LUISS BUSINESS CASES

A gas-fired combined cycle power plant in the Republic of Armenia: a winning international partnership

Matteo Caroli
Luiss University

Leopoldo Mandelli
Renco Group S.p.A.

Luca Silla
SIMEST S.p.A.

Amerigo Silvestri
ArmPower Armenia

TEACHING CASES 2020

ISBN 978-88-6105-563-6

LUISS

Disclaimer

Matteo Caroli, Leopoldo Mandelli, Luca Silla and Amerigo Silvestri (the "Authors") wrote this paper purely to provide material for educational purposes and class discussion. The Authors do not intend to illustrate either effective or infective handling of a managerial situation. The Authors may have changed certain names, facts representation and other identifying information to protect confidentiality and to meet educational objectives. The information contained herein are based on the personal knowledge and opinion of the Authors who will be solely responsible for their own assessment. Therefore, the contents of this paper shall not be taken as any form of undertaking or representation by the referenced Institutions, Companies and Financial Agencies which are mentioned as references only.

1. Introduction

In December 2016, the government of the Republic of Armenia (RA) signed a memorandum of understanding (MoU) with an Italian medium-sized construction company, Renco S.p.A Group (RESpa). The MoU detailed the indicative commitments of the three pivotal counterparts potentially involved: the Armenian government (the project promoter), RESpa (the project's main initial developer) and the to-be-established project company (the special purpose vehicle – SPV or "project company"). The MoU, based on a Build-Own-and-Operate (BOO) project financing contractual framework, defined the preliminary responsibilities concerning the design, construction, operation and maintenance of a 250MW gas-fired combined cycle power plant in Yerevan, Armenia's capital city (the "project"). The new plant was originally expected to replace part of the energy production of an old nuclear power plant which needed to be refurbished.

For RESpa and its top management, the Chairman and the CEO, the MoU constituted a real turning point and great opportunity to improve RESpa's track record and market position as an emerging international EPC (engineering, procurement and construction) player in the energy sector. However, the project encompassed various challenges for RESpa in terms of technical and industrial complexity, legal and commercial matters and, above all, considerable potential employment of capital and financial resources. On the one hand, the CEO and the management team were aware of the opportunity and prestige created by the MoU, but, on the other hand, they knew all too well that the project would generate a variety of critical risks which, if not managed properly, could damage the company's reputation and stress its financial position.

RESpa and its management were therefore required to find an efficient and winning solution to seek industrial and financial partners without losing visibility vis-à-vis Armenian political decision-makers, competitors and other market players. The key success factors for RESpa were identifying the most suitable project working organisation, project partners, several co-investors and the right risk strategy to cover operational and political risks.

2. Company background

Renco S.p.A was an Italian medium-sized engineering, procurement and construction (EPC) company established by its founder, the father of the present chairman and majority shareholder, in 1979. Its headquarters are in Milan and the engineering, operation and administration divisions are based in Pesaro in the Marche Region. RESpa initially built its international presence mainly acting as sub-contractor for the major Italian oil and gas companies in the construction of inshore plants and related infrastructure such as pipelines and plant employees' living facilities. From the early 1980s to the beginning of the current century the growth of RESpa abroad was mainly stimulated by the need for proximity to the major Italian companies in the oil and gas sector, such as ENI, AGIP, Saipem, and so on. The strong presence of these important clients offshore led to the export of RESpa, which continued to be constantly above 50% over the years. A positive consequence was that the management of the company, in contrast to many other Italian family-owned enterprises of the same size, always developed its own business with a mindset that was very open to internationalisation and focused on opportunities coming from the economies of developing countries.

During the first 15-20 years of its activity, the company accessed foreign economies, mainly in Africa and Central Asia, more as a "follower" of its key clients, without specific foreign investment targets, which was in line with its role as contractor or sub-contractor in large supply chains arranged by multinational players. The company therefore had limited commercial exposure to potential local public and private clients due to limited involvement in the negotiations on global master contracts for the projects it was involved with.

However, following the business philosophy established by its founder, RESpa has always retained a strong commitment to developing labour and social conditions in the less developed countries where it operated and generated profits as a subcontractor.[1] In the medium term, this business approach, along with the company's technical know-how in offering high quality standards in the construction of plants and infrastructure, turned out to be a key success factor in the diversification of its revenue mix and in the implementation of a new form of international expansion in specific developing countries. In particular, RESpa's sensitivity and commitment to its local social impact along with its founder's business intuition proved to be instrumental in creating solid relationships with local decision-makers and other international companies, primarily in four core economies having high potential for growth and acceptable country risk – namely, Kazakhstan, the Republic of Congo, Armenia and, more recently, Mozambique. RESpa top management based the selection of the core economies on the business experience gained during the execution of previous projects and their identification of the services and infrastructures that were lacking in order to support the local presence of a large community of personnel working for the major international oil and gas sector companies. In particular, the company successfully positioned itself as a developer and investor in the sector of civil infrastructure and public buildings: tourist resorts, hotels, business and commercial centres, offices, and so on. Thanks to

1. In general, RESpa reinvested about 30%-40% of earnings generated into local projects.

their high standards, RESpa's hotels, resorts and commercial services became popular and appreciated both amongst the foreign employees of multinational companies and amongst international tour operators as their preferred accommodations for tourists. As a result, RESpa started to create employment and positive social impact directly or indirectly in a sector other than its core industrial plants business. This partial shift from the industrial plants sector to civil infrastructure was very beneficial in increasing both revenues and the diversification of the orders portfolio.

Organisation and business model evolution

As a first step in this evolving business model, in 2000 the board of directors approved an initial form of reorganisation:

I) Renco Group was established as the holding company coordinating the two main activities of Renco Spa, which remained an operative company directly in control of an increasing number of foreign subsidiaries active in either real estate management or industrial plants construction;

II) the operation was split into two autonomous profit centres relating to: i) the engineering and construction of industrial plants; and ii) the design, construction and maintenance of infrastructure.

In 2004, for the first time on record, thanks to the increasing and additional contribution of the asset management division, RESpa Group reported an annual production value above €100 million and four years later, in 2008, production value exceeded €200 million, with an annual export share in the range of 75% to 80% (see Exhibit 1). Overall RESpa gained visibility and positions in the ranking of Italian engineering and construction companies and, in particular, its international operations in the core economies identified shifted from a pure major client proximity approach to a more international client-seeking and business diversification strategy. The combination of much-appreciated high quality European standards in the construction of civil infrastructure, its ability to involve first-class Italian architectural firms and its solid experience in the construction of industrial plants substantially increased RESpa's visibility and name recognition in all the foreign economies where it was originally involved as sub-contractor. The greatest results came, of course, from the four countries its management had selected as core destinations, where RESpa had become an important foreign investor in the local market. Its portfolio of clients successfully expanded both in the oil and gas sector – including major non-Italian companies such as General Electric, Total, and Chevron – and in civil infrastructure through the acquisition of contracts from local and international promoters of medium-sized public and private infrastructure projects (see Exhibit 2). Furthermore the company gradually enhanced its operations in the energy generation sector as well as its range of services to include consulting services, the provision of technical staff, urban planning, engineering and post-construction assets management

services, thus positioning itself as a general contractor with respect to medium-sized civil infrastructure contracts. Under the coordination of the holding company, RESpa Group, the organisation of the operative company, Renco Spa, gradually expanded to include an increasing number of highly competent and qualified multilingual professionals; at the same time, several foreign subsidiaries were established under parent company control. With projects completed worldwide in more than 50 countries, RESpa gradually gained extensive international experience and developed into an internationalised company operating with 40 subsidiaries and branches established in 19 countries in several geographical areas with high potential such as Eastern Europe, the Caucasus, and Sub-Saharan Africa (see Exhibit 3).
In order to achieve separate accountability in each line of business, the organisation of RESpa was split into four main internal business units; the Services and Asset Management Divisions were newly created, to be added to the core and existing Industrial Plants Division and Infrastructure Division.

