

Brazilian basics

Heller Redo Barroso, founding partner, and Marcos Macedo, associate lawyer, at Heller Redo Barroso & Associates, Rio de Janeiro, Brazil, give invaluable insight into the Brazilian oil and gas industry and how foreign companies can most effectively participate in this market.

Buoyed by GDP growth of over 3% every year since 2004, Brazil is currently frantically building new infrastructure to develop its vast reserves of natural resources - in particular, the so-called pre-salt cluster, in the Atlantic Ocean, which is part of a region that extends about 800 km along the coast of Brazil from Espirito Santo state to Santa Catarina state. The cluster's oil has been found in waters as deep as 3000 m and as much as 7000 m below the seabed beneath a layer of salt. The area comprises 112 000 km² in deep and ultra-deep water reservoirs, of which 41 000 km² have not yet been put up for tender. It is the "most significant oil discovery in the past 20 years", according to Wood Mackenzie consultants.

The conductor of the orchestra will be state-owned company Petrobras, along with a new company to be created, Petrosal, very much alike Norwegian Petoro. Knowing how to deal with these companies will be key for the success of old both incumbent and new players in the Brazilian oil and gas game.

These tenders will all contain gradually increasing minimum local content requirements that can go as high as 95% in 2017. This means that interested companies should run and start looking out for local partnerships, areas to establish new facilities, operational bases, enrolment as supplier with Petrobras (CRCC), etc.

In order to implement such audacious plans, Petrobras will rely on large capitalisation from shareholders, especially

the controlling stakeholder, the Brazilian government. Petrobras will further count on cheap and abundant financing from government development bank BNDES, and other state-owned banks.

In order to reduce prices of equipment, and at the same time allow for the gradual escalation of local content requirement in its projects, the company is breaking up large EPC, service and supply contracts into smaller packages, emphasising greater detail and standardisation of orders, starting with an ambitious programme of eight FPSOs to be locally built, in a dry-dock chartered by Petrobras itself in the southern part of Brazil, in Rio Grande. In order to reduce prices, Petrobras is also planning to revise its standard contracts in order to reduce risk to the supplier.

The target is to produce 3.3 million bpd of equivalent oil (boe/d) by 2013, and 4 million by 2020, along with 5100 boe/d of natural gas by 2020.

Private companies are coming up with huge investments as well. Devon, Shell, Chevron and StatoilHydro will collectively invest US\$ 25 billion through to 2013.

In addition to this, a new law opened up concessions for gas pipelines. Among the projects already authorised for tender is the 948 km Middle North Gas Pipeline, budgeted at US\$ 1.6 billion.

Petrobras, in addition to the daring plans in the E&P sector, is also conducting an ambitious plan of revamping existing refineries and constructing new ones.

In the gas sector, US\$ 3 billion will be spent on developing infrastructure for LNG. The target is to build a liquefaction plant to come into operation in 2013 with a capacity to liquefy 10 million m³/d.

Petrobras also intends to build a terminal for docking LNG tankers in order to be able to export LNG. Two LNG terminals exist today (Pecém and Guanabara), and a third one will likely be built in Rio Grande in the short-term, with a capacity for 14 million m³/d. A fourth one is also been studied. Also under study is the expansion of the LNG terminal in the Guanabara Bay, from current 14 million m³/d to 20 million. With all the projects, Petrobras estimates capacity of 166 million m³/d of natural gas in 2017.

The seasonal demand for gas is characteristic of the Brazilian electrical system, based on hydroelectric plants and safeguarded by the energy generated by predominantly natural gas-fired thermoelectric plants (if we consider the ones already under construction and the future public tenders for the construction of new thermoelectric plants, which is also a niche worth exploring by foreign investors, then Brazil needs an additional 3 - 4 GW power plant installed capacity per year, considering current expected GDP growth rates for the next five years. Some 75% of this is still hydroelectric power, but thermal power tends to increase and occupy a larger share of the pie.

Petrobras is the sixth larger electrical generator in the country with 5461 MW of installed capacity, and is going to invest US\$ 2.4 billion in the sector for expansion through 2013. Installed capacity is forecast to increase from 99 747 MW to 154 797 MW by 2017, which represents an increase of 55% in the current generation capacity.

In addition to Petrobras investments, a further US\$ 80 billion will be invested in the electrical sector through 2017 - US\$ 63 billion for generation and US\$ 39.1 billion for transmission.

Wind power is also a promising sector in the Brazilian marketplace. This year, the first tender exclusively focused on wind power projects will be carried out. So far 1.2 GW worth of projects to be put up for tender have been registered with the relevant regulatory agency, ANEEL.

