



emie

Corporate Report 2016

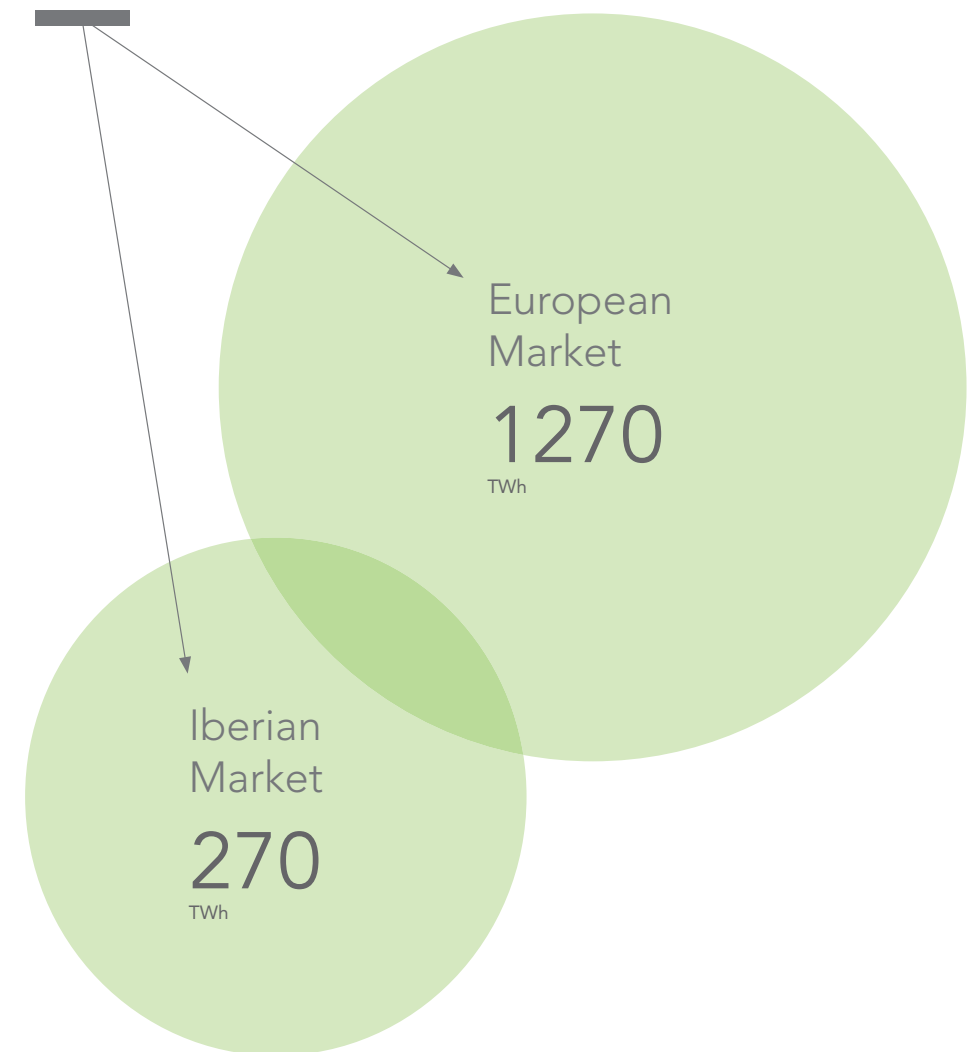
A decisive year for the creation
of the single European electricity
market

OMIE in Europe

2016, our first year as NEMO in the EU.

We continue managing the Iberian electricity market, and have become a key player in the development of the project for creating a single electricity market.

emie NEMO





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Looking to the future

Pedro J. Mejía Gómez
Chairman of OMIE

2016 has been an important year for OMIE: its appointment by the Governments of Spain and Portugal as Nominated Electricity Market Operator (NEMO) for the day-ahead and intraday markets and its role as market counterparty are two circumstances that qualitatively and quantitatively reinforce our company's image and definitively include us among the leading companies in the project for creating the European internal electricity market.

Last year, our company operated within a scenario of greater optimism for Spain and Portugal, informed by growth in their economies of 3.2% and 1.4%, respectively. For this year, and according to the forecasts made by leading international institutions, both these economies will maintain this positive performance.

The demand for electricity in Spain in 2016, adjusted for labor output and temperature, grew 0.8%, compared to the figure of 1.7% recorded in 2015. In Portugal's case, this increase stood at 0.4%, as opposed to 0.1% the previous year. This confirms for yet another year the steady decoupling between economic growth and demand, consistent with what is happening in countries with advanced economies.