- **Industrial Plants** (40% average share of production value):

This division was in charge of EPC projects for primary companies mainly in the power generation and oil and gas sectors. It offered an integrated range of services in Europe, Africa, Central Asia and Russia, ranging end-to-end from feasibility studies to project management, installation, construction and start-up of industrial plants. Most of the projects were carried out in accordance with "turnkey" contractual provisions. In the energy sector, the main activities were the design, engineering, construction and the global maintenance of small- and medium-sized power generation plants, gas compression plants, and pumping and water treatment plants. In the oil sector, it accumulated considerable experience in the field of oil and gas treatment and transport, through the expansion or upgrade of existing plants or the construction of new turnkey plants.

- **Infrastructures** (22% average share of production value):

Thanks to the engineering experience gained in the energy and oil and gas sectors, this division was able to offer design, construction, start-up and maintenance services for civil and industrial infrastructures. The Infrastructures Division operated mainly in Europe and in a selected number of countries in Eastern Europe and Africa, where its management often operated in close collaboration with some of the most famous Italian architectural design companies.

- **Services** (20% average share of production value):

This division provided high value-added professional services for leading oil and gas clients in relation to plants already in operation or to new ones under construction or in development phases. In the former case, operation and services entailed the management and maintenance of

plants generating recurrent flows of revenues based on a multi-year duration of the contracts. On the other hand, for plants under construction, services concerned the supervision, works management, plant commissioning and start-up, and technical personnel training.

- **Asset Management** (18% average share of production value):

The Asset Management Division was created in 2008 as a spin-off of the Infrastructures Division to manage and maintain RESpa's real estate properties as well as assets owned or leased by clients, mainly large oil and gas companies, international banks, embassies and public institutions. RESpa, in this line of business, offered services with comforts and quality in line with Western European standards, which were particularly appreciated by clients operating or established in less developed countries in Africa or the Middle East.
As at the end of 2016 RESpa group owned and directly managed real estate assets with an estimated gross market value in excess of €350 million. Assets covered 240,000 square meters and 95% were located in foreign developing economies (e.g. Tanzania, the Republic of Congo (Brazzaville), Kazakhstan, Armenia, Russia and Mozambique). Some 60% of these assets were business hotels and tourist resorts, while the remaining 30% were commercial and business centres rented to the subsidiaries of multinational companies, banks or local public institutions.
As at the end of 2016 RESpa's staff comprised more than 300 European professionals and over 1,800 local employees reporting to chief division officers with a solid international reputation in finalising large projects in the four main business areas.
RESpa's business and geographical diversification allowed for a remarkable resilience in the face of the economic crisis experienced by the USA and European economies starting in 2008; first these countries were hit by the financial markets' meltdown, then by the collapse of real estate prices and later on by the sharp decrease in oil prices. RESpa's strategy focussed on the gradual acquisition of market share in the infrastructure sector and on increasing profitability through the direct acquisition of contracts in developing countries, where the company, thanks to several direct investments, enjoyed a strong reputation and strong business relationships. As at the end of 2016 RESpa reported a total production value of approximately €185 million, with a total order book of around €1.1 billion, mainly driven by the Industry and Infrastructures Divisions, which together accounted for about 60% of the total 2016 production volume. In terms of the geographical origin of production value, Africa ranked first with a share of about 33%, followed by a group of former USSR countries with 30%, while Europe and Italy accounted for 14% and 19% respectively, and the remaining 4% came from other foreign countries in the rest of the world.
Within its core business, RESpa adopted an EPC model (engineering, procurement and construction), covering all phases of works, from design, procurement, transport and logistics, development and construction to the post-construction facility management of the plants and infrastructure (see Exhibit 4).

After the execution of a significant number of projects in developing countries with a very limited or even totally lacking local credit market, RESpa professionals started to integrate their engineering and technical knowledge with financial capability and knowledge to structure infrastructure and real estate financing in dealing with international private banks, national and multilateral development agencies, and export credit agencies. This integration of technical and financial skills constituted an important competitive advantage for RESpa in the evolution of its business model and internationalisation development.

3. Armenia: a new prospect for foreign direct investments in the infrastructure and energy sectors

RESpa Group in Armenia

Armenia did not have reserves of fossil fuels and was not a target economy for RESpa's clients. Therefore, in contrast to the other core economies in its international strategy, RESpa did not access this country in the Caucasus area by way of a request from its clients but rather thanks to a specific decision by its founder. In late 1999, during a business trip in Central Asia, he visited Armenia and he perceived a great need for modernisation in its infrastructure and urban systems, as well as great potential for RESpa's business divisions.
Thanks to its founder's wish, RESpa has been present in the Republic of Armenia since 2000 and has operated in various sectors encompassing the construction and management of hotels, commercial buildings, public buildings and medium-sized infrastructure. The largest projects designed and built by RESpa in Armenia have included, among others, a new hospital financed by the World Bank, the headquarters of the Central Bank of Armenia, those of a major local company, those of Nasdaq, the local country office of the Honk Kong Shanghai Bank and the new the Best Western Hotel in Yerevan. In 2016 the company, through its local asset management subsidiary, handled the property and facility management of commercial buildings and hotels in Yerevan's city centre, such as "Piazza Grande", a multipurpose commercial building, the Hilton Hotel, the Grand Hotel Yerevan, and the Embassy of the Republic of Italy. In addition, RESpa built other important public infrastructure such as the cableway to the Tatev Monastery, the camp for Jermuk mine workers, the new national velodrome in Yerevan, and a large subway car parking area in the capital's city centre, which, after the approval in 2000 of the law authorising project finance for public infrastructure, was the first PPP ever structured in the country.
In 2016 RESpa in Armenia employed about 20 Italian expats and around 800 local workers and it constituted one of the biggest foreign investors in the local economy, with more than €50 million in real estate properties and other direct investments.

The developing trend of the Armenian economy after gaining independence in 1991

According to the Easy Doing Business Report of the World Bank, the Republic of Armenia ranked 38th out of 190 countries analysed on direct investment opportunity indexes. Armenia, with a population of about 3 million inhabitants, circa 30% of whom are in Yerevan, the capital city, was a relatively small economy but it had an interesting growth trend starting in the mid-1990s, after gaining independence from the former Union of Soviet Socialist Republics. In 1994, the Armenian government launched a large IMF-sponsored economic liberalisation programme that resulted in positive growth rates during the following ten years. Armenia has also managed to cut inflation, stabilise its currency and privatise most small- and medium-sized enterprises. Economic development was initially driven by the modernisation of the agricultural sector, which made up about 40% of its GDP, and by the construction sector, which up to 2005 accounted for an additional 25%

and was driven by the development of the service sector in urban areas. In 2015 the country's GDP was US$12.4 billion, 3% higher than the previous year, while public debt was relatively under control, at around 48% of the GDP. Armenia had a long-term rating of B1 from Moody's and B+ from Fitch rating agencies. Thanks to the large community of Armenian emigrants, the local economy received great financial support through remittances and investment from expats. Thanks to the will and support of some important and wealthy expat Armenians starting int the second half of the '90s, it developed a very efficient education system with the objective of creating a new local class of managers able to guide the economy through a modernisation process.