On top of all this, new ports and shipyards are already under construction. It is likely that every major shipyard in the world will have a significant presence in Brazil (in association with local major contractors) in the next couple of years.

In addition, ANP has not since 2007 held tender for new offshore exploration areas. The industry is pressing government to conduct tenders of outside-pre-salt areas urgently, for it cannot be in such a standstill for so long. The government froze all tenders until the new regulatory framework for pre-salt is introduced. This includes production sharing agreements for new areas and maintaining the concession regime for the areas already tendered, some as long ago as 2000. The model

is very much like the Russian model, only that the PSC is mandatory for the new areas, and not discretionary. One can thus expect new tender for promising areas outside the pre-salt areas.

Tenders for the pre-salt areas may take a while to come up, since a government-proposed specific regulatory framework for the pre-salt cluster has just been passed on to Congress in the form of four different bills.

In the pre-salt area, the Brazilian government has already made it clear that the national content requirements in E&P will escalate to around 85 - 95%. This means that whoever wishes to have a piece of the pre-salt pie will have to establish significant local presence, in particular equipment suppliers (topsides, pipes, risers, umbilicals, drilling packages, power packages for offshore units, etc.), who will likely need to build production facilities in Brazil.

Newcomers to Brazil's oil and gas marketplace are usually dismayed by what seems like an overly complex, heavily regulated and bureaucracy-prone legal system. Companies worry about corruption, and about securing their assets against unlawful seizure or nationalisation. These are somewhat far-fetched concerns in today's Brazil, but understandable ones if we look at the country's not-so-distant past, and at the Latin American neighbourhood.

The hard facts are:

- Brazil boasts a booming economy barely shackled by the worldwide financial meltdown.
- Brazil is an investment-grade country.
- Brazil blossoms among the BRICs.
- Brazil is clearly poised to become the huge next safe hub for the world's smart money.

Offshore industry transformation

To capitalise on the long-term opportunities Brazil's vast offshore treasure chest offers, Petrobras, the state-controlled oil giant, will itself be investing a whopping US\$ 174 billion through to 2013. A total of 23 development and production projects are forecast to be up and running by then. By 2020, the company may well have invested US\$ 111 billion in the pre-salt reservoirs alone.

As reported, Petrobras is about to embark on a spending spree from a gigantic shopping list that includes 550 generators, 550 derricks, 350 turbines, 700,000 t of structural steel for platform hulls, 550 wet Christmas trees, 500 wellheads, 80 000 pumps, 18 000 storage tanks, and 4000 km of flexible lines and it doesn't stop there. It goes on for 55 000 more items, of which drilling packages and FPSO packages, subsea equipment and compressors are considered to be the most critical. And there will be contracts for rigs and platforms that will be chartered under service agreements: 24 drilling rigs for 10 000 - 14 000 ft, mostly drillships and some semi-submersibles, 200 support vessels (especially pipelayers, AHTSs, PSVs, tug and tow boats, and line handlers), 18 FPSOs, and so on, and so on. The company will also renovate its oil tanker

fleet, with 26 ships already contracted and another 23 up for bidding later.

Needless to say, Brazil will become a gold mine for suppliers and service providers in the worldwide offshore petroleum industry. But there is one catch. These vendors will likely be required to meet an ever-growing “local content” percentage established by Petrobras (which may end up controlling over 90% of the exploratory blocks). And Petrobras will have targets to reach with Brazil’s National Agency for Oil, Gas, and Biofuels (ANP) regarding national content and will most assuredly pass on these requirements to its supply chain.

‘Dutch disease’ and local content policy

The discovery of massive oil reservoirs can be both a blessing and a curse to a country. These windfalls can cause the so-called ‘Dutch disease’ - experienced 50 years ago by the country of Holland, when big petroleum finds triggered massive cash inflows and currency exchange escalation. As the country’s economy became more dependent on hydrocarbons, the redirection of funds and inflationary forces seriously disrupted other sectors. This shift toward exporting natural resources and away from industrialised products is just the opposite of what has characterised developed countries. It was not exactly what the Dutch had bargained for.

To avoid the Dutch disease, the latest thinking from the Brazilian Government is to seek to channel outside pre-salt funds into building up the country’s industrialised infrastructure - specifically sectors vital for exploiting the submerged black gold over the long haul.