Regarding prices, our markets in 2016 recorded figures that were 21% down on 2015, and 15% lower than the average for the past five years. The average price in Spain was 39.67 €/MWh, while in Portugal it was 39.44 €/MWh, with a price difference between the two countries of less than 1€/MWh for 93% of the time.

As far as the interconnection with France is concerned, the price difference with Spain was below 1 €/MWh for almost 34% of the time throughout the year, compared to 15% in 2015. This greater convergence is due largely to the entry into commercial operation in October 2015 of the new electricity connection between Spain and France.

In terms of energy, the spot market maintained its levels of liquidity, with a trading volume of close to 270 TWh, equal to almost 83% of the electricity consumed on the Iberian Peninsula. These figures are slightly higher than those for 2015, involving an economic volume of €11.027m.

2016 was also an important year for the integration of wholesale electricity markets within the EU. This was the first full year in which the capacity allocation and congestion



"2016 has been an important year for OMIE: its appointment as NEMO for the day-ahead and intraday markets and its role as market counterparty".

management (CACM) guideline was applied. According to this European regulation, Europe's respective regulators should appoint at least one NEMO in each country.

Within this new scenario, OMIE continues to liaise with all the other operators, now NEMOs, on the development of detailed European regulations for day-ahead and intraday market coupling under the supervision of European regulators, the European Commission and ACER, and within the framework of close cooperation with the system's operators, as well as with all the other stakeholders: producers, consumers, retailers, etc.

In 2017, Europe's national regulators are set to approve the NEMOs' plan for the European Market Coupling Operator (MCO Plan), on both the day-ahead and intraday time horizon, as well as the methods proposed regarding the algorithms used, the products available, maximum and minimum prices, and the mechanisms for supporting the market's operation.

With the day-ahead market already up and running, this is a decisive year for the implementation of the European platform for the continuous cross-border intraday market.

We are working to ensure it is launched toward the end of the year, and gradually becomes operational throughout the first quarter of 2018. This new platform will be compatible with our regional auctions in

MIBEL, and will bring the market closer to real time. This new market will undoubtedly lead to the greater integration of renewable energies and the more active involvement of demand in the electricity market.

"In 2017, OMIE will continue to expand and improve the service it provides to agents, contributing to the social well-being of our economies and providing our shareholders with value".

Elsewhere, our commitment to pre-empting challenges and our experience in the management of energy markets, built up over more than twenty years, have earned us the trust of the new Gas Market Operator (MIBGAS), with whom we worked at the launch stage, and now on its daily operation. Likewise, through our subsidiary OMEL Diversificación we are involved in the allocation of new generating power from renewable energy sources that is using an auction for the first time.

As a result of our growing business at both European and domestic level, and within a scenario that is ever more integrated and complex, OMIE is driving major changes in the way the company operates. The increase in company business has meant that OMIE has enlarged its workforce by around 30% in

recent years, redesigning major aspects of its organization.

July this year marks the tenth anniversary of the integration of the Spanish and Portuguese electricity markets, and therefore of the operational launch of our spot market for the Iberian Peninsula. It is undoubtedly a date for congratulating ourselves on the results obtained, and one that spurs us on to continue looking to the future.

In sum, OMIE has continued to expand and improve the service it provides to agents, contributing to the social wellbeing of our economies and providing our shareholders with value. As a result, our company has expanded its business and posted profits that have exceeded our expectations, as reported in the Financial Statements for the year, together with detailed information on our operations.

Our achievements are the result of the dedication and professionalism of the team of people that make up our company. I want to take this opportunity to salute José Carvalho Netto for his contribution in recent years and thank him for his help in creating a truly Iberian Electricity Market Operator. I would also like to mention and thank Javier González for his contribution to the launch and growth initially of the Spanish market, then the Iberian one, and now the European one. I wish them both all the best in their well-earned retirement.

I would also like to express my gratitude for the support provided by the members of the Board of Directors and by all our shareholders, and I am confident we will continue to merit the trust of our regulators and agents. All this helps us to renew our pledge to firmly address the major challenges and projects we face in the immediate future.

Pedro J. Mejía Gómez
Chairman of OMIE

Our Figures:



Economic volume our company has managed in 2016

11,027

Million euros



In terms of energy

270

TWh

MIBEL demand

83%

Corporate Governance

Board of Directors

Pedro J. Mejía Gómez
Chairman

José Carvalho Netto ⁽¹⁾
Vice-chairman

BOARD MEMBERS

Abengoa S.A.
Germán Bejarano Garcia

Banco Santander S.A.
Carlos Martín de los Santos Bernardos

EDP-Energías de Portugal S.A.
Carlos Alves Pereira Mata

Endesa Generación Portugal S.A.
Adolfo de Rueda Villén

Gas Natural SDG S.A.
Rosa Sanz García

Iberdrola Generación España S.A.U.
Gregorio Relaño Cobián

Parcaixa SGPS S.A.
Paulo Henriques

Redes Energéticas Nacionais SGPS S.A. (REN)
María José Clara

REN Serviços S.A.
Pedro Henriques Gomes Cabral

Viesgo Infraestructuras Energéticas S.L.U.
Javier Anzola Pérez

Secretary (Non-Board Member)
Rafael Ramos Gil

Undersecretary (Non-Board Member)
Pedro Raio Félix

Steering Committee

Pedro J. Mejía Gómez
President

José Carvalho Netto ⁽¹⁾
Vice-president

MEMBERS

Rafael Ramos Gil
Legal Affairs

Rafael Gómez-Elvira González
European and Public Affairs

Luis Miguel López Otero
Corporate Management

Carlos Francisco Gamito Calvo
Settlement and Billing

Yolanda Cuéllar Salinas ⁽²⁾
Market Operation

Juan Bogas Gálvez ⁽³⁾
Market Monitoring

Pedro Basagoiti Satrustegui
Information Systems

(1) Until 31 May 2016

(2) Until October 2016 José Javier González Fernández-Castañeda

(3) Since February 2017

Economic, energy and environmental scenario

Europe, like the rest of the world, is going through a time in which everything seems to be questioned.

The outlook is for higher global growth, albeit with major uncertainties

2016 was characterized by stable growth with significant differences across countries. There are several factors that give reasons for optimism:

Greater activity, full employment and fiscal stimulus in the USA.

Improvement in expectations and the stimulus in China's economy.

The impetus provided by all the other advanced economies.

Greater stability in the prices of oil and other commodities.

By contrast, other factors that could have a negative impact:

The growth perspectives for emerging economies are not optimistic.

Isolationist and protectionist policies worldwide.

Data 2016


Emerging Economies 

+4.1%

Advanced Economies 


+1.6%

IMF Forecasts

Emerging Economies 
2017


+4.5%

2018 **+4.8%**

Advanced Economies 
2017

+1.9%

2018 **+2%**

Global Economy 
2017

+3.4%

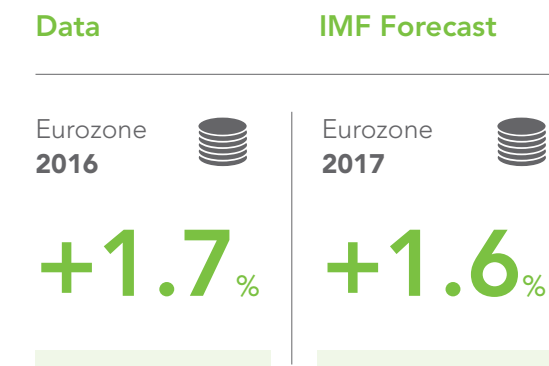
2018 **+3.6%**

Economic, energy and environmental scenario

Europe consolidates its recovery, but there are lingering doubts

European growth has lived up to expectations within an unfavorable scenario, held back by weak global trade, low growth in emerging countries, terrorist attacks, and the uncertainty surrounding the UK and USA.

Europe's recovery appears stronger than predicted. Nevertheless, low oil prices, the fall in value of the euro, and an accommodating monetary policy might not last for long.



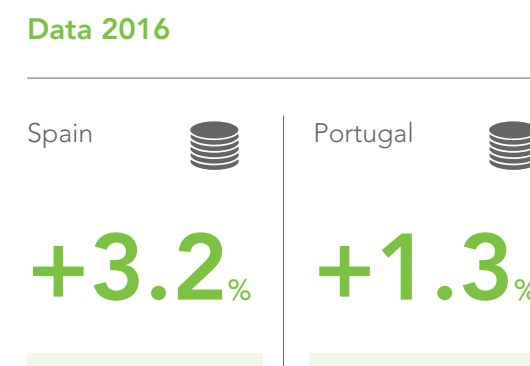
Within this context, at the end of the year the European Commission presented a communication on "Clean Energy for All Europeans"; a "Winter Package" that considers a review of European legislation on the internal energy market and on climate action within the EU's goals for 2030 and 2050.

Spain and Portugal grow, fulfilling and exceeding expectations

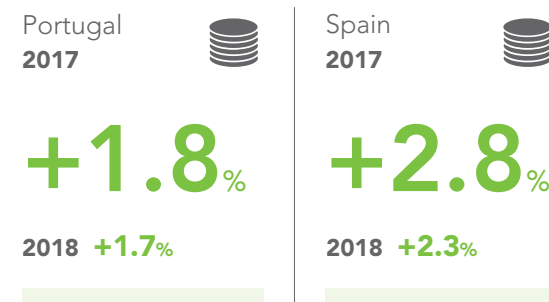
In 2016, Spain has exceeded its growth expectations thanks to domestic demand, low oil prices, tax cuts, and exports. The forecasts are for a slight slowdown due to higher inflation, the possible toughening of financial conditions, and lower growth in demand.

