communicated to the Tax Administration (SUNAT).

Once commercial exploitation starts, all items corresponding to expenses that have no recovery value will be deducted as an expense for the year. The wear that suffered depreciable assets will be compensated through the deduction of penalties that will be computed annually, according to the common system of income tax, on the date of subscription of each contract.

The expenses for services rendered by non-domiciled entities shall be deductible from income tax subject to compliance with the requirements established in the respective regulations.

Note that the investments made in a concession contract, in which the commercial exploitation stage has not been reached, can be accumulated to the same type of investments made in another contract in which this stage has been reached and the total will be amortized in accordance with the amortization method chosen in the contract.

Special custom duties: Importation

The importation of goods and supplies required by the holders of geothermal resources authorizations for exploration activities, are exempt from all taxes, including those that require express mention, for the duration of such authorization, according to the list of goods to be approved by Supreme Decree.

Holders of geothermal rights may not export the goods entered under the exemption regime described before, nor may they be used for other purposes, except as provided in the General Customs Law and its regulations.

Special Contributions

Osinergmin Contribution

Electricity companies that are holders of generation, transmission and distribution concessions of electric power, as well as of the entities that exclusively develop generation activities through authorization, should pay this contribution to the Supervisory Body of Private Investment in Energy and Mines (OSINERGMIN). The rate of this contribution is 0.52 % for 2017, 0.51% for 2018 and 0.50% for 2019, applied on their monthly billing after deducting VAT.

OEFA Contribution

Electricity companies that are holders of generation, transmission and distribution concessions of electric power, as well as of the entities that exclusively develop generation activities through authorization, should pay this contribution to the Enviromental Audit and Evaluation Agency (OEFA). The rate of this contribution for years 2017-2019 Is 0.11 % applied on their monthly billing after deducting VAT.

FISE Contribution

As we described for the oil industry, FISE is a national fund for promoting the inclusion of the population in need to the supply of energy, whose financial incomes come from the surcharge on the monthly billing of the great electricity consumers (mining and industry, mainly). Thus, the companies that provide electricity to this group of consumers are responsible for collecting these contributions and transferring them to the Supervisory Body of Private Investment in Energy and Mines (OSINERGMIN).

FOSE Contribution

The Electric Social Compensation Fund (FOSE) is aimed at allowing access and permanence of electricity service to all residential users of the public electricity service whose monthly consumption is less than 100 kilowatt hours per month included in the BT5 tariff, residential tariff or the one that later replaces it.

Its financing source comes from a surcharge on the monthly billing of power, energy and fixed monthly charges invoiced to public electricity service users of the interconnected systems not included in the scope of FOSE beneficiaries. This surcharge will be established based on a percentage that will be determined by the Supervisory Body of Private Investment in Energy and Mines (OSINERGMIN) based on the sales projection of the following period. OSINERGMIN is the entity in charge of managing these contributions.

The electricity distribution companies must present to OSINERGMIN a detailed monthly settlement of the surcharge for FOSE transferred to energy consumers because they are the responsible for collecting these contributions and transferring them to OSINERGMIN.

Miscellaneous matters

5

01

Labor legislation

Hiring personnel

Indefinite term contracts are the legal default scheme for hiring in Peru, although as an exception, fixed term contracts can also be signed. The fixed term contracts require an objective cause established by the law to enter into this type of contracts (for example, start up of a new business, works or specific services, substitution, etc.) and its validity is subject to compliance with certain formal requirements.

These contracts provide employees with all the rights and benefits granted to employees hired for an indefinite term.

There are also other types of hiring schemes that grant different benefits, such as Labor Training Modalities or the Law that Promotes Youth Access to the Labor Market and Social Protection, among others.

The trial period is counted from the first day of the labor relationship and must have a maximum term of: i) three months for all employees in general; ii) six months for qualified or confident personnel, and iii) 12 months for management personnel.

Once this period is completed, the employees are regarded as permanent and can only be dismissed under circumstances concerned with their behavior at work or their ability to carry out their duties.

Termination of employment contract

In accordance with the Peruvian Legislation, employees are protected against arbitrary dismissal.

In the event of unjustified dismissal, an employee may claim a severance payment equivalent to one and a half months salary per year of service (under an indefinite term working contract); or, one and a half months salary per pending month (under a fixed term work contract).The maximum severance payment is twelve salaries. Alternatively, the employee can claim the restitution to the same job he had. The law allows collective dismissals under certain circumstances such as acts of God or force majeure, financial or technical streamlining, dissolution, bankruptcy or operating downsizing without having to grant the severance payment.

Employees' benefits

Employers are required to provide the following

benefits for employees:

- Family allowance: equivalent to 10% of the Minimum salary (PEN S/ 85 since May, 2016).
- Vacation: equivalent to 30 calendar days of paid rest.

