

PERU

A Bullish Llama



A Special Report From *Oil and Gas Investor* and *Global Business Reports*

BPZ Energy's CX-15 platform and hull will be installed at Corvina Field.

INTRODUCTION

Once, the Inca Empire dominated the region around what is today Peru. The conquests and expansion of this civilization, which brought half the continent under Incan domain, were funded by the natural resources beneath its feet.

Today, the path to greatness once again runs through Peru's vast mineral wealth. Peru's strength in natural resources has traditionally been focused on mining, yet oil and gas have a history in the country stretching back centuries, and represent a bright future for economic diversification.

In 1863, just three years after Colonel Drake drilled his first well in Titusville, Pennsylvania, Don Manuel Antonio de la Lama drilled the second commercial well in the world in Talara, deep in the heart of Peru's Amazonian north; blocks that surround this original well are producing to this day.

Many of the hallmarks of 1970s Latin America took their toll on Peru, leading to years of instability, military rule and hyperinflation, effectively nullifying investment in the country. Yet recently, Peru has witnessed a change in fortune, averaging a 6% growth rate in the past 10 years, and 7% in 2011, while inflation has kept steady at a modest 4.7% a year. A decade of political stability and steady growth has brought attention to Peru in all sectors, and hydrocarbons are no exception.

The massive undertaking of bringing Camisea, one of the continent's largest gas fields, into production in 2004 was the first step in developing Peru's sizable hydrocarbon potential. The project also highlighted the substantial difficulties that await the sector's full development; a total of 1,254 kilometers of pipeline was built at heights of up to 4,870 meters across the Andes to transport Camisea's gas to Lima, in what many believe to be the highest-altitude pipeline ever built.

Economic growth has, naturally, increased Peruvian energy consumption, and domestic production of 70,000 barrels of oil per day

(bbl/d) is dwarfed by a daily consumption of 189,000 bbl/d, most of which requires more refined varieties than Peru's seven refineries can produce. Foreign reserves gained by the country's vital mining industry are being eaten away by the need to import petroleum products. Despite rising gas production, currently at 1.1 billion cubic feet daily, liquids production in Peru decreased from 93,000 bbl/d in 2002 to 70,000 bbl/d in 2011, despite increased production of associated gas from 4,000 bbl/d to 83,000 bbl/d in the same period, and no significant oil discoveries have been made.

Peru's modern petroleum industry is small, with only 38 exploration and production (E&P) companies operating 82 blocks in the country's 15 basins. But a new bidding round of 36 blocks has been announced for November 2012, and has generated widespread international interest.

With such rapid economic growth, the need to introduce reliable legal standards to attract long-term investments to explore, produce and construct the required infrastructure has become obvious. Despite technical and social challenges, Peru's hydrocarbon sector seems set to boost its activities. For almost every technical and environmental difficulty presented, new companies are being created, ready to supply solutions. For all the issues that remain, a virtuous circle appears to be emerging that should ensure future growth. □

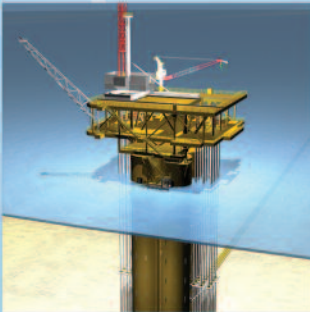
This report was prepared by Nathan Klabin and Caroline Stern of *Global Business Reports*. For more information contact info@gbreports.com.



Albacora Platform



Corvina CX-11 Platform



Corvina CX-15 Platform Design



BPZ Energy
Developing Energy - Providing Opportunities

www.bpzenergy.com

Strengthening our Foundation

The BPZ team will be recognized for excellence in exploring, developing and producing oil and gas in the Americas.

We will:

- Deliver profitable growth and become a preferred partner of governments and industry.
- Honor our commitments to safety, ethics, the environment and the communities in which we operate.
- Attract and retain top talent by valuing teamwork and creating a great place to work.



BPZ Energy
580 Westlake Park Blvd., Suite 525,
Houston, TX 77079 USA
Tel: (281) 752-1240

Av. El Derby 055,
Edificio Cronos - Torre 1, int 402
Urb. Lima Polo and Hunt Club,
Santiago de Surco, Lima, Peru
Tel: (511) 708-0808

The new Corvina CX-15 platform and hull being transported from Nantong, China to Tumbes, Peru.

Camisea—Gas Culture

Camisea is the apex of a narrative about a new and successful Peru, where foreigners and Peruvians have worked together to generate profits for investors and wealth for local populations.

