Naturgy Foundation Annual Report **2020**



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Contents

Naturgy Foundation Annual Report **2020**

Letter from the Chairman

041

01 |

Board of Trustees

1801

04

Energy and environment

|34|

02

Financial information

101

05 |

Education and dissemination

| 46 |

03 |

Energy and social engagement

| 20 |

06

Agreements

| 58 |

Letter from the Chairman

This year's report on the activities of the Naturgy Foundation comes at an especially complex time. The COVID-19 pandemic has marked the lives of millions of people not only from the point of view of health, but also in economic and social terms.

Public authorities, companies and social organisations have devoted all their efforts to meeting the needs generated by a crisis which, apart from the health implications, has had the greatest impact on families with limited resources and others who have been made vulnerable by the situation.

Against this background, the Naturgy Foundation's social action work is more important than ever. Its mission and activities contribute to ensuring the Naturgy group is managed in accordance with environmental, social and governance (ESG) criteria.

Throughout 2020, we have made every resource available to society to help improve the quality of life of the people who need it most, and we have adapted to the new circumstances caused by the COVID-19 epidemic to ensure that we worked harder than ever to keep our social, educational and awareness-raising programmes going.

The focus of our social programmes was once more on retrofitting vulnerable homes to make them more energy efficient, work we have carried out for some years under the Naturgy Vulnerability Plan. 1,750 families have already benefited from the Energy Rehabilitation Solidarity Fund.

In 2020, we have adapted to the new circumstances caused by the COVID-19 epidemic to ensure that we worked harder than ever to keep our social, educational and awareness-raising programmes going.

Our School of Energy has adapted its content to online formats, to continue helping the most vulnerable families take control of their own energy managementand providing training for social services professionals and social organisations throughout Spain. The main objective of this initiative is to provide tools that allow families to manage their energy consumption better, and it has already benefited more than 23,000 people since its launch in 2017.

The volunteer programme plays a very special role in this exercise. In addition to their ongoing work of providing energy advice to vulnerable families, from which more than 4,500 families benefited, and their environmental activities, in the last year

our volunteers also took part in various initiatives related to the health emergency, manufacturing more than 3,300 items of 3D-printed medical supplies and other materials that were donated to around thirty organisations.

Our social programme culminated in December with the award of the First Naturgy Foundation Prize for the best social energy initiative to the Ecodes Foundation and the Isadora Duncan Foundation. This award, the second edition of which is already under way, reflects the three cornerstones of our Foundation's work: energy, around which all our awareness-raising, educational and social programmes are based; the environment, as something we need to preserve, promoting sustainability, energy efficiency and responsible consumption; and people, especially the most vulnerable, ensuring that they have access to energy as a basic service.

In December we awarded the First Naturgy Foundation Prize for the best social energy initiative, which reflects the three cornerstones of our Foundation's work: energy, environment and people.

88 nominations were submitted to this first call for the award, linked to projects that benefit more than three million people in Spain. They are a clear demonstration of an incontestable truth: that we can work together to develop innovative and realistic ideas that enable all of us, using the resources and tools we have, to find better solutions to the problems of energy vulnerability.

Nor have we stopped working on our study and analysis of energy poverty, so we can arm ourselves with greater knowledge in order to propose initiatives that will alleviate this problem. We fully understand that in order to make decisions and act effectively, information is needed on the causes of energy poverty. We must have a clear understanding of the diverse causes of this problem in order to find crosscutting solutions to address and reduce it.

I would like to highlight our active participation in two European projects: SocialWatt and Energy Poverty Intelligence Unit Getafe, and the publication of the study 'Energy Poverty in Europe: a comparative analysis', presented at an international digital event. This document, prepared by the Chair of Energy Sustainability of the IEB-University of Barcelona, advocates structural measures that include energy efficiency improvements, the use of renewable energies and changing the energy behaviour of consumers, in order to develop better policies to combat energy poverty.

The year 2020 was also very fruitful for research and dissemination. Along with the IESE Business School, we organised a series of high-level conferences, Energy Prospectives, with four outstanding speakers in the two sessions held: Miguel Arias Cañete, Luis Atienza, Christophe Brognaux and Eva Valle. With them, we discussed the current disruptions in the energy markets, the energy transition in Europe and the regulation of the Spanish electricity sector in view of the need to decarbonise over the coming years.

In this, the year of the pandemic, educational programmes to introduce young people to the world of energy, sustainability and efficiency, became even more important.