- Legal bonuses: 2 bonuses per year, one paid in July and one in December, each one equivalent to one monthly salary approx. Additional Extraordinary Bonus equal to 9% of the legal bonus must be paid.
- Compensation for Time of Services (CTS): equivalent to approximately 1.16 months' salary per year. 50% has to be deposited in May and the remaining 50% in November, in the bank elected by the employee.
- Profit sharing: the amount to be distributed ranges between 5% and 10% of the taxable income, depending on the activity of the employer. This benefit does not apply to companies employing less than 20 individuals.

All these benefits are deductible for corporate income tax purposes.

Employers can negotiate a total annual compensation that includes all the benefits described above, except for the profit sharing, in a fixed monthly installment, as long as the employees earn a monthly salary higher than 2 tax units (PEN S/8,300 during 2018, approximately US$2,515).

Social contributions

- Health Care Contribution: This contribution is paid by the employer and its purpose is to finance the social health system (named EsSalud in Peru), which provides health care services and pay subsidies in case of employee disability. It is collected by the Peruvian Tax Administration (SUNAT). The amount contributed is equal to 9% of the employee's remuneration.
- If the company provides health coverage to its employees using its own resources or through an EPS (in Spanish, the acronym means Entidad Prestadora de Salud) it can request a credit of up to 25% of the Health Care contribution, subject to certain limits established by law.
- Pension System Contribution: The employee can alternatively join the Government Pension System (GPS) or the Private Pension System (PPS). In the GPS, the employee must make contributions equal to 13% of his remuneration. In the PPS, the employee has to make contributions equal to an average of 12% of his monthly remuneration paid in cash. Regardless of the system chosen by the employee (GPS or PPS), the employer is responsible to withhold employees' contributions from their salaries.
- Mandatory Life Insurance: This is a mandatory insurance paid for employees with four years of services with the same employer. It is also possible for it to be granted by the employer on a voluntary basis to employees that have three months of service. The premium depends on the number of insured employees, the risk of the work they carry out, and in general, on the terms agreed with the insurance company.
- High Risk Labor Insurance (SCTR): This is a mandatory insurance to be paid by companies whose activities have a certain level of risk, such as fishing, construction, air transport, manufacturing, among others described in Appendix 5 of Supreme Decree No. 009-97-SA and provides additional coverage for health and pension plans. The contract for health services may be entered with EsSALUD or with a Private Health Care Provider (EPS); a contract for the pension coverage can be entered with the Government Agency for Pension Fund (ONP, due to its acronym in Spanish) or with a private insurance company. The rates depend on the type of activity and/or the terms agreed on with the insurance entity.
- Other contributions: Additional contributions are applicable based on the company's activities, such as the Complementary Retirement Fund, which applies to mining, metal and steel companies; among other contributions.

Expatriates

Foreign individuals that enter into Peru to perform dependent activities for a local employer need to submit their work contract for approval to the Labor Authorities, and obtain their work visa. These employees have the right to receive the same labor benefits as Peruvian employees, and are subject to the same taxes and contributions. As a general rule, foreign employees should not exceed 20% of total personnel. Additionally, wages paid to foreign employees should not exceed 30% of total payroll cost. Such limits can be waived for professionals and specialized technicians or management personnel of a new entrepreneurial activity or in case of a business reconversion, among others.

No restrictions apply to foreign individuals working in Peru with Peruvian immigrant visa, individuals married to Peruvians or having Peruvian children, parents or siblings and foreign investors with a permanent investment in Peru of at least US$151,060 (PEN 500,000.00). Bear in mind that foreigner cannot support investment through share transfer. This also applies to Spanish citizens and countries members of the CAN, which is a regional organization that aims Andean Integration of their members such as Bolivia, Ecuador, Colombia and Peru and citizens of Mercosur members or associates.

Immigration

Foreigners can enter Peru under the following migratory qualifications, among others:

Visa	Rate	Tax bases
Tourist visa	Temporary	This visa does not allow the holder to perform paid activities. This visa does not allow the holder to perform activities that can be considerate Peruvian source income. This visa allows the expatriate to sign contracts.
Business visa	Temporary	This visa allows the holder to work in Peru. In the case of a work contract with a Peruvian company. It should be duly registered / approved by the labor ministry.
Work visa	Temporary	This visa allows the holder to work in Peru. (as dependent or independent). In the case of a work contract with a Peruvian company, it should be duly registered / approved by the labor ministry.
Designated employee visa	Resident or Temporary	This is a visa that applies to an employee of a foreign company. The service agreement and assignment letter must be submitted to the migratory authority. Those documents must be legalized by the Peruvian consulate and the Peruvian foreign minister. In order to obtain the Designated resident visa, the documents will need to granted for an assignment of a minimum of 1 year.
Visa for independent foreign national	Resident	Investment or independent work.
Immigrant	Resident	This visa is granted to foreign nationals who get into the country with purpose to develop activities on a permanent basis in Peru.