The Camisea fields, which at 13 trillion cubic feet (Tcf) of reserves of natural gas are some of the largest gas fields of the Americas, are the distinguishing feature of Peru's modern energy mix. The arrival of gas from Camisea in Lima in 2004 sparked an emerging gas culture and brought a burst of new businesses with it. From virtual distribution systems to fuel stations and conversion factories, it seems that everyone wants a piece of the action, and bumper-stickers saying "I am Peruvian and I want gas" can be seen around Lima.

Located in the Ucayali Basin, what became Camisea was discovered in 1983 by Shell. At the time, Shell's plans for the fields' development did not find favor with the government. "Shell had invested \$200 million and Fujimori thought that Shell would bow to his decision, rather than lose the amount invested. In the end, Fujimori stood his ground; no agreement was reached and Shell left the country," explains Cesar Gutierrez, former president of national oil company Petroperu and now an independent consultant.

Shell's departure in 1988 shelved the Camisea project for the next 12 years until Petroperu was stripped of its E&P monopoly in 1993 and of its E&P assets in 1996. Development of the Camisea fields only began with the formation of an international consortium, consisting of U.S.-based Hunt Oil, South Korea's SK Corp., Spain's Repsol, Argentina's Tecpetrol and Algeria's Sonatrach.

The search for a private partner to develop Camisea was hindered by the Peruvian government's position that the gas be used to generate benefits in the country, and not exported in its entirety. "In 2000, it was common knowledge that the greatest challenge for the Camisea project would be to create a gas market from scratch, and to make it profitable," explains Guillermo Mirande, general manager of Tecpetrol, the E&P arm of Techint, an Argentine conglomerate that has invested heavily in Peru, and the operating partner in Camisea.

"The project was supported by the production of liquids in the fields, but the gas itself did not have a market, and it had to be developed. There were only seven initial customers in the bidding contract."

The lack of private-sector demand was compensated for with the promise that the gas would be used for electricity generation. Carlos Paredes, business development manager for COFIDE (Peru's national development bank, which played a central role in the project's success), adds: "When Camisea began to be developed, not many industries were interested in converting to gas for power generation. However, once they saw the benefits experienced by the early adopters, many quickly decided to convert. Demand for gas has now exceeded all expectations, and the pipeline is no longer enough to carry all the gas demanded."

Camisea came onstream in 2004, and the TgP pipeline, built and operated by the multinational consortium consisting of Hunt Oil, Tegas, Sonatrach, Pluspetrol, SK Corp., Suez-Tractebel and Graña y Montero Petrolero (GMP), began operating the same year. Today, the pipeline delivers 550 million cubic feet of natural gas and liquefied petroleum gas to Lima from across the Andes and over desert, to the Melchorita exporting plant on the coast. This plant has the capacity to process 620 million cubic feet of compressed natural gas per day and exports an average of 316 million cubic feet per day of liquefied natural gas by the Peru LNG consortium mainly to markets in North America and Asia.

Today, Camisea is the apex of a narrative about a new and successful Peru, where foreigners and Peruvians have worked together to generate profits for investors and wealth for local populations.

October 2012 • *OilandGasInvestor.com*

Calidda, the company that won the rights to distribute gas in Lima, estimates the saving generated by the use of natural gas represents approximately 1.4% of Peruvian GDP. Barbara Bruce, chief executive officer of Hunt Oil in Peru, reinforces the project's social implications: "We believe we have been part of a very positive change by bringing clean fuel to Lima, working together with the government and providing a more accessible fuel like LPG to people with lower economic resources."

Tecpetrol's Mirande believes Camisea brought a new perspective of success to the country, despite initial difficulties. "It is exactly because of these difficulties that the possibility for discovery remains so great. In Peru, everyone is exploring with high ambitions, with the intention and real possibility of finding another Camisea. There are few other jurisdictions where explorers can realistically dream so big."

The success of the Peruvian oil and gas market is often attributed to the country's ability to create a "gas culture," a phrase often used by Jose Merino Tafur, Minister of Energy and Mines, and frequently repeated by leaders of the industry. "The creation of a gas culture is a huge challenge in Peru for two reasons. The first is the lack of infrastructure for storage and transportation. The second is that enough reserves have to be found for investors to be interested in building infrastructure that allow marketing existing reserves and increasing reserves for the future," says Guillermo Mirande, general manager of Tecpetrol.

This paradigm shift was not easy, nor is it complete, but, particularly in the automotive sector, it has been tremendous. Today, it is estimated that Peru has 20% of its fleet running on natural gas.