While pushing for the gradual escalation of local content requirement in its projects, Petrobras is also seeking to shave prices by breaking up large EPC, service, and supply contracts into smaller packages, emphasising greater detail and standardisation of orders. This will kick off with the eight FPSOs to be in Rio Grande. As another aid in reducing prices, Petrobras is also planning to revise its standard contracts in ways that will reduce risks to suppliers. Regardless of the particulars, and in view of the petroleum self-sufficiency the country has recently achieved, Brazil wants to play the game of selling globally but spending its cost of sales at home.

History of the local content concept

Basically, “local content” consists of contractual commitments embedded in concession contracts (oil licences, or oil lease licences in some jurisdictions), whereby the concessionaires are required to procure a minimum percentage of equipment and services from local suppliers. By upping such demands throughout the country’s exploration and production projects, Brazil aims at fostering the development of a strong local offshore petroleum industry supply chain.

Naturally any obligation imposed on the concessionaires (licence holders) will subsequently be mirrored in contracts down the line with their suppliers and contractors.

However, in practical terms, the concessionaires (remembering that Petrobras is likely to have a hand in 90% of all concessions) will require varying levels of local content from its suppliers and contractors based on the specific type of activity. Technology-intensive products and services will carry a lower local content percentage rather than low-tech activities. This is obviously because Brazil still lacks an installed capacity for high-tech work in the offshore industry.

Under Brazil’s current regulatory framework, local content commitment is one of the judgment criteria applied in evaluating bidders’ offers, together with the Minimum Exploratory Program and the Signature Bonus. In presenting their offers, bidders indicate a specific percentage of local content, which is turned into a number of points used to rank bidders’ offers along with other parameters.

Historically, during bidding rounds one to four for oil concessions, there were no minimum requirements for local content commitment. The local content percentage had a cap and counted only for minor effects. Companies offered their local content commitment for both the exploration phase and the development stage, limited to the cap provided in the bidding.

In rounds five and six, minimum commitment percentages were introduced. These varied depending on the blocks’ locations (onshore, shallow water, and deepwater). In these rounds, local content gained more weight in evaluating bidders’ offers and percentages were pumped up from the earlier 15 - 40%.

In ensuing rounds, up to the ninth and last offshore bid round (the tenth round auctioned only onshore blocks), the bidding indicated both minimum and maximum percentages of local content. Shallow water blocks were split into two types (shallow water up to 100 m, and shallow water from 100 m up to 400 m). In these auctions, the weight of local content was reduced to 20% of bids’ final point evaluations.

Evolution of local content policy

Surprisingly, local content policy is not expressly established in Brazil’s current Petroleum Law (Law 9.478/97). The development of local industry is mentioned (and briefly at that) only in the section of the law on the national energy policy’s main principles.

In the first few bidding rounds conducted by ANP, local content commitment was mainly regulated by concession contract provisions. Later, ANP established (in Ordinance 180/2003) specific rules regarding the reporting and monitoring of local content.

In bidding round seven, ANP introduced major changes in concession contract provisions and created a guide book for concessionaires to use in monitoring the fulfillment of local content commitments. The impetus was PROMINP (Programa de Mobilização da Indústria Nacional de Petróleo e Gás Natural - Mobilisation Program for the Oil and Gas National Industry), introduced in 2003 and first applied to the licenses in the seventh bidding round.

Since its inception, PROMINP has significantly raised the participation of local industry in investments in Brazil's oil and gas sector from 57% in 2003 to 75% in the first half of 2009. This represents additional value of US\$ 14.2 billion for goods and services purchased in the Brazilian marketplace. Estimates indicate that 640 000 new jobs were created in this period. To sum up, commitment to PROMINP significantly increased local participation from US\$ 35 billion in the years 2003/2007 to US\$ 190 billion expected for the years 2009/2013.

With this new scenario, Petrobras and other oil and gas players operating in Brazil will demand locally-produced goods and services in increasingly larger amounts. This offers a great opportunity for local companies (even those with foreign ownership) to supply locally (in the most efficient manner) materials, equipment, components, and services in a shorter period of time while still meeting the industry high quality standards. Of course, they must be prepared to move quickly to become enrolled on the CRCC vendors list with Petrobras.

As far as regulation goes, ANP crafted a local content certification system to be applied in concession agreements between ANP and the concessionaires. This complies with contractual requirements established since Round seven. This regulation already constitutes a set of four administrative acts.

The "Local Content Certificate" is a document issued by a 'certifier' that is pre-registered with ANP. Currently, the most important certifier is ONIP, which is also the one appointed by Petrobras in almost all their contracts. ONIP has 2000 companies registered as members, all of them participating in the supply chain for the offshore petroleum industry.