Immigration

Also, the following migratory qualifications are currently available, among others:

Visa	Type	Activities
Training	Resident or Temporary	This visa allows the holder to study in Peruvian institutions or to be an intern in a Peruvian company in activities related to his career.
Investor	Resident	This visa allows the holder to establish, develop or manage investments according to Peruvian law.
Investigation	Resident or Temporary	This visa is for foreigners with knowledge and experience in science and technology fields, that comes to Peru through the National Authority in Science and Technology. They are allowed to work.
International Agreements (Ex. Mercosur)	Temporary	This visa is for foreigners from countries that have international treaties and agreements with Peru on immigration matters. With the possibility to apply to a permanent visa 90 days prior the expiration of the residency.
Permanent	Permanent	This visa is for foreigners who had been residents for a period of three years with economic support by their own or a family member (Peruvian or foreigner resident).

Individual taxes

According to the Peruvian Income Tax Law, the compensation received for services rendered within Peruvian territory will be considered as Peruvian Source Income regardless of the location of the entity or individual that is paying the income. Hence, the salary received by the employees or the expatriate for services rendered in Peru will be the taxable basis for Peruvian Income Tax.

It must be noted that the employers will be liable to withhold and remit to the Tax Authorities the employee's income tax. For such purpose, it must determine the employee's income tax debt and withhold the appropriate amount on a monthly basis, and pay the income tax to the Tax Authorities, based on the tax resident condition of the individuals and procedure established by law.

In case the employee is considered as non resident for tax purposes, a fixed tax rate of 30% will be applicable over the salary received for his work in Peru, as of the first day of service, regardless where of it is paid.

In the case of tax residents, apply a five bracket accumulative income tax rate: 8% (for the first

PEN S/ 20,750), 14% (from S/20,751 to S/83,000), 17% (from S/83,001 to S/145,250), 20% (from S/145,251 to S/186,750) and 30% rate to excess of more than S/186,750. Note that the tax unit used in fiscal year 2018 is S/4,150.

In addition to the 7 tax units deduction to be applied on the residents gross income, as of year 2017, an additional 3 Tax Units can be deduced, subject to specific limits and requirements, for expenses incurred due to lease/sublease contracts, mortgage interest credit for the first home, professional fees for doctors and dentist, payments for services rendered that qualify as self-employed retribution (fourth category income) for specific professionals and payments made to EsSalud in favor of domestic workers, if reported through an Annual Income Tax Return.

It is important to mention that all the expenses mentioned above have to be paid through payment methods approved by Tax Administration, that is to say, through the financial system in bank transfers, credit and/or debit cards payments (not cash).

In the case of taxing non-resident individuals entering the country temporarily to perform the following activities, they would not be taxed for revenues obtained in their home country, since they are not considered as Peruvian source income:

- Acts that precede a foreign investment or any other business.
- Supervision or control of an investment or business (i.e. gathering data or information, meeting public or private sector personnel, etc.)
- Hiring local personnel.
- Signing agreements or similar documents.

If foreigners come from countries that have agreements with Peru in order to avoid double taxation (Chile, Canada, Brazil, Mexico, South Korea, Switzerland and Portugal) or countries from the Andean Community (Ecuador, Colombia and Bolivia) other tax regulations may apply.

Finally, notice that domiciled individuals will be liable to file a tax return, provided they receive income other than employment income and the law establishes such obligation (i.e. a domiciled individual who receives remuneration and interest from a bank account abroad). Hence, there is no obligation to file a tax return if domiciled individuals receive only employment income.

02

Accounting standards

The Peruvian Business Corporation Act (LGS) establishes that the financial statements of companies incorporated in Peru must follow the general accounting principles accepted in Peru and other applicable legal provisions. The Peruvian Accounting Standards Board (CNC) has established that the general accounting principles are the standards issued by the International Accounting Standards Board (IASB) and the specific provisions approved for particular businesses (banks, insurance companies, etc.). Likewise, on a supplementary basis, the U.S. - General Accounting Principles (GAAPs) are applicable.

The Peruvian Accounting Standards Board (CNC) is responsible for issuing the accounting standards and methodologies that apply to both private business and government entities. The CNC adheres to the standards approved by the IASB, which are explicitly approved by the CNC and published in the official gazette El Peruano, indicating their date of approval.

Companies that issue debt or shares in the capital market are subject to regulation by the Stock Exchange Superintendency (SMV). Companies supervised by this institution must issue their financial statements in accordance with the International Financial Reporting Standrads (IFRS), issued by IASB; they are as effective in Peru as they are worldwide.