We also published 12 new studies on key issues in the current energy environment, including the integration of renewable energies, hydrogen, renewable gases, sector coupling, the use of natural gas in industry and the scientific bases of climate change. The latter study was produced in partnership with the Harvard University Center for the Environment. Most of these publications were presented at online events attended by around 2,500 people.

In this, the year of the pandemic, educational programmes to introduce young people to the world of energy, sustainability and efficiency, became even more important. In order to provide both families and the educational community with tools during lockdown, we adapted and developed new educational resources to provide free access to them through our website. The platform Efigy Education digital received more than 164,000 visits in the year.

Our commitment to vocational education and training to help people become more employable is firmly established, with more than 5,100 students trained. In order to meet the challenges of the energy transition, future professionals need to be constantly kept up-to-date with new technology so they can respond to the needs of companies in the sector. Training sessions were provided during 2020 on vehicular natural gas, renewable gas, energy-efficient construction and retrofitting, and energy vulnerability.

As a Foundation we are not, nor should we be, alone on the journey that unites the three cornerstones that I defined earlier as forming the basis of our mission. All this work would not have been possible without the continued cooperation and support of the public authorities, third sector organisations and academic institutions, which help broaden our social initiatives and contribute their knowledge to our studies and educational programmes.

Since its creation nearly 30 years ago, the Naturgy Foundation has always focused on social and educational innovation. But in times like the present, when people's needs must be met without delay and with effective proposals, our work is more important than ever.

The need to advance towards a socially just energy transition has coincided with a pandemic that has had devastating consequences, demanding the best from us as a society. There is a long way still to go, but the Naturgy Foundation and all our people are to be found on this path. The Foundation's work is possible thanks to the invaluable and indispensable support of the Naturgy Group and its ongoing commitment to society.

Rafael Villaseca Marco

Chairman

Madrid, March 2021





Rafael Villaseca Marco



Jordi Garcia Tabernero Vice Chairman



Jorge Barredo López Trustee



Jon Ganuza Fernandez de Arroyabe



Pedro Larrea Paguaga Trustee



Carlos Vecino Montalvo Trustee



Manuel García Cobaleda Secretary



María Eugenia Coronado General manager

Naturgy Foundation Annual Report **2020**

01Board of Trustees



Audit Report
on the
Abbreviated
Annual Accounts

Naturgy Foundation Annual Report **2020**

02 | Financial information Informe de Auditoría de Cuentas Anuales Abreviadas emitido por un Auditor Independiente

FUNDACIÓN NATURGY Cuentas Anuales Abreviadas correspondientes al ejercicio anual terminado el 31 de diciembre de 2020



Ernst & Young, S.L. C/ Raimundo Fernández Villaverde, 65 28003 Madrid Tel.: 902 365 456 Fax.: 915 727 300 ey.com

INFORME DE AUDITORÍA DE CUENTAS ANUALES ABREVIADAS EMITIDO POR UN AUDITOR INDEPENDIENTE

A los Patronos de FUNDACIÓN NATURGY:

Opinión

Hemos auditado las cuentas anuales abreviadas de Fundación Naturgy (la Fundación), que comprenden el balance abreviado a 31 de diciembre de 2020, la cuenta de resultados abreviada y la memoria abreviada correspondientes al ejercicio anual terminado en dicha fecha.

En nuestra opinión, las cuentas anuales abreviadas adjuntas expresan, en todos los aspectos significativos, la imagen fiel del patrimonio y de la situación financiera de la Fundación a 31 de diciembre de 2020, así como de sus resultados correspondientes al ejercicio anual terminado en dicha fecha, de conformidad con el marco normativo de información financiera que resulta de aplicación (que se identifica en la nota 2 de la memoria abreviada) y, en particular, con los principios y criterios contables contenidos en el mismo.

Fundamento de la opinión

Hemos llevado a cabo nuestra auditoría de conformidad con la normativa reguladora de la actividad de auditoría de cuentas vigente en España. Nuestras responsabilidades de acuerdo con dichas normas se describen más adelante en la sección *Responsabilidades del auditor en relación con la auditoría de las cuentas anuales abreviadas* de nuestro informe.