The need for modernisation and diversification of energy production sources in Armenia

In the wake of the independence gained in 1991 from the former USSR, Armenia has been trying to fill the gap which had been created in various economic sectors during 70 years of Russian dominance, in terms of efficiency, the modernisation of infrastructure, and the liberalisation of the agricultural and manufacturing sectors.
According to the International Energy Agency, from 2009 to 2015 electricity generation in Armenia increased to nearly 8000 GWh, but it remained below levels achieved before 1990. Due to the obsolescence and the low degree of efficiency of some of its existing power plants, in 2015 Armenia consumed more than twice as much imported natural gas as in 2009. This trend was largely due to an increasing demand for energy from industry, which was not matched by an adequate modernisation of power plants. The exclusive gas transmission and distribution dealer was Gazprom Armenia, a private company 100% owned by the Russian group Gazprom. The demand for gas in Armenia was about 2.5 billion Nm3 per year, while the total availability, coming from Russia and Iran, was about 4.5 billion Nm3/year (2.5 billion from Russia and 2 billion from Iran). In addition, Armenia had a storage capacity of about 150 million Nm3 of gas thanks to the Abovian Underground Gas Storage facility, which ensured the availability of gas to consumers even in the event of temporary network and pipeline failures.
Out of total installed capacity in Armenia, the largest portion of electricity generation (385 MW or about 38% of the total) came from a single plant, the Metsamor nuclear power plant (NPP), 33% from large hydro power plants, 22% from thermal power plants supplied by fossil fuel and the remaining 7% from other renewable sources mainly mini-hydro plants (see Exhibit 5). Armenia did not have any fossil fuel reserves or nuclear fuel, and consequently approximately 60% of its national electricity production relied greatly on importing fuel and it was one of the main negative items in the annual national trade balance deficit.
Metsamor NPP, the major source of energy production in the country, was built between 1976 and 1980 and was the only nuclear power plant in the entire South Caucasus area. However, since the whole area was seismic and exposed to frequent earthquakes, nuclear production was a risky supply source for the population and the environment, with an unpredictable degree of reliability

for the manufacturing system. In fact, after the Spitak earthquake in 1988, the nuclear power plant's operation was forced to stop for 7 years, becoming one of the causes of the Armenian energy crisis in the early 1990s. In addition, there were other reasons; as a matter of fact, although the Republic of Armenia was the sole owner of the plant, the Russian company United Energy Systems (UES) had exclusive management of the plant's generation and maintenance.
To strengthen the energy sector and to safeguard security, the RA passed a law in 1998 allowing for the privatisation of electricity generation and distribution. At the beginning of the second decade of the 21st century, the Armenian parliament updated the law "On Energy Saving and Renewable Energy", which encouraged the use and development of green power generation sources, and approved the construction of new generation thermal power plants. The objective of the government was to replace the installed capacity of the Metsamor NPP and other old and obsolete thermal power plants in order to achieve, in the end, energy cost cutting, a less polluting generation system, and more potential for energy exports to friendly neighbouring countries. The modernisation of the Metsamor NPP was originally scheduled for 2019-2020 and thus would mean a stop in nuclear production and the replacement of its capacity with thermal energy produced through new gas-fired plants.
Globally the Armenian power sector had a very low degree of efficiency due to the operative cycle end stage of most of their power plants. Indeed, 38% of the plants were over 30 years old, with the nuclear power plant close to 40 years of age; the thermal fossil fuel plants exceeded, on average, 22 years of operation and did not meet updated technical and internationally accepted efficiency standards; in addition, 50% of hydroelectric plants were over 50 years old. Once completed, the approved national plan would improve safety, enhance energy sources, and decrease dependence on Russia in terms of fuel procurement and of the operation and maintenance of existing plants. In this regard the Armenian government welcomed the opportunity to attract investment from local and foreign non-Russian investors in order to increase the diversification of players and improve competition in the sector.

The energy sector in Armenia: an overview of its governance and regulation

Administration, government legislation, and sector policy were coordinated by the Ministry of Energy Infrastructure and Natural Resources (MoE) of the Republic of Armenia, whereas regulation, supervision and price policy were overseen by the Public Services Regulatory Commission of the Republic of Armenia (PSRC). Together the MoE and PSRC were the direct and main counterparts for RESpa in the MoU. The transmission grid network was owned by a public company, the High Voltage Electrical Network, while energy transmission and sale were carried out by ENA (Electric Networks of Armenia) a private limited liability company which, under the supervision of the PSRC, was the sole purchaser and sole seller of energy produced in Armenia (see Exhibit 6). ENA belonged to the Russian Group Tashir, established in Moscow in 1987, which en-

compassed 200 subsidiaries in the utilities and infrastructures sectors and had 45,000 employees. In 2015 ENA reported a gross operating margin of US$72.4 million and a satisfactory operative performance, with a percentage of energy wasted in grid distribution standing at 11% and a payment delinquency rate from clients of only 1%. As a part of the 2015 modernisation programme approved by the IMF, the World Bank provided Armenia with a loan of US$52 million to improve the reliability and efficiency of its electricity distribution network.

The new combined cycle power plant in relation to the government's energy section development plan

When it signed the MoU with RESpa at the end of 2016, the Ministry of Energy (MoE) of the Republic of Armenia aimed to take another important step forward in the execution of the approved national plan to develop and modernise the energy sector in the country. The new Power Plant, identified with the name Yerevan Combined Cycle Power Plant 2 ("YCCPP-2"), was expected to meet different Armenian government objectives.

The scope of work for RESpa in relation to the initial Memorandum of Understanding

The Memorandum of Understanding signed between RESpa and the government of Armenia encompassed the design, technical consulting, generation technology procurement, construction, start-up, and operational management of a gas-fired combined-cycle power plant with an annual gross capacity of approximately 250 MW to be built in an industrial area close to Yerevan, the capital of Armenia.
The MoU stated that RESpa had to act as the sole and principle EPC contractor in accordance with a "turnkey" type of undertaking. After the approval of the engineering feasibility study by a commission of experts designated by the MoE and PSRC, the MoU would be implemented following a specific timetable in a framework agreement. The feasibility study had to detail at the least the following main specifications:

Power island technical equipment, procurement and maintenance

- type and technical features of the gas turbine and related generator and required auxiliary components;
- type and technical features of the combined steam turbine, generator and required auxiliary components;
- name, know-how, presence and past track record in Armenia of the manufacturer of the power generation island;

- confirmation by the manufacturer of a committed timetable for the delivery, assembly, testing and start-up of the power island;
- minimum duration of the defects liability period offered by the manufacturer;
- environmental impact according to the selected type of power island;
- guarantee on the productivity and performance ratios of the selected combined cycle power island;
- name, know-how, presence and past track record in Armenia of the company eventually appointed, in addition to that of the manufacturer of the power island, to act as a subcontractor of RESpa in the operation and maintenance of the plant.

Plant site infrastructure and site facilities

- power plant building site;
- list of auxiliary buildings, e.g. administrative offices, training centre, spare parts warehouse, vehicle parking lots, workers and surveillance personnel leaving facility, etc.;
- interconnection to gas, water, water sewerage and discharge system, and electrical grid;
- plant completion date and potential availability of delay liquidated damage.

Project financing terms based on a Build-Own-and-Operate (BOO) financial structure

- governance and equity structure of the project company to be established;
- names and curriculum vitae of the main company project managers;
- terms and conditions of the power purchase agreement (PPA);
- the project company's source of funding and the relative sovereign guarantee requested by the project company to cover commercial risks;
- guarantees provided by the project company to cover performance risks.

The total cost of the plant was initially estimated to be roughly US$250 million, with the power island value being in the range of US$60-75 million; the construction period was expected to be between 24 and 30 months from the date the building licences were issued.
Once completed, the plant would have a net energy production of 246.9 MWh and, in line with a BOO structure, the project company would manage and maintain the plant for circa 20 years after completion. The energy would be sold to ENA by means of a power purchase agreement (PPA) which would determine in advance the purchase price index for the natural gas supplied by Gazprom Armenia, the water supplied by local operator Veolia and the energy acquired by ENA. In addition, the MoU set a preliminary selling tariff of 30 AMD[2]/KWh, which was about 25% below

2. AMD: Armenian Dram = US$0.002 in December 2015.

the average price paid by ENA to existing producers of energy from fossil fuel sources (40.7 AMD/KWh). This transfer price target was obviously set by the MoE and PSRC at a very challenging level in order to push RESpa to achieve maximum efficiency and cost-effective results when constructing the new power plant.

4. Moving ahead to the negotiation and signing of a sustainable and bankable framework agreement

The signing of the master agreement with Armenian government officials was scheduled by the end of the first half of 2017 and its subsequent execution depended on various success factors, especially the confirmation of:

- power island technology fully matching the minimum performance level preliminarily required by the MoU;
- equity for the project company, which was expected to be no lower than 30% of the total project cost, fully pre-funded by RESpa and any other possible shareholder partners;
- an underwriting commitment from banks and other potential lenders to provide the project company with limited recourse loans to cover the funding requirement that exceeded the equity (e.g. maximum 70% of the total project investment amount).