The certification is conducted according to a template made available by ANP. It states the percentage of local content of the particular good or service hired for measurement. Activities are carried out by an entity duly accredited by the ANP (regardless of commercial relationship) to publicly certify, through issuance of a certificate, that a given good or service is in compliance with the requirements established in the Regulations of Local Content Certification.

According to Administrative Act ANP no. 36, the agreement executed between the certifier and contracting party will necessarily contain:

- Clear definition of the product, product for temporal use (goods used in rental agreements, charter party, tenancy, or operational or financial leasing, etc.), service, subsystem, system, or set of systems to be certified.
- The schedule for the certification activities.
- A contract clause stipulating that all activities will be carried out according to present regulations.
- Identification of certifier personnel involved in the execution of activities.

- Identification of contracting party personnel responsible for conducting the activities.
- Definition of access, examination, and analysis of:
 - The documentation to be analysed.
 - The productive processes necessary for the preparation of the product to be certified.
 - The constituent components of the product to be certified.
 - The outsourced and/or subcontracted components and relevant documentation.
 - The imported components and relevant documentation.
- Prices and commercial conditions of the certification agreement.
- The agreement identification code.

Definitions, methods, and criteria for calculation of local content of goods, goods for temporal use, services, subsystems, systems and set of systems related to oil and natural gas exploration and production activities are those contained in the local content primer according to Annex III of Administrative Act ANP 36. English translations of all these Administrative Acts relating to PROMINP and national content can be downloaded from the Heller Redo Barosso web page (www.hrblaw.com.br).

For example, the local content percentage (CLb) for goods is applicable to equipment and materials and is calculated using the following formula:

$$CLb = (1 - x/y) \times 100 \text{ where:}$$

'X' stands for the price of imported components (in R\$), including raw material.

'Y' stands for the sale price of product in practice, excluding IPI and ICMS.

In parallel, the Brazilian Government created the Fund to Ensure Shipbuilding ('FGCN') to mitigate the risks of completion, performance and credit connected with the construction of new yards and manufacturing facilities in the oil supply chain. FGCN will mainly support the credit risks of financing the construction of drilling rigs.

Petrobras will also negotiate with local banks a Special Programme of Credit with certain conditions to fund development of the local offshore petroleum industry supply chain.

The CRCC

The plan for CRCC is to build a database of prequalified service providers and suppliers organised according to their products or services, so as to expedite Petrobras's purchasing process. As Petrobras needs such products or services, bidding or negotiation will be simpler and faster, largely based on price and delivery capabilities. This will dispense with the current extensive examination of products on a case-by-case basis, which is obviously time consuming and counter productive for Petrobras.

Furthermore, Petrobras can decide to invite companies to participate in biddings or direct purchase negotiations

on the basis of information contained in the CRCC database.

CRCC has existed for a long time but was largely dispensed with in international purchases and in most deals with the majors. However, in a few months, it is likely that companies without CRCC registration will be prevented from selling or providing services to Petrobras. Moreover, there is a noticeable trend in making CRCC enrollment a requirement for qualification of companies for biddings. This is being especially pressured by the Petrobras Engineering Division.

CRCC may also be used as an instrument to control domestic content requirement. For example, the companies registered will also be prequalified considering their "local content". CRCC may then be updated from time to time as companies become more and more "Brazilian", or "tropicalised".

Achievements of the Local Content Policy to date

In the early concession bidding rounds, the local content commitment was very soft - e.g. in BM-ES-1, the local content commitment was 5% in the exploration phase and 15% in the development stage. However, in the latest rounds we have noticed a major push in the offered percentages, some reaching as high as 80%. In view of this more aggressive scenario, oil companies - most notably Petrobras - have started to contract with local suppliers as part of huge projects. Two such examples are the R\$ 2.5 billion semi-submersibles P-51 and P-52, with a capacity of 180 000 bpd, to be built by Keppel and Technip with local content requirements of 65% and 55% respectively.

Other recent projects with sizable local content include part of the construction of FPSO P-54; modernisation of FPSO P-34, and construction of the topsides of FPSO P-63.

In addition to these major capital-consuming projects, we could also cite numerous other engineering projects involving the construction and installation of subsea systems, support vessels, and offshore cranes as examples of increasing local content.

Likely changes in Local Content commitment

A very sensitive point in the currently proposed regulatory changes for oil concessions is the direct hand of the government in managing E&P projects. According to the wording incorporated in the new proposed framework for hydrocarbon exploration in the pre-salt area, a new 100% government-owned company (named 'Petro-Sal') would essentially mastermind all E&P projects in the pre-salt region. For every concession, it would have the right to name half of the operating committee members, including the chairman, who would have a tie-breaking vote and veto powers.