"In the last five years, the natural gas market reached 100,000 vehicles converting to natural gas, while liquefied petroleum gas reached this mark only 20 years after it was introduced in the country. Natural gas is more economic to the user, it pollutes much less and is much safer," explains Edgardo Escobar, general manager of PGN, a subsidiary of Pecsca, which has over 40 service stations and 600 buses running on natural gas in Lima.

The rapid expansion of natural gas vehicles (NGV) was facili-



A Pecsca primary fuel truck is in the refinery to get supplies.

The Petrochemical Plant & The Gasoducto del Sur

The Gasoducto Andino del Sur, or Southern Pipeline, is a 1,000-kilometer pipeline being planned by the government and private companies, and is a central piece of development for Peru's oil and gas sector. The pipeline would bring gas to one of Peru's least industrialized regions, and supply the associated petrochemical cluster and several plants planned to add value to Peru's raw production.

The former Minister of Energy, Carlos Herrera Descalzi, was actively involved in the development of the plans and is cautiously confident about their potential: "Today Peru has around 13 Tcf of proven gas reserves but estimations are that these could reach around 40 Tcf with proper exploration. The gas from Camisea has large amounts of ethane, allowing the construction of a petrochemical plant. This plant will be the first of its kind on this side of the southern Pacific and would have access to the entire regional market."

The Brazilian troika of Petrobras, Odebrecht and Braskem are leading this megaproject, expected to cost \$10 billion.



The Pariñas gas processing plant, located in the city of Pariñas, district of Talara.

Estimates are that the project will directly increase Peruvian GDP by 1%, and that, given its decentralized location, its "trickle-down effect" will be substantial.

One-third of Peru's 28 million people live in Lima, and decentralizing industry is seen as a key goal of similar scale projects. Gregorio Neglia Ortiz, general manager of Inspectra, an engineering company which, like many others, hopes to work with the new developments, believes it will "connect the different regions and decentralize business opportunities away from Lima. This is a typical case where dividing the focus of development is in fact multiplying it."

Sergio Thiesen, the superintendent director of Braskem in Peru, explains: "The pipeline originally planned to supply the petrochemical plant will also support other businesses in the region."

Decentralization has already begun to take hold in other areas, to wide-reaching effect. Ticiano Muñoz, the general manager of Arogas, a company that designs and builds integrated gas solutions for in-

dustrial and commercial use, says: "In terms of gas installations, the real growth will be seen outside the capital. Just last month we completed the transformation of two platforms in different provinces and I believe that this is the future direction of the market."

But the project is still very much conceptual, with problems ranging from politico-bureaucratic issues to the technical, social and environmental. Gutierrez points out: "There are no industries to consume gas in the southern region. It is currently cheaper to build such plants in the U.S., which has expertise in the sector, larger quantities of ethane and better prices than Peru."

Nevertheless, industry leaders are confident that the Southern Pipeline and the petrochemical cluster can become reality, and that the main sticking point will be negotiation between the government and the interested players, of which there has already been no shortage.

Beyond such public-private partnerships, the government is investing heavily in infrastructure on its own account. The largest project is the complete overhaul of Petroperu's Talara refinery, a strategic asset for the entire sector. Petroperu's Campadónico says, "The Talara refinery will grow not only in production capacity but also in the quality of its products. We will produce diesel with 50 parts per million of sulfur, increase the processing capacity from 65,000 bbl/d to 95,000 bbl/d and will process heavier oil and deliver greater quantities of lighter products."

Having secured financial support from Société Générale, Petroperu announced the expansion of Talara's refinery with great fanfare in May, and it expects it to be an important step toward a more integrated petroleum sector, providing greater capacity for value-added products.

tated by financing implemented by COFIDE, and a chip technology A that was developed in Colombia and perfected in Peru. When a customer decides to convert a vehicle to gas, the conversion is financed by COFIDE, which in return gets paid automatically, thanks to this chip technology. The payment is done gradually as the user fuels the vehicle, and because natural gas is much cheaper than gasoline, customers still enjoy significant savings. "When an individual buys natural gas, a small percentage of that person's savings from the difference in price for the fuels is taken to pay back the financial services that the user received to finance the conversion process," explains COFIDE's Paredes.

Such rapid growth brings challenges. Despite the pipeline's quick expansion, short-term solutions are necessary. So-called virtual distribution, in which natural gas is distributed using specially designed systems

carried by trucks, has grown quickly to supply areas of the country that have developed gas demand, before the arrival of the pipeline. German Freyre, general manager of NeoGás, a Brazilian company that spearheaded the virtual distribution trend in Peru, delivering an average of 6 million cubic meters of gas each month, describes its relationship to the pipeline as an "announced divorce."