For its part, Portugal has also grown on the back of domestic demand and exports, as well as on the strength of the tourist sector. The forecasts point to an ongoing improvement in the economy reinforced by labor reform and an increase in the minimum wage.

As regards government spending, both economies are continuing their efforts to control the public deficit and fulfil their macroeconomic targets.



Forecast by the Bank of Portugal	Forecast by the Bank of Spain
Portugal 2017  +1.8% 2018 +1.7%	Spain 2017  +2.8% 2018 +2.3%



Economic, energy and environmental scenario


Economic recovery is being accompanied by an increase in the price of commodities

In 2016, crude oil prices remained below 50\$/bbl. The trend changed in November when OPEC agreed to reduce production by 1.2 million barrels per day, and the agreement reached by Russia and other non-OPEC producers to also apply a reduction of half a million barrels.

The first-half of 2017 is expected to see the market stabilize, with even a small deficit in production. The next OPEC meeting, scheduled for May, will decide whether to maintain the agreed reduction or lift the restrictions on production.

The International Energy Agency (IEA) foresees lower demand in 2017 compared to 2016. In fact, the Agency has been lowering its forecasts for the past few years. In 2015, it forecasted growth of 32% for the period 2014-2040; but in 2016, it adjusted it down to 30%. All the net growth would come from non-OECD countries, while the organization's members would record a 2% drop in their demand.

Data 2016

Crude oil price 

43 \$/bbl

IEA Forecast

Crude oil price 
2017

56 \$/bb

2018 80 \$/bb

The Marrakech Climate Change Conference (COP 22), with the remit to fulfil the Paris Agreement on the environment

According to the IEA, the fulfilment of the Paris Agreement, subscribed by 195 countries and coming into force in November 2016, is guaranteed.

The 22nd Session of the Conference of the Parties (COP 22), held in Marrakech, accepted the commitment for 2018 to draw up the rules for fulfilling the Paris Agreement. This will mean specifying the mechanisms for limiting global warming and keeping the rise in the Earth's average temperature below 2°C with regard to pre-industrial levels, as well as continue the efforts to limit that increase to 1.5°C.

2017 should be the year for large-scale projects and for making financing available, ensuring the targets are met for the Adaptation Fund. It should be remembered that in Paris the developed nations agreed to provide financing as of 2020, with a minimum of 100 billion per year, for mitigating and adjusting to climate change. They also agreed to raise this figure by 2025. At present, the funds earmarked for the items of mitigation and adjustment to climate change by these countries amount to 67 billion per year.

Further steps toward the European single market

Following the latest additions -Bulgaria, Croatia and Serbia- we are now 26 countries using the same model to calculate the price of electricity, with 22 doing so simultaneously.



26 countries

using the same model to calculate the price of electricity

22 countries

calculating the price of electricity simultaneously

Last year, the NEMOs have drawn up the Market Coupling Operator (MCO) Plan, in which we lay down the rules for extending joint price-setting to the whole of the EU, and in which we set out the solutions already implemented in those countries with coupled markets. This draft proposal is set to be approved by all the national regulators over the course of 2017.

Furthermore, we have continued developing the intraday project, completing some stages and welcoming new members. Our aim across all our members is to launch a new European intraday market in 2017.

The purpose of this project is to enhance the efficiency of markets throughout Europe and improve their liquidity over a time horizon of less than one day.

For the first time, energy trading will be monitored on a European-wide basis in order to detect and impede any manipulation of the market.

In 2016, ACER issued new guidelines for the application of REMIT for supervising the markets' integrity and transparency. In 2011, ACER received the mandate to ensure compliance with the regulation on wholesale energy market integrity and transparency (REMIT). All the coupled markets have begun to inform ACER of our operations on the day-ahead and intraday markets, ensuring that the European market is more closely controlled and monitored.

Core Data 2016

Energy, resources and prices

Some of last year's more pertinent data on the energy traded and the Iberian market can help us to clarify the situation.