The annual financial information given by companies supervised by the SMV must be audited and include the previous year for comparative purposes. Quarterly reports do not need to be audited. The audit must be conducted according to regulations of the International Auditing and Assurance Standards issued by the International Federation of Accountants (IFAC).

03

Environmental obligations

According to the regulation of the Environmental Impact Assessment System (SEIA), all public, private or mixed capital investment projects that involve activities, constructions, works and other commercial and service activities that may cause significant negative environmental impacts must necessarily have an environmental certification, prior to their execution. These projects can not be initiated and no national, regional or local authority can approve, authorize, allow, grant or enable them if they do not previously have an environmental certification, being within the scope of this regulation the activities related to hydrocarbons and electricity projects.

In this sense, specific rules were approved for the hydrocarbons activities (Supreme Decree No. 039-2014-EM) and electrical activities (Supreme Decree No. 029-94-EM). In the case of the hydrocarbon sector, the investors must present an Environmental Impact Assessment (EIA) before executing exploration and exploitation activities. In the case of the electricity sector, the investors must present a EIA when requesting a definitive concession, that is when they are dealing with electric generation activities that use hydraulic resources with an installed power greater than 500 Kw; transmission of electrical energy, when the facilities affect state property and / or require the imposition of right of way; distribution of electricity as a public electricity service, when the demand exceeds 500 Kw; and the generation of electrical energy with renewable energy resources with installed power greater than 500 Kw.

If any of the aforementioned activities resulted in an extension of their scope after the EIA was already approved, the environmental obligations of the investor vary according to the environmental significance of the proposed modification. In the case of the hydrocarbon sector, the EIA approved should be subject to a modification process that requires fulfilling more or less the same steps for a new EIA; however, with the publication of the Supreme Decree No. 054-2013-PCM the Sustainability Technical Reports was created as an expeditious mechanism for the approval of minor changes to the activity granted in concession. In the case of the electricity sector, the approval of a new EIA is required if the change in the activity granted in concession implies an expansion of its facilities in more than fifty percent of its installed capacity and / or an increase in twenty-five percent of its current level of emissions and / or involving the use of new areas.

The EIA is a crucial document that incorporates technical, environmental and important social matters that contribute to

the evaluation and determination of the necessary mechanisms for preventing, minimizing, mitigating and remediation of the possible negative environmental impacts that the hydrocarbon or electrical activities will trigger.

That is why a relevant aspect of this is participation of the population that inhabits the area of influence of the project, which may be affected by the impacts that could occur in its context that can produce a variation of their living conditions. This participation must occur effectively through informative workshops in non-technical language where the main aspects of the project are detailed, and through a public hearing where agreements are established between the investors and the members that represent the communities in order to reconcile interests.

Bear in mind that depending on the magnitude of the impact that the hydrocarbon or electrical activity will produce in the environment, the investor could develop the following types of EIA:

- Environmental Impact Statement (EIS): If the negative environmental impact is qualified as not significant, a sworn statement is presented and its approval is almost immediate.
- Semi detailed Environmental Impact Assessment (EIA-sd): If the negative environmental impact is qualified as moderate and liable to be eliminated or minimized by adopting easily applicable measures, a study should be present subject to a period of evaluation by the competent authority.
- Detailed Environmental Impact Assessment (EIA-d): If the negative environmental impact is qualified as significant due to the characteristics, size and / or relocation that the project can produce, a study is required that involves in-depth analysis to review its impacts and propose the management strategy. The study should be present subject to a period of evaluation by the competent authority.

For a long time, the competent authority to evaluate the EIA was the Ministry of Energy and Mines (MINEM). However, for increasing the trust of the population in the evaluation of the EIA, the more complex studies are evaluated for the Environmental Certification National Service for Sustainable Investment (SENACE) since December of 2015. This means that EIS and EIA-sd are still evaluated by the MINEM, and EIA-d are evaluated by SENACE.

The principal advantages of the creation of SENACE is that a lot of environmental authorization could be obtained in one single process when the EIA is presented (global certification process), manage a National Registry of Environmental Consultant that can help the investor and whose work is documented, and qualified people in social matters and with more technical understanding guide the evaluation process of the EIA presented.

04

Prior consultation

In order to start an investment project which may require the utilization of natural resources, the investor must evaluate if the area of the future project will be located between lands of an indigenous community, or near to these lands, because special regulations exist in our country in order to protect the rights of the indigenous community.

In the 90s, Peru endorsed Convention No. 169 of the International Labor Organization, through which the recognition of indigenous community as a vulnerable group makes it an internal regulation of the country to integrate a special right to be consulted in favor of these communities. Indigenous people have the right to be consulted about any legislative or administrative measure that can disturb their life conditions in connection with the use of their lands.