While the project was expected to utilise standard technology with a proven track record from a large number of reputable suppliers, two financial factors were crucial for the implementation and execution of the project. In fact, on the one hand, the management wanted to minimise the impact on the company balance sheet to preserve financial resources for other future development projects. On the other hand, the Armenian government wanted to achieve a full off-balance-sheet solution in order to save fiscal space for other investments by relying on the funding capability of the project company and, in particular, on the ability of the EPC to involve the participation of third party financiers and investors.
The new power plant project in Armenia fully matched RESpa's targets for its business plan and it was a great opportunity to work in the energy sector for the first time as EPC contractor for a significant infrastructure project. The company already had experience with a successful PPP project in Armenia, the execution of the subway car parking area, which was however, thanks to the limited amount of debt, entirely financed by a pool of local banks which were all very familiar with local market risks. Due to the significant amount of Capex required and the complex regulation of the energy sector, the power plant project was much more challenging and it required a very extensive and cross-disciplinary approach for RESpa management. The existing MoU had to be turned into a project framework agreement compliant with the credit standards accepted by international banks and other potential equity underwriters. The signing of the framework agreement was the necessary starting point to negotiate the participation of other equity investors and reach financial closing with a pool of lending institutions. Of course, the challenging target set in the PPA (power purchase agreement) by local public authorities in terms of PPT (purchase price tariff) was another very difficult factor in attracting financial and equity investors.

The establishment of a sub-holding project company in Armenia to attract institutional investors as equity partners in the project company

At the beginning of January 2017, RESpa CEO invited the CFO and his staff, the chief and senior managers of the Industrial Plants Division, and the management team of RESpa Armenia to a two-day kick-off meeting.
The company's CEO started his speech by underscoring the importance of the Yerevan power plant project for the future international development of the RESpa Group, saying it was "*a project that, once successfully executed, will become a flagship for the future of the RESpa Group in many other economies*". Then he asked for strong commitment from all the company employees present to structure and successfully complete this top priority project by providing their maximum dedication and the best possible coordination.
After the above introduction, the CEO announced that RESpa would soon establish a new subsidiary in Armenia, RESpa Power CJSC, which would act as the controlling company of the to-be established project company. Initially RESpa Power CJSC would be wholly controlled by RESpa and capitalised with a minimal amount of equity. In accordance with the preliminary business plan, going forward this new entity would increase its equity to the amount (expected to be in the range of US$50-70 million) required to maintain control of the project company. RESpa was committed to underwriting the forthcoming capital increase, possibly jointly with one or more institutional minority equity partners to be identified in the course of the forthcoming months. However, RESpa, as the project EPC, would never reduce its share below 51% (see Exhibit 7 for the governance structure).

The organisation of a cross-division project team

The CEO moved on to discuss the organisation of the working groups dedicated to project structuring and announced the formal set-up of three working teams.

Team A: was led by the head of the Industrial Plants Division and formed by a team of experienced engineers belonging to both the Industrial Plants and the Infrastructure Divisions. This team was in charge of the completion of the feasibility study and the identification of all technical specifications to select the most competitive offers for i) procurement of the power island and ii) co-management with RESpa of the operation and maintenance contract during the 20-year operation period. The CEO announced that the composition of this team would be strengthened by the forthcoming hiring of a new professional with proven experience in the design and project financing of energy power plants.

Team B was led by the country manager of RESpa Armenia and formed by a selected number of Italian and local professionals from the subsidiary. This team had to conduct in-depth legal and

administrative due diligence on the obtainment of construction permits, on the cost of the civil works required to build the site, and on the interconnection infrastructure. In addition, this team had to obtain local permission to establish the sub-holding, the project company, and to maintain a constant and proactive relationship with local decision makers in order to receive exhaustive feedback and punctual responses to queries raised by the entire project team. To guarantee maximum discipline, the responsibility for communications with the MoE and PSRC representatives was limited to the Chairman, the Group CEO, the country manager of RESpa Armenia, and the head of Institutional Relations in Armenia, a local director who had been involved in the project since the first step of the procurement process.

Team C was led by the Group CFO and formed by professionals, including a few members who had structured the previous PPP in Armenia, with solid experience in the financing of real estate projects. The team's priority was to implement a business model and a project financing structure that was, as much as possible, in accordance with the project conditions originally outlined in the MoU with the Armenian authorities. In addition to this task, the team had to identify equity partners and debt providers. Going forward, this team would play a coordination role in the development stage, providing updated working papers and an information memorandum based on the progress recorded by the other two teams.
The three teams would be led by a steering committee formed by the CEO, the RESpa Armenia country manager and the company's chief legal officer. The CFO and the head of the Industrial Plants Division were jointly appointed as project coordinators and internal operative sponsors.

Budget allocation and appointment of external advisors to support the best possible execution

To support the project team's in-house work and to cover the cost of design, of the feasibility study and of the fees for external advisors, an initial budget of €3 million was allocated to the project team. The CFO and the head of the Industrial Plants Division received full power of attorney to authorise any future expenses in order to speed up the procurement process and save valuable execution time.
An Italian advisory firm was appointed for the due diligence of the financial model developed by Team C. RESpa Armenia mandated a local law firm to advise on the legal and administrative due diligence, as per the Armenian law.

Ability to Perform: the selection of the optimal industrial partner

Following the kick-off meeting, the staff allocated to team A started to work on the design and technical specifications of the plant involving civil works and the power island.

The scope of the work was obviously addressed in order to identify the most appropriate and reliable industrial partner for RESpa.
According to the preliminary technical feasibility studies carried out by RESpa project team, it was confirmed that energy would be generated by a combined cycle power island consisting of i) a single gas turbine-driven electric generator, and ii) a steam turbine-driven electric generator fuelled with the high pressure steam produced by the working process of the gas turbine (see Exhibit 8).
The project entailed the utilisation of standard technology, called CCGT, that had a proven track record with all the major reputable suppliers on the market and there were no reasons to believe that the required guaranteed performance required by the FMA would not be met due to the selection of one specific manufacturer rather than another.
The heavy frame gas turbines market was dominated by three major groups – General Electric-Alstom, Mitsubishi-Hitachi Power Systems, and Siemens AG – which together controlled more than 70% of the total market, with the remaining share being held by other minor companies including the Italian Ansaldo Energia SpA.
RESpa in the selection process had to take several additional evaluation factors into account.
Once the technical assessment and feasibility study were completed, RESpa's team A sent all the major manufacturers of heavy frame gas turbines a request to present committed offers by the end of March 2017 to participate as a project execution partner in three specific roles:

i supplier of the technology system and supervisor during the plant construction phase;
ii partner in its operation and maintenance for a 20-year period after construction;
iii project co-sponsor as a minority shareholder in the project company.

Ability to perform cross-division project development

During the selection of the industrial partner, team B obtained authorisation to establish the new local subsidiary in Armenia, RESpa Power, and the project company, which initially was 100% controlled by RESpa, called RESpaArm Power. Based on the preliminary figures, Team C confirmed the feasibility study completed by team A, and drew up an initial financial model detailing the project funding requirements and the assumptions of project return on equity and the interest rate coverage ratio for the borrowed debt.
Despite the complexity of the project, the organisation of the three working teams, which were tightly coordinated by the steering committee and the two sponsors, proved to be successful and the initial working timetable was fully met by the end of the following month, February 2017.

To reward and motivate all the personnel involved in the project, the CEO sent an e-mail of appreciation and called another coordination meeting for mid-March. His objective was to create common knowledge of the achievements already achieved at that date, with an additional focus on results and effective time to execution.