"Virtual distribution is symbiotic with the pipeline, because as it opens new markets and develops customers, the pipeline has the motivation to expand as well. No matter how much the pipeline expands, there will always be somewhere it does not reach, and thus a need for the virtual pipeline."

The oil potential

Although Peru's industry is dominated by gas and the opportunities it has brought,

Peru's oil history is in fact much older, and 532 million barrels of proven liquid reserves should not be ignored. However, decades of low investment in exploration, caused first by an unwelcoming investment climate and, more recently, by the slowness of the permitting system, resulted in production that has been steadily decreasing for the past 10 years.

Recently, interest has been piqued across the public and private sectors, and Petroperu is getting ready to re-enter upstream operations after 15 years of absence by farming into existing blocks as a nonoperating partner. Asked if Petroperu will follow the model of companies such as Petrobras and Ecopetrol, Humberto Campadónico, president of Petroperu, says: "We must remember that neither Petrobras nor Ecopetrol ever faced the dismembering process of privatization which Petroperu went through in the 1990s. For a long time, Petroperu was destined to be privatized and



Dr. Rosa Maria Ortiz, current president of PeruPetro

we sold our participation in several blocks, the Pampilla refinery (which at the time was our largest refinery), gas infrastructure, our maritime sector and service stations throughout Peru. Only the public outcry which ensued prevented Petroperu from being sold entirely and led to the creation of special legislation to protect the company. In contrast (to integrated, international NOCs), Petroperu's partial privatization put us many steps behind its peers."

Despite the recent opening, Peru has not been flooded by new E&P players, for all the best efforts of PeruPetro, the government entity responsible for assigning contracts and issuing licensing rounds. "In Peru there are 18 sedimentary basins with the potential to contain hydrocarbons. However, in only six of them are there major oil exploration activities and the total hydrocarbon production of the country is concentrated in just three of them. The remaining basins contain extensive unexplored areas or very little activity," explains Dr. Rosa Maria Ortiz, current president of PeruPetro.

Since Shell's departure, Peru has not had any major operator in the country. Asked if attracting bigger players to the market was an overt goal, Ortiz says: "We are open to all kinds of companies."

Diversification will be key, however, as around 87% of current production is concentrated between Pluspetrol, Petrobras and Savia, a joint venture between the state-owned oil companies of Colombia and South Korea, Ecopetrol and KNOOC, respectively.

This concentration is a direct result of the lack of exploratory activities. "Peru has great potential but there is a significant lack of exploration that is needed to ensure a better understanding of what remains to be done. The result of this is that the Peruvian market has seen a lot of cooperation between companies. There are many common challenges, which different actors can tackle better if they work together," says Carlos Mario Rendón, Ecopetrol's general manager in Peru.

Beyond its venture in Sávia, Ecopetrol expanded rapidly throughout Peru after going public and is working on five blocks in the Marañon and Ucayali basins.

"A diverse market with many players is one where risks are better managed because companies can work together across many blocks," adds Gustavo Posth, general manager for Vetra in Peru, a company founded by former PDVSA employees, which made a successful move from services into E&P and is producing 12,500 barrels of oil equivalent per day in Colombia and exploring one block in the Piura department. "We believe that, while a healthy oil and gas market will always have big players, it is the small and medium-sized companies which really measure the market's potential."

Not surprisingly, Peru's huge unexplored geological potential and strategic location have attracted international attention. Tim Hosking, general manager for Karoon in Latin America, describes himself as "bullish on Latin America" and explains: "In 10 years time, we expect China will be using 12 Tcf of natural gas a year and we will also see an increase of gas consumption in Japan as it moves from nuclear energy towards more gas. The Pacific Coast is an excellent supply base for that demand."

Karoon Gas, an ASX-listed company with blocks in Brazil, Peru and Australia, is exploring in Tallara, and is bringing in the first offshore drilling ship Peru has seen in 20 years—an indication that high levels of



Manolo Zuñiga Pflücker, president and chief executive, BPZ Energy

investment do not come only from majors.

Another high-net-worth offshore arrival will be BPZ Energy's CX-15, an offshore platform that is the first of its kind in Peru. "With this platform we will not only be able to grow our production, but also work in water depths of up to 700 feet, whereas previously 300 feet was the depth limitation," explains Manolo Zuñiga Pflücker, president and chief executive of Houston-based BPZ Energy.

E&P companies that are listed on foreign exchanges are an increasing trend in Peru, but given the rapid changes the country has seen, investors are not always familiar with the new reality. "Although increasingly fewer, (there are still) some members of the investment community who do not understand the essential differences between Latin American countries. This is especially concerning since, although Peru does have problems, these are social rather than political. If we understand that political problems are sometimes deeply rooted in cultural aspects, and social problems tend to be caused by economic cleavages, then we understand that the problems in Peru are perfectly manageable and resolvable," says BPZ's Zuñiga.