Average daily market price €/MWh

Spanish zone

39.67

50.32 in 2015



Portuguese zone

39.44

50.43 in 2015



% Hours with a price difference of <1€/MWh

Spain / Portugal

93.4%

98.1 in 2015



Spain / France

33.6%

14.9 in 2015



Energy

Total energy traded

270 TWh

259 in 2015



Energy traded on the intraday market

32 TWh

32 in 2015



MIBEL demand

83%

79 in 2015

Resources

Number of registered agents

1,022

930 in 2015



Economic volume

11,027 M€

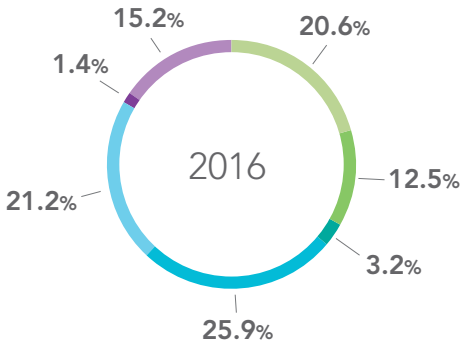
13,420 in 2015



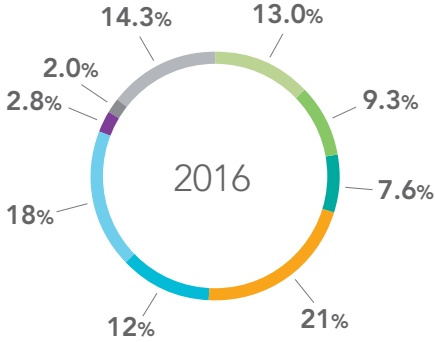
Core Data 2016

Coverage of demand by technologies

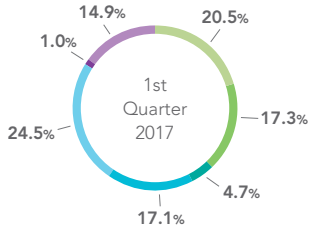
Portugal



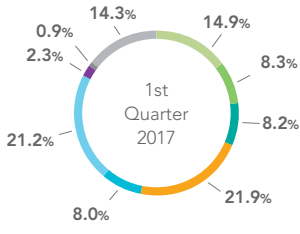
Spain



1st Quarter 2017

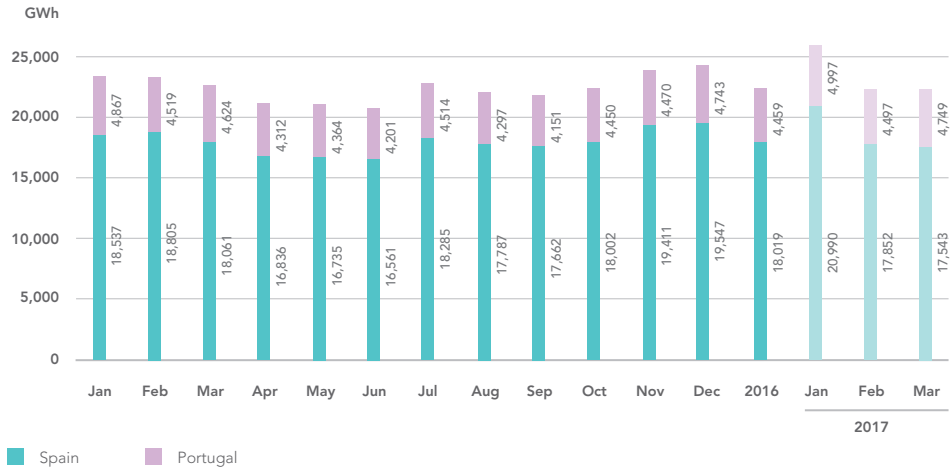


1st Quarter 2017

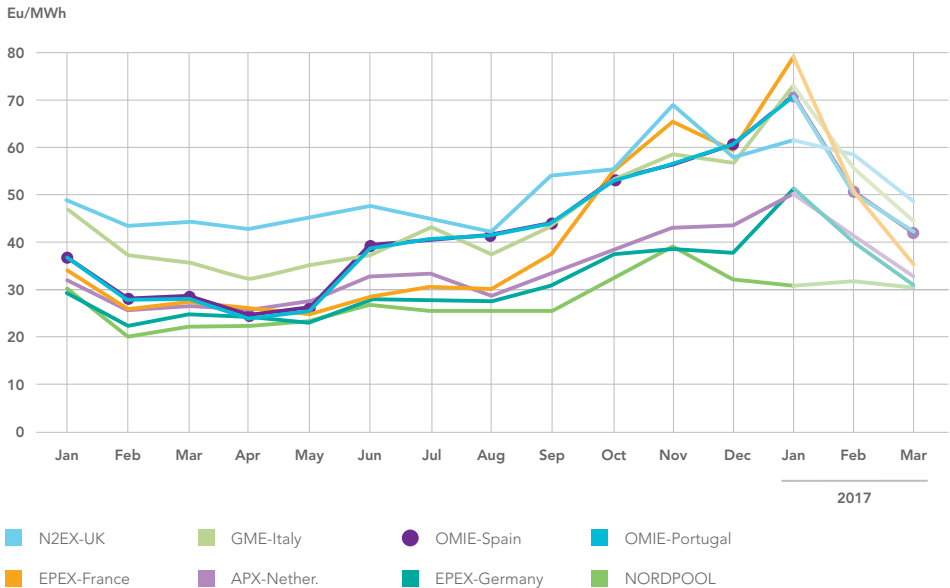


- Coal
- Combined cycle
- Import
- Nuclear
- Hydro
- Wind
- Solar photovoltaic
- Rest Sp. Regime
- Solar thermal
- Cogeneration/Wastes/Mini Hydro