Ability to finance the project: equity and debt funding sources

At the beginning of March 2017, as a first step towards finding a minority equity partner for the project, the CEO and the CFO decided to approach SIMEST, the development financial institution controlled by Italian export credit agency SACE, a subsidiary of the CDP Group, the national promotional institution in Italy controlled by the Italian Treasury. Together SACE and SIMEST operate under the coordination of the parent company CDP to support the export and internationalisation of Italian enterprises operating either at market conditions or below market when they are allowed to use subsidies or counter guarantees from the government. Both were originally established by law and, before becoming part of the CDP Group in 2011, they were directly owned by the Italian Treasury.
The decision of RESpa's management to approach SIMEST Spa was based on different reasons. The meeting between SIMEST and the company went quite well and one week later the investor managers of the Italian development agency confirmed that:

i) the proposed project structure matched the regulatory requirements of SIMEST operation;
ii) subject to a positive evaluation of the final structure of the project and the related business plan, they would be prepared to submit a proposal to the board of directors for the approval of a minority equity share in the newly established Armenian subsidiary RESpa Power.

However, the SIMEST investment managers clearly stated that the resolution by their board of directors would be subject to the signing of the debt facility contracts and to the availability of the debt facility for drawdowns. Therefore, SIMEST's management submitted some further issues to RESpa representatives for consideration:

i) the urgent appointment of an arranger for the debt facility, which was necessary to cover the majority of the project funding requirements;
ii) the need for RESpa to insure via SACE, or any another eligible export credit agency, the country risk related to the additional company investment in the project SPV equity.

They maintained that the availability of a debt facility term sheet was essential both for SIMEST's approval procedure and for RESpa's project team to obtain a realistic indication of the cost and security package for the debt, which would cover the total project investment amount in a range between 65% and 70%. Thus it would also allow all the analysts involved to conduct a sensitivity analysis vis-à-vis the main terms and conditions initially set out in the MoU, with specific regard for the initially envisaged tariff paid by the off-taker for energy, the 20-year duration of the PPA, and the maintenance of an acceptable DSCR (debt service coverage ratio).

However, due to RESpa's already considerable outstanding exposure in Armenia, political risk insurance was recommended as a necessary and advisable mitigation of risk for the company, in order to preserve its creditworthiness and access to alternative funding sources. In fact, as seen in the previous company background, over more than 15 year of activity via its local subsidiaries the RESpa Group had already accumulated exposure in real estate properties and other related investments amounting to approximately €50 million.
In the wake of SIMEST's advice, team C prepared a detailed information memorandum to present the project and the relative preliminary business plan to several financial institutions and multilateral agencies with the aim of selecting a debt facility "mandated lead arranger" (MLA).
To select the banks and multilateral agencies which were invited to the competitive bidding, the CFO and his team used the following criteria:

i) their track record in financing PPP in the energy sector;
ii) their track record and capacity to evaluate the country risk of the Republic of Armenia;
iii) the relatively recent involvement of the financial institution in financing infrastructure works in the energy sector in Armenia;
iv) the ability and track record of the financial institution to syndicate part of the facility with other national and multilateral development institutions and to attract insurance providers of commercial and credit risks;
v) the expected ability of the financial institution to support RESpa and its industrial partner in the negotiation of the FMA with decision-makers in Armenia;
vi) last but not least, the costs of the debt facility, such as arrangement fees, interest rates and the required guarantee and covenants package.

The road show took place at the beginning of April 2017, and by the end of the month RESpa's Team C received the letters of interest and indicative proposals for the arrangement of a long-term debt facility from three financial counterparts including the IFC, a subsidiary of the World Bank Group active in supporting the development of private entrepreneurial initiates. As mentioned earlier, the World Bank, as multilateral financing agency, had provided a loan to the government of Armenia in the recent past for the development and modernisation of the electricity distribution network.
The general indicative terms and conditions of the debt facility from the three institutions were almost completely aligned, as per the following summary:

Main Financial Terms:

- Maximum debt/equity ratio: 70/30;
- Expected minimum DSCR: 1.3 X;
- Currency: US$ or, if available, the local currency;
- Minimum project company equity: US$75 million;
- Maximum Debt facility amount: US$175 million;

- Underwriting commitment for the arranger: ranging from US$75 to 100 million
- Amount to be syndicated: US$75 to 100 million;
- Indicative Interest Rate: 6-month Libor plus a not committed margin in the 5% area;
- Debt facility tenor: 15 years
- Facility repayment: in 24 equal instalments starting after the third year

In addition, each indicative offer included the provision by the borrower, the project company, and its shareholder of a security package based on the following:
- Pledge in favour of the lenders on the project company shares and cash flows;
- Availability of RESpa and any other partner in the project company to assign the contract to a third party named by the lenders;
- Sovereign guarantee covering the default of the off-taker under the power purchase agreement;
- Insurance from an eligible export credit agency to cover the off-taker's commercial performance and the political risk in the expropriation of the project company's equity.

Each proposal was presented subject to the completion of a project due diligence process and to the disclosure of the selected industrial partner. In order to confirm their commitment to act as mandated lead arranger and underwriter of the debt facility, each financial institution was required to carry out a specific due diligence procedure for the following matters:
- country risk;
- country legislation on the energy market and government/local company obligations in the project;
- compliance due diligence on RESpa and the industrial partner appointed by RESpa following the competitive selection process;
- the now-how of the two companies with respect to their presence in Armenia and their ability as EPC contractor/O&M to build and operate the power plant;
- a technical and environmental analysis of the design of the power plant proposed by RESpa;
- soil investigation on the land and environmental impact;
- tariff mechanism and financial model;
- availability of licences and permits and related approvals;
- insurances and performing bonds.

5. The project successfully starts after a lengthy structuring path

Completion of the selection of partners

The original MoU, signed in November 2016 by RESpa and the government of Armenia, was converted, with terms and conditions in line with the original ones, into an initial framework agreement ("FMA") executed and signed in March 2017 by the government, RESpa and the legal representatives of the project company.
After a lengthy and careful assessment in August 2017, RESpa selected Siemens AG Group as the global industrial partner acting as:
i) manufacturer and provider of the power island; ii) co-manager with RESpa of the operation and maintenance contract; and iii) equity investor in the project company with a share up to 40% of the final equity via its financial subsidiary, Siemens Project Ventures.

While the offer presented by Siemens relating to the cost of the power island was almost in line, the pre-commitment of Siemens to underwrite equity for the project company, in an amount up to US$30 million, was much higher than the second best offer. RESpa evaluated this strong commitment from the German group very positively in terms of both confidence and reliability, and consequently the company had no doubts in selecting Siemens.
Upon approval by the Ministry of Energy, Siemens Project Ventures, as the minority equity partner in the project company, would take on, pro-quota and jointly with RESpa, all the undertakings stated in the FMA and it would be involved as a direct counterpart in many of the other contracts which required execution by the two co-sponsors of the project (e.g. the EPC contract, the operation and maintenance contract, etc.). Another qualitative feature of Siemens's offer was its involvement as the equity underwriter of Siemens Project Ventures GmbH's project company, a subsidiary of the affiliated Siemens Financial Services, which, through participation in many previous transactions, had acquired proven and recognised know-how in structuring and negotiating debt financing for PPP in both the energy and oil and gas sectors.
This know-how could support the RESpa project team in all the subsequent phases of the financial structuring of the project.
At the end of the month before April 2017, IFC was appointed as the mandated lead arranger to structure, co-underwrite and syndicate the project's long-term credit facility on a "non-recourse" project financing basis, as per the original Build-Own-and-Operate project financial structure stated in the FMA.
IFC confirmed in its offer that it had already received the pre-commitment to underwrite almost half of the debt facility (about US$90 million) from a pool of three prime public international institutions acting as potential co-lenders: ADB (Asian Development Bank), OFID (Opec Fund for International Development), and DEG (Deutsche Investitions und Entwicklungsgesellschaft).
Following RESpa team C's road show, the three development financing institutions, which had heard about the transaction from the market, approached IFC expressing their potential interest in participating in the debt facility syndication as co-underwriters and co-lenders. Their parti-

cipation and underwriting commitment, however, remained subject to review of the final legal documentation and the approval of their own boards of directors, which was expected to be taken after or in connection with the approval of IFC.
Due to its complexity, the project required a very extensive and cross-disciplinary set of contracts,[3] as per both English and Armenian Law. The contracts mainly referred to two main fields of governance:

- contracts related to the regulation and governance of the construction and operation of the power plant;
- contracts related to the terms, conditions, covenants and security package of the financing facility to be borrowed by the project company.