BPZ has proven reserves of 34 million barrels of oil equivalent and 92 million bar-

VETRA

VETRA is a company dedicated to the exploration and production of oil and gas projects.

Achieving Vetra's goals involves combining oil and gas exploration and production with a harmonious relationship with its shareholders, supporting stakeholders, communities and protecting the environment everywhere the company operates.

Operations in Colombia, Mexico and Peru

Calle Alcanfores 495, Oficina 502, Miraflores, Lima, Peru
 Tel: +511 242 0642 Fax: +511 2420642 www.vetragroup.com



Pacific Rubiales Energy, Where Great Ideas Become Reality

The understanding of the coming world and a constructive interaction of oil industry and stakeholders will permit Pacific Rubiales Energy to be sustainable in its operations, generating added value and positive impacts to society.

Pacific Rubiales Energy

Av. Jorge Chávez 154, Centro Empresarial Miraflores II, Piso 8, Miraflores. Lima-Perú

www.pacificrubiales.com



Construction, commissioning and activation of the FPSO Namoku production facilities in the sea outside Zorritos, Peru.

rels equivalent of possible reserves in the Z1 block, offshore the northern Tumbes region.

Pacific Rubiales, the TSX-listed operator and the largest private producer of oil in Colombia, has recently purchased a 49% stake in BPZ's flagship Z1 Field, in one of the largest transactions ever seen in Peru. Together, they aim to grow production from 3,000 barrels of oil equivalent per day to 20,000 equivalent per day in the next few years, according to Camilo Valencia, president of Pacific Rubiales in Peru.

Despite its name, Pacific Rubiales' new venture in Peru will be its first in the Pacific Ocean, and it plans to invest \$500 million in exploration in the country for the next year. Calling attention to the mantra of bureaucracy, however, Valencia says, "This will only be possible if the regulations in the country allow our plans to happen."

Along with increasingly stringent requirements for environmental impact assessments (EIAs), approval times for permits and licenses have grown increasingly burdensome, delaying operations for as much as two years and encouraging some companies to abandon their Peruvian activities altogether.

Challenges: Social, environmental, logistical

In the mining sector, months of protest have halted the country's largest planned investment, led to multiple deaths and caused President Ollanta Humala to reshuffle his cabinet three times in the past year. The trend has begun to affect the oil and gas industry, as well.

"It is unfortunate that government and the companies only listen to communities once they have been the cause of violent protests. Some companies just postpone the obvious and the others do not recognize reality until problems begin," says Oscar Díaz, the general manager of Vice Versa, a social and environmental consultancy that stands as a broker between energy companies and the communities near their activities.

Often, communities' ill disposition towards the oil and gas sector does not stem from negative previous experiences with the industry. "We are observing many protests in the mining sector and we fear that this could spill over into the oil and gas sector. New companies are coming to Peru and we hope that the local communities do not blame newcomers for the problems generated not only by other companies but also by a completely different sector," says Sergio Puch, commercial manager of Corpesa, one of the largest integrated service companies operating in Peru.

Fears of contagion spreading into the oil and gas sector have led to a new law of "Prior Consultation," which requires majority approval by the surrounding population before a block comes up for bids, and is a hotly debated topic.

Asked about fears the law could effectively hold the sector hostage, PeruPetro's Ortiz says: "The result of the consultation is not binding, and the final decision lies with the government, which can decide in favor of a project even if local communities are against it. However, we are committed to ensure that local commu-

nities are informed and asked their opinion before activities take place in their territories, which is highly valued by communities and local authorities."

Although some consider the law drastic, most agree it is a move in the right direction. "Many of the social and environmental problems we have in Peru today exist because of outdated practices, which obviously need to change. Many people complain that local governments do not do enough, but it is companies that are the real force for leading the change," says Cesar Pindado, managing partner of ERM, a Spanish social, environmental and risks consultancy with a long track record in Peru and that "serves as the middle ground" between clients, regulatory agencies and local communities.

Many agree that companies do take community integration seri-

Setemin
SETEMIN INGENIEROS S.A.C.