Total energy (Day-ahead and intraday market)



Average monthly prices in Europe



A company in constant evolution

The electricity sector is advancing toward a common European market and OMIE is one of the leaders of this transformation.

—

Yolanda Cuéllar
Market Operation

A portrait of Yolanda Cuéllar, a woman with long, wavy brown hair, wearing a dark blazer over a patterned scarf. She is standing with her arms crossed, looking directly at the camera with a slight smile. The background is dark and out of focus, suggesting an office environment.

“Our mission is to ensure the electricity market operates smoothly, fully complying with its rules and procedures”.

A company in constant evolution

Carlos Gamito
Settlements and Billing

Who we are and what we do

At OMIE, we manage the wholesale electricity market on the Iberian Peninsula. The company is jointly owned in equal shares by Spain's OMEL and Portugal's OMIP SGPS. We render it possible for buyers and sellers to contract the amount of electricity (MWh) in a secure manner, at prices set publicly and transparently.

Our appointment as a NEMO by the governments of Spain and Portugal means we are one of Europe's electricity market operators and the Iberian Peninsula's market manager.

We operate along the same lines as many other European markets. Today, over 1000 agents can operate in real time on the day-ahead and intraday Iberian market through an electronic platform accessible via the internet, which guarantees the simultaneous participation and management of nearly two

million valid purchase and sale orders per year.

Since 1 January 2016, we have been the central counterparty for all market transactions. Accordingly, we have modified the settlement, billing and accounting systems to adapt them to these new circumstances. The economic volume traded has exceeded 11 billion euros, and we have issued more than 149,000 invoices.

Furthermore, our experience in the management of energy markets is such that we have been entrusted to implement and collaborate in the operation of the recently created Iberian Gas Market (MIBGAS).

We continue to expand our markets and products provided that this will mean providing our agents with a better service and more value for shareholders.



A company in constant evolution

The Iberian electricity market operates electronically, and provides us with the necessary data to facilitate decision-making and pre-empt problems.

—

A transparent platform for improving the sector

The software platform designed by the team at OMIE and exported to several European markets is internet-based and provides all users with wide access to the market.

It is a simple, intuitive platform with full operating capabilities. This has made it the basic tool for all market operations: from the registration of agents and the maintenance of their data through to collection and payment procedures, including the processing of orders, matching, settlement, the disclosure of information and billing.

We head the groups developing the requirements for the algorithm and backup in Europe

In the **algorithm group**, we have designed the coupling solution that calculates the prices in European markets. We consider each market's idiosyncrasies and seek solutions to optimize prices and increase the social wellbeing of the economy and consumers in Europe.

The **backup group** rolls out solutions whenever the coupling process runs into difficulties, or when the algorithm is being used, with a view to providing a timely solution.

Adapting the platform to market needs:

The trend in Business Intelligence inspires us to work with the data we gather from each operation and integrate them into the decision-making process. Thanks to our platform, not only can we guarantee the market's smooth operation, but also that the large amount of data we receive on a daily basis will help us to better understand the market. Hence the reason our platform is constantly being upgraded:

Fine-tuning the applications for reporting to ACER on all market transactions and operations, as stipulated by REMIT.

—

Development of the infrastructure that will permit communicating between the local trading system and the XBID platform.

—

Launch of a new version of the EUPHEMIA European matching algorithm for parallel processing, increasing the number of solutions analyzed in the time available.

—

Optimizing the electronic auction system for the different tenders in 2016 and, in particular, the specific payment scheme for new wind technology and biomass electricity generation facilities (REIBE auctions).

—

A company in constant evolution

How do we operate?

Day-ahead market

The main market for trading in electricity on the Iberian Peninsula, operating 24/7.

Up to **12:00**

on the preceding day, electricity purchase and sale orders are accepted.

At **12:00**

the orders are processed and added to all the other European market orders, and thanks to the EUPHEMIA algorithm we respond to all the agents' needs.

12:42

The provisional result is made public.