Moreover, Law No. 29785, Law of the Indigenous and Native Peoples Right to Prior Consultation, and its Regulations approved by Supreme Decree No. 001-2012-2012-MC, recognize this special right of indigenous people that is different than the regular citizen participation. The Government as an obligation and/or the community as a right may require following a process of consultation for integrating the considerations of the community if –for example- concessions granted could impact their life in a negative way.

This process is meant not only to protect the rights of the indigenous people, but also to prevent eventual social conflicts in the investment projects that may affect them directly. Hence, this legal instrument's goal is aimed towards achieving consensus between the promoting entities, such as the Presidency of the Cabinet, Ministries or Administrative Organisms, and the indigenous or native peoples' representatives.

In the case of hydrocarbon and energy projects, the General Bureau of Energetic Environmental Affairs of the Ministry of Energy and Mines has been chosen as the authority responsible to conduct the administrative proceedings that are part of the Prior Consultation. In the case of hydrocarbons, the timing to develop this process by the competent authority is prior to the issuance of the Supreme Decree approving the subscription of Contracts for Exploration and Exploitation (Ministerial Resolution No. 209-2015-MEM/DM), however, it could be considered an early stage for informing the community about the real magnitude of the project because it is before the grant of the concession.

In the case of electricity, there is no special rule but the process is usually carried out after the concession is granted and in parallel with the elaboration of the Environmental Impact Assessment, in order to integrate all the opinions and observations of the community in the study and the investor will be in a better position to inform about all the impacts analyzed in connection with the project.

Now, the prior consultation process has seven stages, which are:

(i) Identification of the legislative or administrative mean matter of consultation.

(ii) Identification of the indigenous peoples and their representative organizations.

(iii) Publicity of the legislative or administrative mean matter of consultation.

(iv) Information.

(v) Internal evaluation by the indigenous peoples.

(vi) Dialogue between the Government and indigenous peoples.

(vii) Decision.

It must be noted that if a consensus is not met in the last stage of the process, the promoting entities will do their best effort in order to adapt the legislative or administrative means so that it guarantees the indigenous peoples' rights and the improvement of their living conditions. Thus, the lack of consensus does not imply a veto right in favor of the latter.

The decision must take into consideration the following aspects: (i) Be in accordance to the promoting entity's competences; (ii) respect the Constitutional and legal frame; (iii) comply with the environmental legislation; (iv) preserve the survival of the indigenous peoples and their collective rights; (v) guarantee communal property and land rights of the indigenous peoples.

Once a decision is reached, a report of the process is submitted to the Interculture Viceministry, which is the public entity in charge of supervising the full process. As of December 31, 2017, 34 prior consultation processes have taken place. More than ten of them are directly related to the hydrocarbons industry, and just two of them are related to the electricity industry.

05

Anti-corruption regulations

Since 2016, Peru has the specific Law No. 30424 that regulates the administrative responsibility of corporations in case of corruption crimes stated in the Criminal Law. This Law establishes the scope of the responsibility of corporations for actions that its partners, directors, managers and other empowered related subjects may have done on its behalf or for its benefit.

In case of guilt, according to this Law, corporations are subject to fees, become disqualified entities when contracting with the Government, or are subject to the cancellation of specific licenses and authorizations.

In this regard it is important to mention that Law No. 30424 also states that corporations that may have developed a "Compliance Program" according to its activity, needs and risks in order to prevent the commission of corruption crimes will be exempted from administrative responsibility.

Due to the recent corruption acts detected in the infrastructure sector during 2017, the Government introduced measures to assure the continuity of investments in the country. In January of 2017, Legislative Decree No. 1341 established in its Fifth Final Complementary Provision that certain impediments regulated in the State Contracting Law would be applicable to the processes for entering into Public-Private Partnership contracts. This type of contract could not be celebrated by persons convicted, in the country or abroad, or who, directly or through their representatives, had admitted the commission of corruption crimes, the same limitation being applicable to legal persons whose legal representatives or related persons would have been convicted or had admitted the commission of corruption offenses.

In addition, Emergency Decree No. 003-2017 was enacted in February of 2017 for a one year term. The purpose of this regulation was to approve measures that prevent the paralysis of the execution of public works or public-private partnerships and the breakdown of the chain of payments that put the economic performance of the country at serious risk, as a consequence of acts of corruption carried out by or through of the concessionary companies or contractors, or of their partners or parts of the consortium, that have been condemned or have admitted the commission of crimes against the public administration or money laundering, in order to contribute to economic sustainability and to protect the interests of the State.

A month later, in March of 2017 the Supreme Decree No. 068-2017-EF was approved with

the objective of obligatorily establishing that Public-Private Partnership contracts should include an anti-corruption clause, under sanction of nullity. Being that when the contract ends due to causes attributable to the investor derived from the application of the anti-corruption clause established in the respective contract, no compensation would be paid in favor of the investor, for damages.