To allow for the audit by local public entities involved in the project approval, each contract drafted in English had to be translated into the Armenian language.

The structuring process meets with unexpected economic and political changes

In the middle of March 2018, after the completion of a very extensive and accurate due diligence procedure, IFC brought the transaction to its credit committee for the first approval level. IFC's committee unfortunately required certain new conditions to be incorporated into the relevant contracts, which involved on the one hand a review of the FMA signed by RESpa in 2017 and on the other a certain number of economic concessions from RESpa and its newly appointed project co-sponsor, Siemens AG.
The RESpa and Siemens teams arranged several conference calls to discuss the new requirements from the IFC. They jointly deemed it reasonable to review the power plant value, which in fact constituted a very marginal increase compared to their estimates; however, they decided to postpone their decision on increasing project company equity after the negotiation of amendments to the FMA with representatives from the Ministry of Energy and the PSRC.
Negotiations with government representatives were in progress when, at the beginning of April 2018, the political situation in Armenia suddenly deteriorated.

3. Namely: the framework agreement between the government and the project sponsors; project company and sub-holding shareholder agreements; project company and RESpa Power CJSC by-laws; engineering, procurement and construction contracts; power purchase agreements; sponsor operation and maintenance agreements; operation and maintenance contracts; gas and water supply contracts; power plant insurance policies; debt facility common terms; facility agreements; inter-creditor agreements; currency and interest rate swap agreements; syndication and underwriting agreements and commercial and political risks insurance.

As a result, in the wake of political turmoil, the prime minister and all the ministers who had originally approved the project and were very willing to build a new power plant resigned and were replaced by representatives of a brand new establishment.
In the end, for RESpa and its industrial partner, Siemens, who had been very confident that they would finalise the project's development process and who had already spent more than US$5 million in initial development costs,[4] this was a very dramatic turn of events.
After almost 18 months of hard work and full dedication, RESpa management and its team had to start brand new negotiations with completely different local decision-makers, as well as having a request from IFC to increase the amount of project company equity. It was a very tough change in the implementation programme for RESpa's management and the personnel involved.
RESpa and its industrial partner Siemens, without any firm commitment from the IFC to underwrite the debt facility, had only two possible scenarios:

A) abandon the project and lose all the development costs sustained over the previous 18 months of the structuring process; or
B) start negotiations, as soon as possible, with the new government representatives and try to obtain the required amendments in the existing FMA, reaching a firm commitment from IFC and the co-lenders before the end of the year.

RESpa's determination prevails during very tough and lengthy negotiations

At the end of July 2018, RESpa and Siemens top management called a meeting at the Siemens Group headquarters in Germany and invited the legal counsel for Armenian law, the country manager and the external relationship director of the RESpa local subsidiary. After various hours of discussion spent analysing all possible scenarios and solutions, the CEO of RESpa pointed out that, given the significance of the investments and the project under development, Armenia was a core economy for its company, almost "a second home market ". Even if the initial conditions and premises had changed substantially, he affirmed that for his company it did not make sense to abandon this priority project after such a lengthy structuring process and, in particular, at a stage very close to the end, with IFC and other lenders almost ready to give their final credit approval. He also stressed that the support of IFC combined with the funding needs of the Republic of Armenia would help to achieve a final positive result. As tangible proof of the company's commitment and determination, the CEO of RESpa said that if Siemens quit the project, RESpa would regretfully have to call back the company which had qualified with the second best offer during the previous year's competitive bidding process.
The Siemens team asked for the meeting to be suspended for 12 hours and to arrange a follow-up meeting at 9 a.m. the following morning. At the opening of the second meeting they accepted RESpa's

4. RESpa-born expenses related to the advisory activity provided by legal, engineering and financial advisory firms.

proposal to reopen the negotiation process with the new government representatives while trying to achieve a final project structure providing a higher degree of risk mitigation in terms of the increased amount of project company equity; however, Siemens's new commitment was only confirmed until the end of the year. They also agreed that, as the EPC for the project, RESpa, via its well-established local subsidiary, would take the lead in approaching the representatives of the new government. Between the end of August and September, with the constant and proactive support of the local members of Team B, the Group CEO had several technical meetings with representatives of the Ministry of Energy and PSRC.

At the end of October 2018, as discussion of the 2019 budget law approached, representatives of the Ministry of Energy called a plenary meeting that required the participation of the interested representatives of PSRC, of the Ministry of Justice[5] and its staff, of Siemens and RESpa management and of the project managers of the IFC. Among the meeting attendees there were various new members of public institutions who had replaced other civil servants involved in the past negotiations. This was not helpful for RESpa and Siemens representatives as they sought a rapid consensus on their new instances.

During the course of a lengthy discussion, IFC representatives:

i) first extensively explained the rationale behind their credit committee requests, stressing that they were "reasonable requests to mitigate the performance risks related to the construction and operation of the power plant";
ii) secondly pointed out that for the new government programme, which was focused on innovation, economic development and lowering unemployment, it would be a shame to miss the opportunity for such a relevant and attractive foreign investment in the modernisation of the energy sector in Armenia and in the entire local economy, too.
iii) thirdly stressed the solid track record of both co-sponsors, RESpa and Siemens, since the former was one of the main foreign investors in past and future developments of the local economy and the latter was a top player in the energy sector worldwide.

They concluded saying it was "an investment, made by reliable developers, having no impact on the public budget, positive environmental impact and a very high social benefits by mean of the creation of around 1000 new job opportunities during the construction period and about 250 permanent job posts during the following operation period".

Ten days after the meeting, the coordinator of the representatives of the Ministry of Energy sent notice to IFC and the two project co-sponsors confirming that a joint team made up of representatives from all the public institutions involved would start to work on a decree law to approve the amendments required by the IFC after its due diligence. However, the notice specified that the government would not be able to execute the required amendments before the Budget Law for 2019 had been passed by the Parliament in late December.

4. In accordance with local law, the Ministry of Justice was also in charge of the drafting of and budgetary audit of any new law decree having an impact on the national budget.

The structuring phase comes to an end; the project starts

In mid-November 2018, the representatives of RESpa and Siemens decided to increase their respective equity commitment in the project company pro-quota, each of them maintaining a controlling share of 60% and 40% respectively as per the original shareholders' agreement. The economic impact of the increase in the equity amount was partially mitigated by a slight reduction in the interest rate to be paid on the debt facility, which ended up being reduced to the amount of US$163 million (64% of the project's expected total final value).
From December 2018 to January 2019 the Board of Directors of IFC and all the other co-lenders approved the credit facility, subject to the approval of the Ministry of Energy of Armenia of the amended FMA and the execution of satisfactory documentation for all the interested parties.
In February 2019, with the Budget Law approved, the amended FMA was approved and executed by the Ministry of Energy of the Republic of Armenia, and IFC and the pool of co-lenders signed the financing contracts with ArmPower CJSC in the following month of March.
Finally, in mid-March 2019, the financial closing – sought constantly and at length by the project team of RESpa and Siemens – was finally and successfully achieved. Proof of the complex structure the financial closing required is the signature and execution of twenty different legal contracts. The structuring process, which, from beginning to end, engaged ten different working teams located in ten different cities in seven different countries for nearly two and half years, came to a final and successful completion, allowing the two sponsors to move on to the inauguration of the subsequent construction phase.
SIMEST, which had already received preliminary approval from its board of directors in the past, updated its due diligence in accordance with the new terms and conditions required by the IFC. At the end of April 2019, SIMEST became a minority shareholder of RESpa Power CJSC, underwriting an equity share of 22% for a total amount of approximately US$12.5 million. SIMEST and RESpa underwrote their respective equity shares by the end of April in order to secure the availability of funds to underwrite the project company capitalisation on a fully funded basis, as required by the lenders' common terms agreement.
At the end of the financial structuring process, the project company, ArmPower CJSC, was 60% owned by Renco Power and 40% by Siemens Project Ventures GmbH and had a total fully funded equity of about US$95 million.
In accordance with the amended FMA, in the EPC contract RESpa acted as the EPC contractor, with Siemens nominated as subcontractor and main manager in the operation and maintenance contract.
The board of the project company was formed by two members - the CEO appointed by RESpa and the CFO appointed by Siemens. The company by-law did not provide for the CEO casting vote and stated that all resolutions had to be jointly approved.
In the end, RESpa's management and its working teams, which started this complex development path alone in 2016, were shown to have four main great merits.