**PREMIUM PROFESSIONAL CONSULTING SERVICES
FOR THE OIL & GAS, MINING, CIVIL CONSTRUCTION
AND MANUFACTURING SECTORS SINCE 1987**

We are ready to help you in a new experience in Peru:

- Environmental Management
- Environmental Assessment
- Social Impact Programs
- Clean Development Mechanism Projects
- Business and Investment Projects, Market Research
Reports, Company Formations, Partnership Evaluations
and Due Diligence

Address: Calle San Martín N° 430 - Oficina 303, Miraflores, Lima, PERU
Phone: +51.1. 241.3140 | **Tele-fax:** +51.1.444.1609
jvera@setemin.com | www.setemin.com



▶ **NEED INTEGRATED SOLUTIONS?
ASK GOLDER.**

We see solutions where others don't. For over 50 years Golder has been providing the oil and gas industry with integrated engineering, environmental and social services for all types of exploration, development, and production activities. We have the right people to get the job done. **Engineering Earth's Development, Preserving Earth's Integrity.**

Peru +51 (1) 610-1700
gapsa@golder.com.pe
www.golder.com



Mr. Rafael Dávila, managing director and principal, Golder Associates in Peru

ously enough, but that communication still poses a problem. "Today we see a huge and challenging cleavage between local communities and companies, because the state has yet to find a regulatory formula that speaks both their languages. Many companies decided to do things right in their own way and went beyond the regulations. These companies were the most successful ones in Peru," says Jorge Vera, general manager of Setemin Ingenieros, one of the first companies to expand its geological services to offer regulatory, social and environmental consultancy services in Peru, preceding what has now become a solid trend.

"Regulations should be created that allow companies to plan their activities in the long term, understanding exactly what they are expected to provide to the local communities. Peru is bringing in the experience from other countries and we believe that there should be fewer regulations; but the ones left must be well designed and enforced effectively," he adds.

S&S: Where local and international expertise meet

Between an abundance of complicated geography, and a severe lack of infrastructure, operations in Peru are usually a major logistical challenge. Peru's oil production and reserves are concentrated in the northern jungles, a region rife with technical and social difficulties. Going west involves long periods of river navigation, dictated by the rainy season, in areas reserved for indigenous tribes. To go south, oil must cross the Andes, South America's largest mountain range, reaching heights of nearly 5,000 meters before arriving in Lima.

Hunt Oil's Bruce says, "Our pipelines pass through extremely remote areas and extreme altitudes in which even simple actions like welding, or celebrating the com-

pletion of a section, become enormous technical challenges. Peru's landscape means that we require a lot of technical support and, achieving it means relying heavily on training."

Recently, standards have increased. "The regulations are becoming increasingly stricter and, for example, companies are no longer allowed to burn associated gas. Given how common finding associated gas is, this requires immediate resolution," says Mario Contreras, country manager of Exterran, a company making early production facilities that allow clients to generate electricity from associated gas, even with the very high levels of carbon dioxide that would otherwise make it unsuitable for generation.

More onerous regulations do not reflect the reality of current operations, however. "In 1992, when the first legislative texts were being drafted, no one imagined the sector would have evolved like this," says José Antonio Otarila, general manager of Venegas, a customs agent and broker specialized in international trade for oil and gas companies in Peru. "In 1994, another more specific legislation was drafted; however, it was focused on operations in the jungle. Today there are operations happening everywhere and not only in the jungle. Our clients are bringing large vessels in order to explore and produce oil in offshore blocks; nevertheless, the current legislation is not ready for this."

Even companies whose focus has been in areas other than E&P are eyeing Peru's oil and gas potential. Golder Associates, the international engineering consultancy renowned for its services in mining, has plans to be more active in the oil and gas sector. Rafael Dávila, managing director, explains: "The greatest challenge is to build the infrastructure required to overcome some of Peru's natural geographical difficulties, such as crossing the Andes. This country will not develop completely unless it has infrastructure, transportation pipelines and a link to connect the highlands with the coast.

"Another challenge is the water. Only 5% of water resources can be found along the coast, which is where 70% of the Peruvians live. All the remaining water is in the Amazon, but the population in that region is very scarce."

Competition is low, however, and logistics and scarcity drive up costs. "Today, the costs for drilling in Peru are substantially more expensive than in Colombia because there are fewer services providers," says Ecopetrol's Rendón. "Another problem we have in Peru is that there is a shortage of skilled labor, which is even worse than in many countries. Many international companies are bringing critical personnel from overseas in order to continue exploring, drilling and producing."