All these anti-corruption regulations were approved as a reaction to the Lava Jato scandal and its implications in our country. This explains why the application of the aforementioned temporal Emergency Decree was extended by means Emergency Decree No. 003-2018 for one month, during March 12, 2018. After this, in March 13, 2018, a proper Law to avoid collateral negative effects was enacted.

This recently enacted regulation is Law No. 30737 and its purpose was to introduce new measures and liabilities for corporations related (as partners, joint-parties or any other form stated in the Corporate Act) to other corporations that are subject to judicial processes for corruption breaches according to Law No. 30424.

Another relevant consideration of the Decree consists of the liability and responsibility of related corporations to create "Compliance Programs" according to each corporation's needs, risks and characteristics to prevent the commission of violations and corruption crimes in the terms and conditions stated in Law 30424. This Compliance Program also entails responsibiliy to hand in information to Authorities periodically regarding the development of the business and its financial status.

Appendix 5

01

Regulators and stakeholders

AMCHAM
The American Chamber of Commerce of Peru (AmCham Peru) is and independent and non-profit organization, founded onJanuary 17, 1968, that represents Peruvian, American and foreign companies. It has about 3,000 members representing more than 580 associated companies. (www.amcham.org.pe)

National Council of Science, Technology and Technological Innovation- CONCYTEC
Leading institution of the National System of Science and Technology and Technological Innovation (SINACYT), integrated by the Academy, the State Research Institutes, business organizations, communities and civil society. Its purpose is to regulate, direct, guide, encourage, coordinate, monitor and evaluate the actions of the State in the field of Science, Technology and Technological Innovation and to promote developments through concerted and complementarity action between the programs and projects of the public, academic, business, social organizations and individuals. (https://portal.concytec.gob.pe/)

COMEXPERU
COMEXPERU is the private association that comprises the leading companies involved in foreign trade in Peru. Its main purpose is to contribute to the improvement of competitive conditions within a free market, which will make Peru an attractive destination for private investment. (www.comexperu.org.pe)

CONFIEP
The National Confederation of Private Business Institutions (CONFIEP) brings together and represents private business activities within Peru and abroad. Its principal objective is to contribute to the process of sustained economic growth, based on investment and job creation from the perspective of individual effort and initiative, and the promotion of entrepreneurship and private property. (www.cofiep.org.pe)

Economic Operation Committee of the National Interconnected System - COES
Private entity conformed by all generators, transmitters, distributors and free users of electricity, whose facilities are interconnected. Purpose of the COES is to coordinate the operation of the Interconnected Electrical National System (SEIN) at the lowest cost and give safety and quality to the supply of electricity to the country. (www.coes.org.pe/portal)

Environmental Assessment and Supervisory Board – OEFA
The OEFA is the guiding entity of the National Environmental Assessment and Supervisory System (SINEFA) and is

responsible as such for the evaluation, supervision, and auditing of the compliance with environmental laws nationwide, integrating the efforts of the State and society in a coordinated and transparent manner to ensure the effective management and protection of the environment.
(www.oefa.gob.pe)

General Bureau of Environmental Health - DIGESA
This is the technical-regulator body in aspects related to basic sanitation, occupational health, hygienic food, zoonosis and environmental protection. It issues regulations and assesses environmental health processes in the sector. It is an entity under the Ministry of Health.
(www.digesa.minsa.gob.pe)

Lima Chamber of Commerce – CCL
The CCL, founded in 1888, is a private entity that promotes free enterprise and business development by enforcing its legitimate rights, facilitating new business opportunities, providing assistance and services and improving their competitiveness. It is one of the most representative business associations that has more than 13,500 associated companies.
(www.camaralima.org.pe)

Ministry of Agriculture - MINAGRI
This is the entity that promotes the development of organized agrarian producers in productive chains, in order to achieve an agriculture that is fully developed in terms of economic, social and environmental sustainability.
(www.minagri.gob.pe)

Ministry of Culture
This is the nation's cultural authority in charge of the establishment, execution and supervision national policies related to cultural matters. It is also in charge of the arrangement and coordination of the national policy of the prior consultation right.
(www.cultura.gob.pe)

Ministry of Economy and Finance – MEF
The Ministry of Economy and Finance is an entity of the Executive Branch responsible for planning, directing, and controlling matters related to the budget, treasury, debt, accounting, fiscal policy, public spending, and economic and social policies. It also designs, establishes, performs, and supervises national and sector policies under its competence, assuming a guiding role therein.
(www.mef.gob.pe)