2014

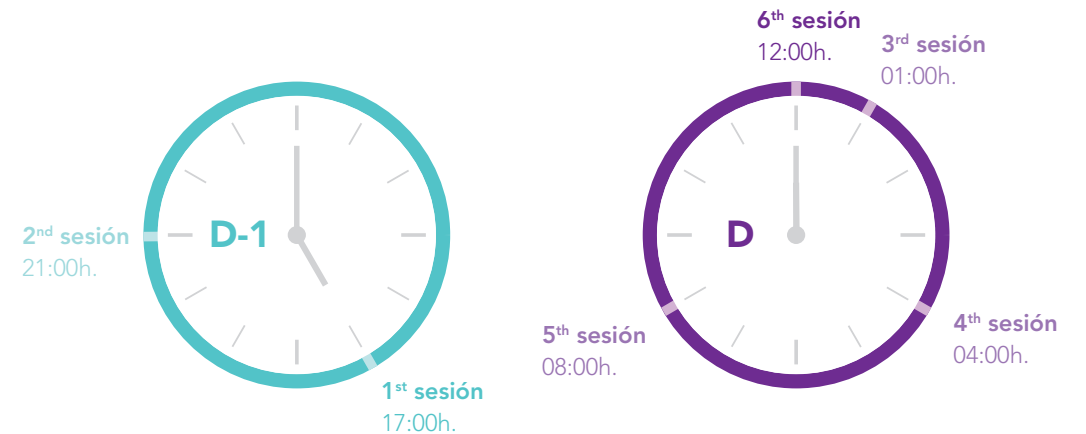
We first became involved in joint price setting in Europe and all countries matched our orders at 12 noon.

2018

We expect to launch a European intraday market thanks to the XBID project.

Intraday market

Once the day-ahead market has closed, this enables agents to adjust their production and consumption programs according to supply and demand in real time. Six intraday markets are held every three or four hours, with the first on the day before the energy is delivered.



Once matching has been completed, the next step involves the settlement of the energy bought and sold by agents in the different markets and placed at their disposal on a daily basis.

A company in constant evolution



The market we are building is transparent, efficient, reliable and accessible to all.

Open to all



We guarantee that the electricity market is a place where **all agents can buy and sell on equal terms**. They are all governed by the same rules, and they buy and sell energy at the same marginal price that has been matched on the market, regardless of their nationality, the size of the firm, or the operating volume.

Transparency



The conditions of **confidentiality and transparency** ensure anonymous transactions and uphold the absolute transparency of all business operations once the three months laid down by law have elapsed.

Reliability



Guarantees are essential for operating through OMIE. We underwrite the transaction and ensure there are no risks for either the seller or the buyer.

Independence

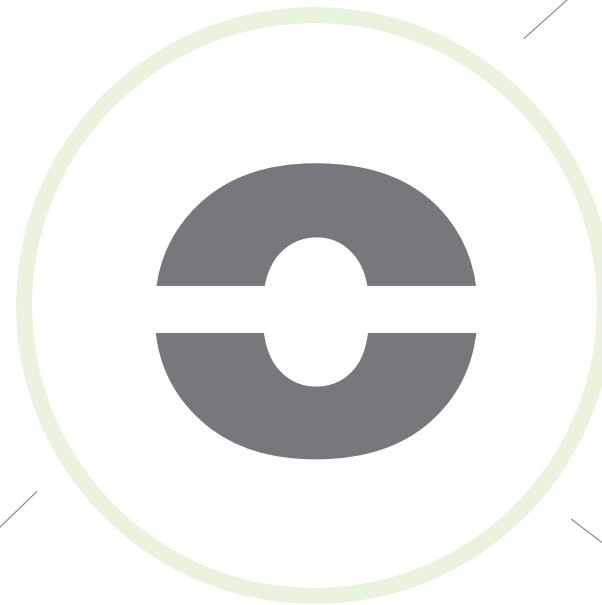


The independence of OMIE's management is guaranteed by the regulated nature of our business and by the nature of our shareholders. Regulation places restrictions on holdings in the company's capital, whereby no individual shareholder may wield control over it.

Integrated in society



We actively collaborate with national and international regulators, as well as with all other stakeholders (producers, consumers, academia, etc.)




A growing team

Our team has grown by almost 30% over the past three years, with highly skilled professionals, stable contracts and quality employment.


Our team is made up of highly qualified staff. At OMIE, we are committed to the personal and professional development of each one of them. We want people to grow in our company, and so we arrange schemes for continuous improvement and provide contracts that guarantee stable and quality employment.





74 people 

34% women 

41 average age 

66% men 

30% more staff over the past three years 

88% holders of university degrees of which **94% are five-year degrees** 

Energy concerns us all

We are only too aware of the importance energy has for society. We also strive to inform, to share our know-how on energy and on the market, and of course to improve the wider world by helping to ensure that energy reaches all those places where people need it.