Finally, the two teams moved from board rooms to the building site

The construction site opened in late May 2019, soon after the issuing of the construction permit by local authorities. In June 2019 the project company, ArmPower, received the first tranche of the financing, in an initial amount of US$30 million, from the agent bank for the pool of lenders. To secure global coordination between the development of the infrastructure and the construction of the power Island, a joint engineering team from RESpa and Siemens was established within the organisational plan of the project company.
In accordance with the resolution passed by the project company board, RESpa was responsible for engineering, procurement and construction of all civil works, the power island balance, equipment/systems outside power island, the management of the site and also providing commissioning support to Siemens.
Siemens was responsible for design, engineering and supply of the power island (gas turbine, steam turbine, heat recovery steam generator, and other major equipment) and also advising RESpa on mechanical, electrical and erection works, as well as providing commissioning supervision for the power island and entire plant.
In accordance with the feasibility study developed by RESpa team A and used for the selection of the power island manufacturer, the project sponsors, in agreement with the technical commission of PSRC, confirmed:

- the use of a Siemens SGT5-2000E gas turbine model. The SGT5-2000E model leveraged very reliable technology with an extensive track record in many other past projects, some of which had already been financed by the IFC.
- the interconnection of the power plant with the electrical grid of the high voltage electric networks (“HVEN”);
- the construction of an inter-connection pipeline for both the gas and water supply provided by Gazprom Armenia and Veolia Djur’;
- the project company had to construct a two-km wastewater pipeline.

While Siemens started to manufacture the power island components (turbines, generators, etc.), construction of the power plant proceeded punctually and fully in line with the initial technical timeline and the GANTT feasibility study.
The completion of YCCPP-2 was expected to fully meet the EPC contract deadline of December 2021.

EXHIBIT 1: RESpa production value from 2003 to 2016 (€/mln)