Ministry of Energy and Mines - MINEM
This is the central and governing body for the Energy, Hydrocarbons and Mining Sector, a part of the Executive Branch. Its purpose is to formulate and assess national policy in matters of sustainable development in mining- hydrocarbon-power activities. It is the governing authority in environmental matters in reference to hydrocarbons-mining-energy activities.
(www.minem.gob.pe)

Ministry of Environment – MINAM
This is the nation's environmental authority, the overseeing entity of the National Environmental Management System (SNGA), and a part of the Executive Branch. Its main functions are focused in promoting environmental sustainability by preserving, protecting, recovering and securing the environment, ecosystems and natural resources.
(www.minam.gob.pe)

Ministry of Foreign Affairs: Executive Office for Economic Promotion - DPE
The Executive Office for Economic Promotion (DPE) is the institution of the Ministry of Foreign Affairs (MRE) responsible for coordinating with Peruvian missions abroad in an effort to promote Peru as a country capable of providing goods and services in international markets, as well as positioning it as a world-renowned tourist destination, and a country with interesting business and investment opportunities in different economic sectors.
It should be noted that the DPE has a Quality Management System certified with ISO 9001:2008 International Standards, governed under the values of equality, social

commitment, honesty, transparency, and teamwork, thus ensuring that the needs of its national and international users are met.
(www.rree.gob.pe)

Ministry of Labor and Employment Promotion - MTPE
This is the body governing labor in Peru, with all powers necessary to lead the implementation of policies and programs for generating and improving employment, and also responsible for enforcement of legislation for labor matters.
(www.mintra.gob.pe)

National Environmental Certification Service for Sustainable Investment – SENACE
The SENACE is a public specialized entity in charge of the review and approval of the detailed Environmental Impact Studies (EIA-d) related to nationwide public, private or mixed capital investment projects which contemplate activities, constructions, building sites and other commercial activities or services that may cause significant environmental impacts. This entity is under the Ministry of Environment.
(www.senace.gob.pe)

National Forest and Wildlife Service - SERFOR
National Forestry and Wildlife Authority of Peru and the governing body of the National Forestry and Wildlife Management System (SINAFOR). Started functions in 2014 with the aim of promoting the sustainable and participatory management of forest and wildlife resources, and the use of their ecosystem services.
(www.serfor.gob.pe/)

National Fund for the Finance of the Corporate Activity of the Peruvian Government - FONAFE
A Public Law company attached to the Economy and Finance Sector created by Law No. 27170 in 1999, responsible for regulating and directing the State's business activity.
(www.fonafe.gob.pe/)

National Service for Natural Areas under State Protection – SERNANP
This is a public specialized entity responsible for directing and establishing the technical and management criteria for the preservation of Protected Natural Areas (ANPs), and overseeing the conservation of biological diversity. It is an entity under de Ministry of Environment.
(www.sernanp.gob.pe)

National Society of Industries – SNI
The SNI is a non-profit private organization created to promote the development of manufacturing industry in Peru, guaranteeing the freedom and responsibility required to perform business activities according to Peruvian market economy assurance.
(www.sni.org.pe)

National Society of Mining, Petroleum and Energy - SNMPE
This is a nonprofit organization, which groups the companies related to the mining, oil & gas and energy related activities in the country.
(www.snmpe.org.pe)

National Superintendency of Tax Administration - SUNAT
A decentralized public entity in the Economy and Finance Sector that enjoys economic, administrative, functional, technical and financial autonomy. It is the main tax-collecting agency in the Peruvian economy.
(www.sunat.gob.pe)

National Water Authority – ANA
This is the nation's water authority. Its purpose is the conservation and development of the hydric resources within a hydrographic river basin.
(www.ana.gob.pe)

Peruvian Association of Solar energy - APES
Non-profit institution, created in 1981 with the purpose of promoting, disseminating and encouraging training, research, development and applications of renewable energy, the rational use of energy, and respect for the environment in Peru.
(www.perusolar.org/)

Peruvian Chamber of Renewable Energies - CPER
National organization of civil society whose purpose is to support the fight against climate

change through the promotion of renewable energies, and support the process of transition from fossil energy investments to renewable energies investments.
(www.camaraperuanade energiasrenovables.org.pe/)

Peruvian Chamber of Vehicular Natural Gas - CPGNV
The CPGNV, founded in 2004, is a private nonprofit institution that promotes the development and use of natural gas for vehicles in Peru, providing facilities to companies dedicated to the production, transportation, distribution, supply and marketing of the vehicular natural gas and related products.
(www.cpgnv.org.pe)

Perupetro
Perupetro is the state-owned Company that promotes, negotiates, signs and supervises exploration and production contracts, on behalf of the Peruvian State.
(www.perupetro.com.pe)