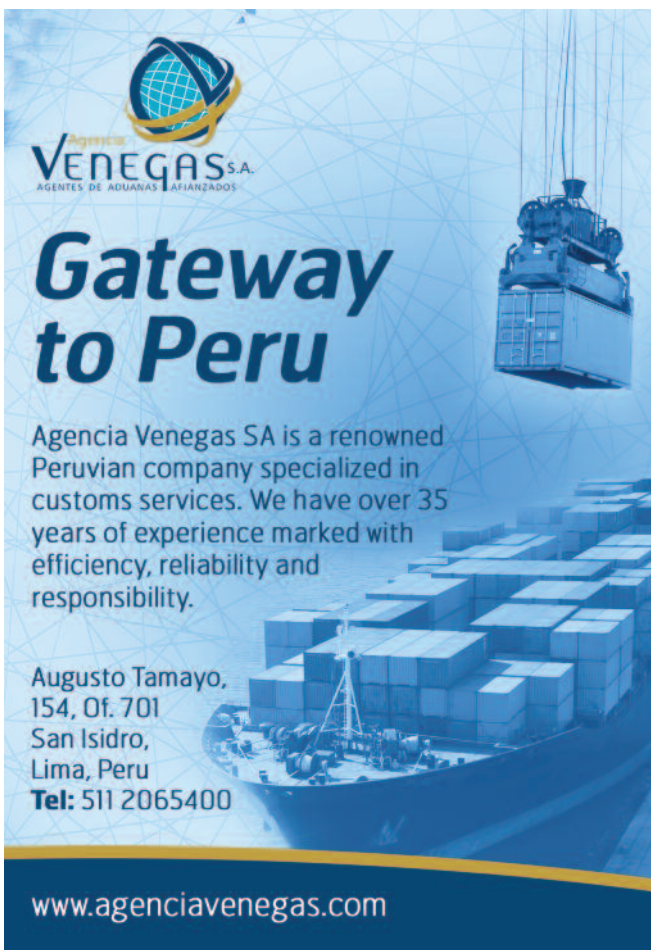
Finance and law

Peru's stable legal framework has been a principal attraction for new arrivals. As regulations and operating parameters become increasingly complex, Peruvian law has continuously evolved to accommodate the needs of the changing oil and gas sector.

The energy sector's development is, in many ways, unavoidable. "If the current growth rates keep up, there will be a shortage of electricity," explains Jaime Quijandría, partner at Laub & Quijandría, a law firm and business consultancy focused on electric energy and oil and gas, who is very optimistic about the sector. "To avoid this, many measures should be taken and decisions will have to be made. Gas plants can be built in 18 months and this development also brings many positive side-effects to the communities, because gas can be used for other purposes as well."

For the oil and gas sector to flourish, financing channels must remain open. "The reality is that costs have increased in the oil sector. Still, the risk of the Peruvian oil sector has remained steady, and is not nearly as great as it is in other countries," says Emiliano Zuñiga, vice president of the directory of Latin Pacific Capital, an investment bank and energy fund channeling overseas money.

Asked if international investors are aware of Peru's potential, Karoon's Hosking says, "Australian investors are still learning about South America. When we present investors with the risks, we need to provide very detailed descriptions about the differences between Peruvian and Brazilian realities, and put into perspective that parts of Latin America are building a new tradition in the oil and gas sec-



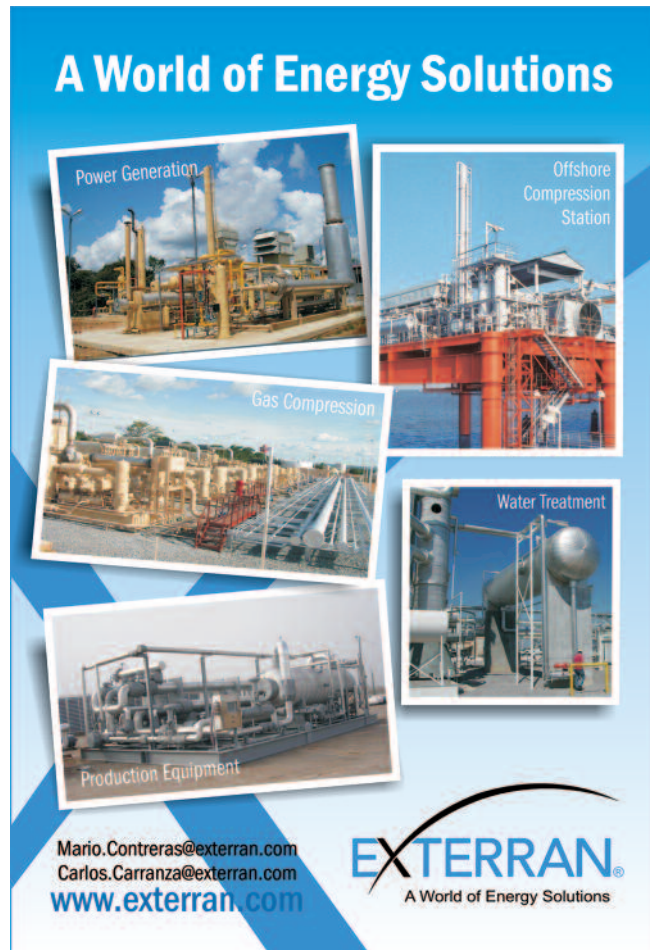
Agencia VENEGAS S.A.
AGENTES DE ADUANAS AFIANZADOS

Gateway to Peru

Agencia Venegas SA is a renowned Peruvian company specialized in customs services. We have over 35 years of experience marked with efficiency, reliability and responsibility.