Accordingly, the new public company would have control over any decision of the operating committees, including the contracting of services and goods. This

would enable its representatives to require higher scale of local content, or even bestow on them the power to decide on contracting certain local suppliers.

Furthermore, the new regulatory framework has introduced the concept of "sole operator": it sets forth that Petrobras will operate all pre-salt areas. Since Petrobras is essentially controlled by the government, government officials will therefore pull the strings at Petrobras so as to make it the chief enforcer for implementing national local content policy (e.g. by making Petrobras's vendor's list - CRCC enrollment - a requirement in future biddings and contracts).

First come, first served

In light of recent government statements, local content requirements will undoubtedly climb, thereby forcing interested international suppliers to set up and run Brazilian subsidiaries in order to participate in the massive oil revenues that will begin to flow from the pre-salt region.

As previously mentioned, in the pre-salt area, the Brazilian government has already signaled national content requirements of 85 - 95% for some items by the year 2020. This means that players wanting to have a piece of the pre-salt pie will have to pull together significant local presence. In particular, equipment suppliers will likely need to build production facilities in Brazil. There will be no getting around it.

The new policies will affect, without limitation, activities such as the purchase and sale, construction, conversion, upgrade and chartering (bareboat, time and voyage charters) of ships and offshore units. This would include a lengthy list of vessels such as jack-ups, spars, TLPs, pipe-layers, ROVs, floatels, semi-submersibles, drillships, FPSOs, FSOs, as well as support vessels (PSVs, line handlers, AHTs), seismic vessels, and coastal-trade and long-haul bulk-carriers, chemical and oil-tankers, and LNG vessels (including FSRVs and SRVs).

Equipment supply will probably be the hardest hit: drilling packages, topsides and the subsea systems, and equipment 'by the piece' such as offshore cranes, manifolds, turrets, derricks, cantilevers, umbilicals, risers, wet x-mas trees, thrusters, power modules, compression modules and hydraulic pumps.

Consequently, some major international offshore contractors and suppliers are already jump starting their competitive position by establishing operational and manufacturing facilities in Brazil. This is the only way these companies will be able to have contracts with Petrobras or Petrobras contractors in the near future. Even prior direct association with local Brazilian companies will become insufficient in the very near future, as the lack of local content from a foreign supplier or contractor could jeopardize a project even if the company is an established subcontractor to a contractor of Petrobras.

The CRCC and the new procurement department at Petrobras's Engineering Division will certainly be two very powerful forces for realising the ambitious domestic

content targets within the very short time-frame set out by the Brazilian government.

Due to the lack of local installed capacity of the major international players in the offshore petroleum industry, bidding and direct negotiation invitations are currently going mostly to Brazilian contractors, who in turn will procure technological partners, operators, financial partners, and project managers from abroad

Most of these Brazilian contractors are unfamiliar with the finer details of the offshore petroleum industry and somewhat 'illiterate' in the high-tech end of it. So they are quite dependent on associations with international companies. This is a huge opportunity for international suppliers and contractors to begin opening the door into Brazil: start with associations. But players should always bear in mind, as mentioned before, that associations should only be a first a step toward future independent standing achieved through the construction of local presence and infrastructure. For those companies that do not know, a company is deemed to be a 'Brazilian company' for local content purposes if it is incorporated in Brazil. For the purposes of quantifying local content, certifiers will certainly check on how many Brazilian employees the company has, what are its local assets, and what is the percentage of imported items. Although this somewhat oversimplifies the process, the message is clear.

By becoming established in Brazil, foreign companies may be directly invited to participate in auctions where high national content is required, therefore allowing it to compete with 'native' Brazilian contractors.

But the early birds are already chasing the worms. New ports and shipyards are currently under construction. Every major global shipyard is already involved in Brazil, negotiating the construction of their own yards here, all of them in association with the biggest Brazilian conglomerates. All the Korean yards are here, for example.

Despite these challenges, the Brazilian pre-salt region, also nicknamed as the 'blue rump steak' due to its shape, still represents one of the best business opportunities for E&P services and goods providers throughout the world.

Companies ready to come and establish local manufacturing capacity in Brazil and forge strategic associations will be well-positioned for a head start in the run for black gold.

Heller Redo Barroso & Associates is a Rio-based boutique law firm specialised in oil and gas, power, shipping, and the offshore petroleum industry.