—

Ignacio Pérez-Arriaga
Professor & Director of the BP Chair
on Energy & Sustainability, UPC.
Permanent visiting professor, MIT.

A portrait of Ignacio Pérez-Arriaga, a middle-aged man with grey hair and glasses, wearing a blue and white striped button-down shirt. He is standing with his arms crossed, looking directly at the camera with a slight smile. The background is a bright, out-of-focus indoor setting.

“OMIE is an example of intellectual application, innovation and cooperation with the community to further and disseminate an understanding of the sector”.

Energy concerns us all

Our dialogue with stakeholders

We hold briefing sessions in cooperation with sundry public and private associations.

We arrange meetings with the Market Agents' Committee (CAM) in which we analyze the market's operation, the settlement of transactions, any issues that might arise in the day-ahead and intraday markets, and provide information on OMIE's range of services.

We cooperate in training activities both at home and abroad, with players in the energy sector and with educational institutions in general.

We continue organizing the OMIE's International Workshop, which in May 2017 will be held for the tenth time. It provides an

Fostering fluent communication and dialogue with our agents and with society at large is an essential part of our work.

opportunity to analyze and discuss the latest trends in energy markets with academics of recognized international prestige, regulators, and senior executives from energy companies from all over the world. Our most recent events have been "The utility of the future: preparing for a changing energy sector" in May, and "Power storage in markets: Future or reality" in November.

Furthermore, we maintain a fluid conversation with the media and myriad stakeholders. We provide information through our website, whereby all those with a stake in the market may access the same information under exactly the same conditions.

More information at omie.es



"The CAM, with OMIE's help, has become the ideal forum for discussing and understanding the agents' different viewpoints, while fostering trust in the market through transparency and disclosure.

With the same enthusiasm of the last 20 years, we will jointly address the new challenges posed by a more integrated European market".

Antonio Canoyra
Chairman of CAM

We share our knowledge:

Courses

More than 90 professionals from the energy sector attended courses on the electricity market in 2016.

Master's Degrees

Our staff taught classes on Master's degree courses at several universities, thereby providing a practical and realistic understanding of the way electricity markets are operated and regulated.

Briefing Sessions

We take part in these instructional events on economic-financial, legal and technological matters involving the energy markets, in partnership with ENERCLUB and business schools.

Energy concerns us all

Our responsibility toward energy

We are patrons of the Spanish NGO Energía sin Fronteras (ESF), whose 200 volunteers work to provide energy and clean water for isolated rural communities that still do not have them.

In 2016, we saw the completion of three major electricity installations:

– In **La Matanza (Peru)**, photovoltaic pumping from the Monte Azul well.

– On **Idjwi Island (RD Congo)**, the supply of water to the Kabuye district.

– In **Nyumbani (Kenya)**, the final stage of lighting for homes in this “eco-village”.

By the year’s end, a further 20 schemes were under way, with plans for a new ESF strategy in Spain to combat Energy Poverty.



Glossary

ACER

The Agency for the Cooperation of Energy Regulators is an EU body set up by virtue of the Third Energy Package, with its remit being to further the introduction of an internal market in electricity and natural gas.

Counterparty

The opposite party in a trade deal. When a purchase is made in the market, as counterparty we are the seller. If there is a sale in the market, as counterparty we are the buyer.

Euphemia

Acronym for EU + Pan-European Hybrid Electricity Market. It is used to calculate electricity prices in Europe and net positions, maximizing social wellbeing, bearing in mind the network's limitations and the flow between different pricing areas.

MIBEL

The Iberian Electricity Market. The outcome of a cooperation project involving the governments of Spain and Portugal designed to promote the integration of the electricity systems in these two countries.

MWh - TWh

Units of measurements for electricity, equal to one megawatt-hour (MWh) or one terawatt-hour (TWh).

NEMO

Nominated Electricity Market Operator is the figure established by Commission Regulation (EU) 2015/1222, being empowered to perform the duties of an electricity market operator in a given country.

Market Operator

The company responsible for managing the electricity market.

PCR

Price Coupling of Regions (PCR) is a project undertaken by Europe's electricity markets for developing a market coupling system that calculates the price of electricity throughout Europe, and permits allocating cross-border capacity in short-term markets.

SIOM

The Market Operator Information System (SIOM in Spanish) is the access tool used by market agents to take part in the electricity market and gather information on it.

XBID

Cross-border Intraday Initiative is a draft project pursued by Europe's electricity markets in conjunction with system operators for creating a European cross-border intraday market.

REMIT

Is a legal framework established by the UE for supervising wholesale energy markets. Its purpose is to detect and impede any manipulation of the market.