Augusto Tamayo,
154, Of. 701
San Isidro,
Lima, Peru
Tel: 511 2065400

www.agenciavenegas.com



A World of Energy Solutions

Power Generation

Offshore Compression Station

Gas Compression

Water Treatment

Production Equipment

Mario.Contreras@exterran.com
Carlos.Carranza@exterran.com
www.exterran.com

EXTERRAN
A World of Energy Solutions



The Zocalo platform

country, but they have increasingly shifted to having dedicated hydrocarbon sections.

The future

Companies might disagree on the extent, but it is common to hear comparisons of the potential of Peru and Colombia. Indeed, from Ecopetrol to Pecsca, Colombian expertise is an increasingly common feature of the Peruvian investment landscape.

The question remains, however, whether Peru will take 10 years to develop a market similar to Colombia's or if it will use its neighbor's example to take intelligent shortcuts. A little over a decade ago, there was not a single oil and gas company listed in the Bogotá Stock Exchange. Today, these companies constitute about 40% of listed companies. Considering the recent initiative of unifying the stock exchanges of Bogotá, Lima and Santiago under the umbrella organisation MILA, the potential for more oil and gas companies

from Peru to go public is substantial.

With large unexplored potential, successful projects already under their belts and a fairly stable and pro-business government, Peru could rise quickly from its current level of eighth-largest producer in Latin America. The next bidding round should be a fair thermometer as to how the market is evaluating the recent developments in the country.

Projections for Peru are optimistic, but the realization of its potential will likely take longer than expected. The country's problematic bureaucracy and its social and environmental problems will consume precious time, and not enough steps are being taken to ensure that lessons learned in

Colombia are appropriated in Peru.

Eventually, the natural growth of the country and the rising demand for electricity will be a strong push for the government to revise its practices and to become more efficient when issuing permits and more decisive when designing laws that describe the obligations and the dynamics between companies, local communities and the environment they are operating in. It will ultimately fall to internal economic growth to push for reform in the underuse of Peru's substantial resources.

Although there are problems to resolve, investors are plentiful. As Latin Pacific Capital's Zúñiga says: "There is great potential for investors, ranging from upstream to the refining industry and in infrastructure more broadly. In the last few years, Peru has stood out in terms of economic management. In general, most investors are foreigners, but today there is increasing local interest as well."

The total hydrocarbon potential of the Peruvian jungle is still unknown, but expectations are large. "Petrobras has already invested nearly \$600 million in the exploration of its southern fields and, although it is still unofficial, we believe this region has large reserves of gas. The southern part of Peru is one of the few regions in the world where Petrobras has had an almost 100% success rate in finding gas. Petrobras expects to invest a total of \$2 billion to fully develop its fields," says Braskem's Thiesen.

Now is the moment to be in Peru—before the geological potential is fully explored and while the infrastructure is yet to be built. Those who manage to plant their flags early will not only enjoy the benefits that will come with growth but will also have an upper hand once the market reaches maturity. In the past, the development of the oil and gas sector in Peru was a matter of "if." Today, it is a matter of "when." □

tor. However, many of our North American institutional investors understand Latin America with great detail, as there is a longer history of operations in the region and Peru and Brazil are becoming ever more accepted markets internationally."

"In the past 15 years we have observed a dramatic increase in projects involving investment funds that are looking for oil and gas companies in the country," says Orlando Marchesi, a partner with PWC. He believes international investor interest in the sector has soared.

Large consultancies such as PWC already had a significant presence in Peru, assisting in project development and orienting investors to make the most of the

LATIN PACIFIC
C · A · P · I · T · A · L
www.lpcapital.com

**Leading investment bank
focused on Latin America**

WHO WE ARE

- Latin Pacific Capital S.A. developing the rich natural resources
- Active in mining, energy and oil & gas sectors
- Over US\$ 8.0 bn in transaction value

WHAT WE DO

Financial Advisory • Mergers and Acquisitions
Privatizations and Concessions • Project Finance

Av. Jorge Basadre 1101 San Isidro, Lima Perú
Tel: (511) 4423394 (511) 4426484