Petroperu
Petroperu is a state-owned company of private law that carries out exploration, exploitation, transport, and refining activities.
(www.petroperu.com.pe)

Peruvian Hydrocarbons Society – SPH
The SPH is the main hydrocarbons guild in Peru. Founded in 2013, it groups the main companies dedicated to exploration and exploitation activities in the country.
(www.sphidrocarburos.com)

Peruvian Renewable Energies Society - SPR
Non-profit civil
association composed of companies and organizations that are committed to the development of non-conventional renewable energies.
(spr.org.pe/)

Presidency of the Cabinet – PCM
This is the technical-administrative body covered by the Executive Law; its highest authority is the President of the Cabinet. It coordinates and conducts a follow-up on the Executive's multi-sector policies and programs, coordinates actions with Congress and independent constitutional bodies, among other roles.
(www.pcm.gob.pe)

ProInversion
ProInversion is the Peruvian investment agency in charge of the promotion of business opportunities with high growth and profitability expectation in Peru. Its purpose is to promote investment unrelated to the Peruvian government by private parties in order to boost Peru's competitivity and development and to improve the well-being of the population.
Likewise, its vision is to be considered by investors and by the public as an efficient and strategic option for the development of investments in Peru.
ProInversion provides information to potential investors regarding the incorporation of a legal entity, identifying investment by industries and investment projects (granted and pending), among other topics.
(www.ProInversion.gob.pe)

Supervisory Body of Private Investment in Energy and Mines - OSINERGMIN
This is the regulatory, supervisory body that regulates, enforces and oversees the activities undertaken by internal public-or-private-law legal entities and individuals in the electricity, hydrocarbons and mining sub-sectors.
(www.osinergmin.gob.pe)

02

EY services

Our strength in the hydrocarbon and energy sector

EY's hydrocarbon and energy professionals combine technical capabilities with a thorough understanding of the industry's operating processes, strategic and operating risks, growth drivers, regulatory considerations, and market dynamics.

We use our wide experience of working with the world's largest hydrocarbon and energy companies to help you address your key business issues. This might involve helping you to overcome current sector issues such as rising costs where we can help you streamline operational and business processes and improve productivity on key profit drivers. In this environment of increased sector consolidation, we can assist you with your divestment strategies, to ensure that you realize your full value upon exit. If you are looking to expand your operations to new regions, you can draw on our deep understanding of how to manage operational risks – both political and otherwise.

EY has a number of multi-service line solutions to help our clients meet these challenges.

Our services

EY Peru has a global focus on hydrocarbons and energy, with over 1,300 specialist global professionals including engineers, accountants, economists, administrators and lawyers. Our global team is closely networked and shares industry and technical knowledge to provide our clients with seamless global service. Some of our specialist hydrocarbon and energy-based services include:

Environment and sustainability

Providing an extensive range of services in areas such as sustainability reporting and assurance, sustainability strategy, reputation issues, environmental risk management, greenhouse gas emissions advisory, renewable energy and emissions trading.

Hydrocarbons and energy advisory

Improving supply chain responsiveness to demand volatility; delivering core business re- engineering (e.g., merging a number of blocks mines into one management structure), and delivering projects aimed at reducing costs or increasing production.

Mergers and acquisitions advisory

Mergers and acquisitions, at either the holding company or asset level, require specific knowledge and skills in order to complete transactions. The knowledge and skills required relate to the regulatory environment, including the rules and regulations of each country's stock exchange, accounting, legal, structuring and taxation disciplines, in addition to an understanding of transaction value-drivers.

Valuation and business modeling (V&BM)

Providing a range of services to companies in the hydrocarbon sector including valuations for purchase price allocation / acquisition accounting, tax planning, finance and stamp duty purposes and containing specialists with extensive skills ranging from valuations of businesses and intangible assets to specialized oil & gas capital equipment and real estate. Further V&BM has deep expertise in model building and review and is able to construct or review life of mine cash flow models as part of an acquisition strategy.

Project finance advisory

Advising on the development, optimization and implementation of finance plans covering the full range of project financing options for resources projects, non and limited recourse debt and tax effective leasing, as well as a number of associated infrastructure projects such as preparation plants, conveyor systems, electric transmission lines, and gas pipelines.

Transactions advisory

Our global transaction capability covers over 80 countries and comprises over 7,000 professionals. These transaction professionals work across many elements of the transaction life cycle dealing with critical areas of financial due diligence, tax due diligence and structuring, valuation and business modeling and transaction integration.

Transaction integration

Providing commercial and operational due diligence, integration planning and methodology development, synergy assessment, and integration program management, corporate strategy advice on market opportunities and areas to exploit along the companies value chain, as well as practical operational advice in areas such as overhead and capital expenditure cost reduction, process efficiency, supply chain and procurement, and in functional areas such as finance and human resources.

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