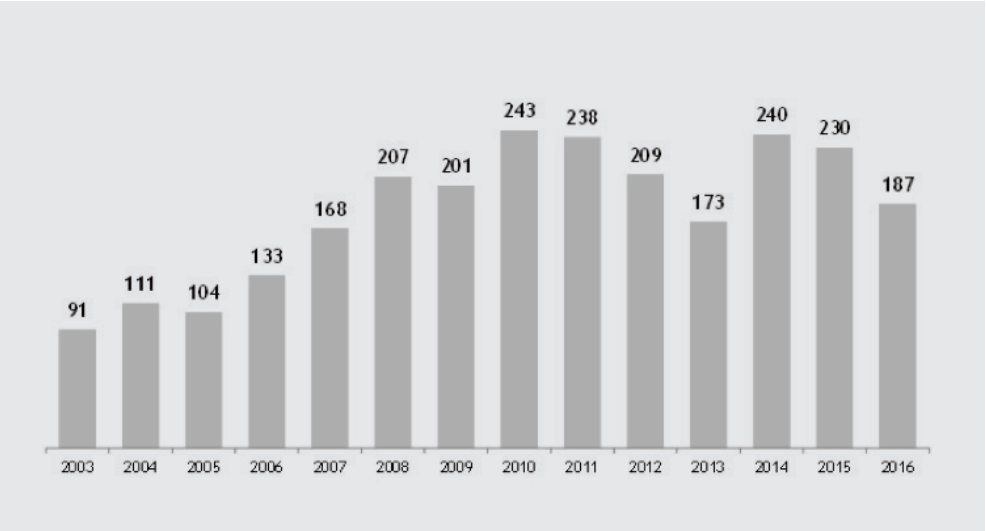

EXHIBIT 2 – RENCO selected main clients

EXHIBIT 3 – RESpa international presence as of December 2016

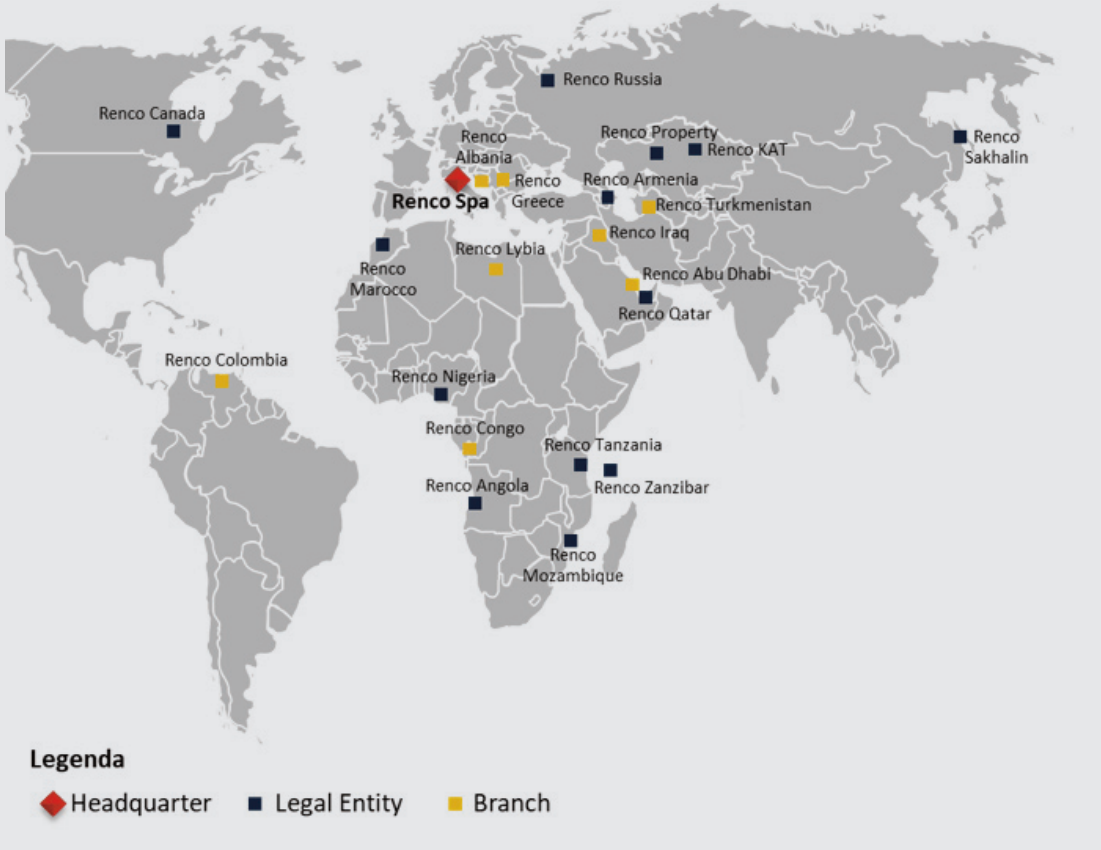

EXHIBIT 4 – RESpa EPC model plus asset management

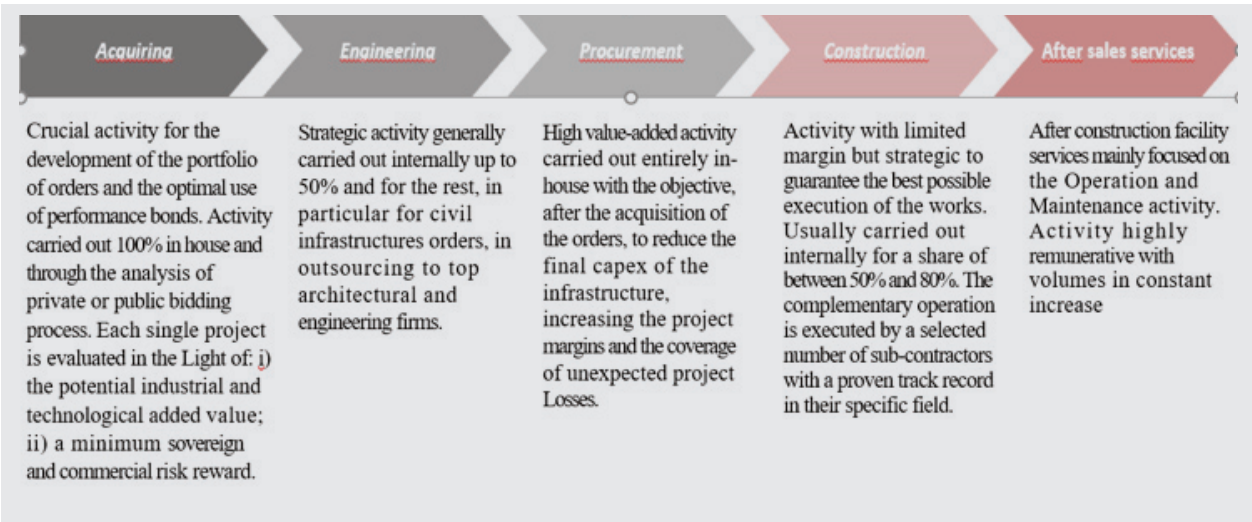

EXHIBIT 5 – Power generation in Armenia by type of sources

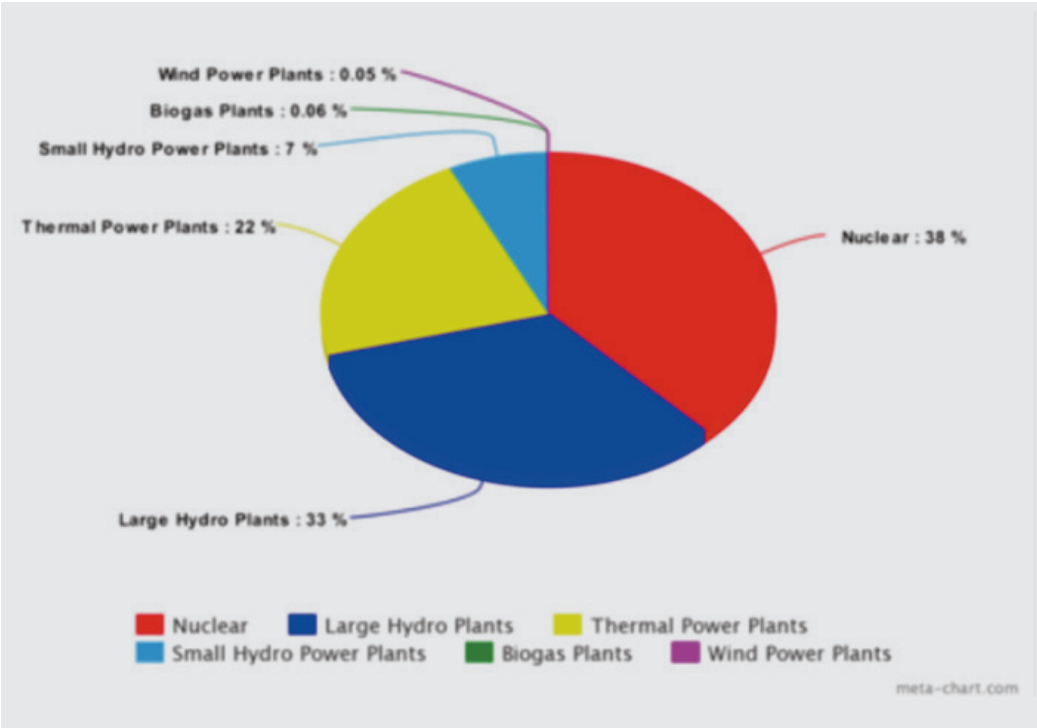

EXHIBIT 6 – Energy sector framework in Armenia

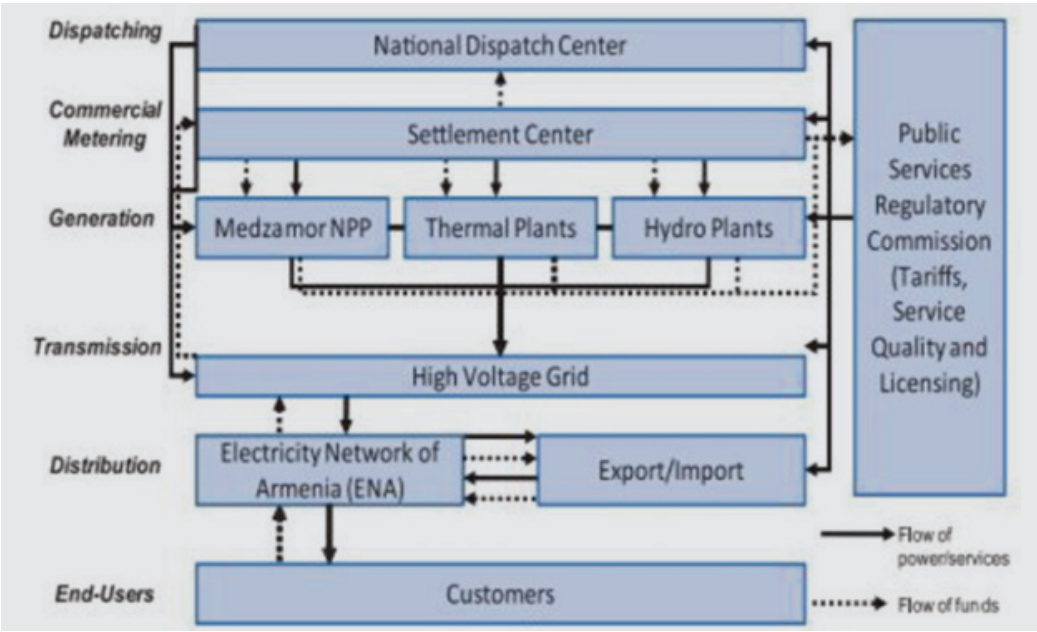

EXHIBIT 7 – The project company expected governance structure

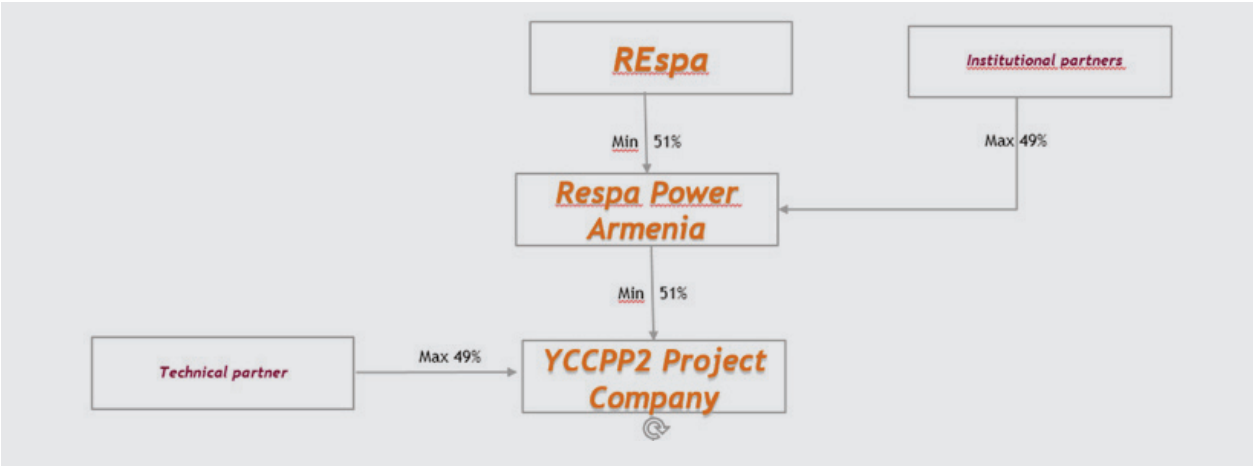

EXHIBIT 8 – The generation process of a CCPT power island