Somos independientes de la Fundación de conformidad con los requerimientos de ética, incluidos los de independencia, que son aplicables a nuestra auditoría de las cuentas anuales en España según lo exigido por la normativa reguladora de la actividad de auditoría de cuentas. En este sentido, no hemos prestado servicios distintos a los de la auditoría de cuentas ni han concurrido situaciones o circunstancias que, de acuerdo con lo establecido en la citada normativa reguladora, hayan afectado a la necesaria independencia de modo que se haya visto comprometida.

Consideramos que la evidencia de auditoría que hemos obtenido proporciona una base suficiente y adecuada para nuestra opinión.



Aspectos más relevantes de la auditoría

Los aspectos más relevantes de la auditoría son aquellos que, según nuestro juicio profesional, han sido considerados como los riesgos de incorrección material más significativos en nuestra auditoría de las cuentas anuales abreviadas del periodo actual. Estos riesgos han sido tratados en el contexto de nuestra auditoría de las cuentas anuales abreviadas en su conjunto, y en la formación de nuestra opinión sobre éstas, y no expresamos una opinión por separado sobre esos riesgos.

Aplicación de las aportaciones recibidas al Plan de Actuación aprobado por el Patronato

Descripción Tal y como se detalla en la nota 1 de la memoria abreviada adjunta, la Fundación tiene entre sus objetivos principales la información y sensibilización de la sociedad en el respeto y conservación del medio ambiente, así como el hacer compatible el progreso económico con el uso racional de los recursos energéticos.

> En base a lo anterior, en la nota 12 de la memoria abreviada adjunta, a 31 de diciembre de 2020 la Fundación tiene registradas bajo el epígrafe de "Subvenciones, donaciones y legados imputados al excedente del ejercicio" de la cuenta de resultados abreviada adjunta por importe de 8.130.309 euros, las donaciones anuales por parte de la entidad fundadora, Naturgy Energy Group, S.A. y otras entidades del Grupo Naturgy Energy Group, las cuales son destinadas a los proyectos específicos detallados en el Plan de Actuación aprobado por el Patronato. Asimismo, tal y como establece la Ley 50/2002 de Fundaciones, deberá ser destinado a la realización de los fines fundacionales al menos el 70 por ciento de las rentas o cualesquiera otros ingresos netos que, previa deducción de impuestos obtenga la fundación.

Dada la importancia de la cifra de ingresos del ejercicio, así como la aplicación de dichos recursos a los fines de la Fundación de acuerdo a la legislación aplicable, consideramos que esta área constituye un aspecto relevante de la auditoría.

Nuestra respuesta

En relación con esta área, nuestros procedimientos de auditoría han incluido, entre otros, los siguientes:

- El entendimiento de las políticas contables de la Fundación descritas en la nota 4 de la memoria abreviada adjunta, en relación con los ingresos y gastos de la
- Comprobación a través de una muestra de extractos bancarios de la Fundación que los donativos recibidos en el ejercicio 2020 han sido efectivamente
- Comprobación, para una muestra seleccionada, de la aplicación de los recursos mediante facturas, revisión de acuerdos de colaboración u otra documentación soporte, verificando la correcta clasificación al proyecto correspondiente y que dicho proyecto es consistente con la actividad fundacional y está incluido en el Plan de Actuación aprobado por el Patronato.
- Revisión de la información desglosada en la memoria abreviada del ejercicio de conformidad con el marco normativo de información financiera aplicable.



3

Otra información: Propuesta de aplicación del resultado

La otra información comprende exclusivamente la propuesta de aplicación del resultado del ejercicio 2020, cuya formulación es responsabilidad del Presidente de la Fundación y no forma parte integrante de las cuentas anuales abreviadas.

Nuestra opinión de auditoría sobre las cuentas anuales abreviadas no cubre la propuesta de aplicación del resultado. Nuestra responsabilidad sobre la misma, de conformidad con lo exigido por la normativa reguladora de la actividad de auditoría de cuentas, consiste en evaluar e informar sobre su concordancia con las cuentas anuales, a partir del conocimiento de la entidad obtenido en la realización de la auditoría de las citadas cuentas. Si, basándonos en el trabajo que hemos realizado, concluimos que existen incorrecciones materiales, estamos obligados a informar de ello.

Sobre la base del trabajo realizado, según lo descrito en el párrafo anterior, no tenemos nada que informar respecto a la propuesta de aplicación del resultado.

Responsabilidad del Presidente en relación con las cuentas anuales abreviadas

El Presidente es responsable de formular las cuentas anuales abreviadas adjuntas, de forma que expresen la imagen fiel del patrimonio, de la situación financiera y de los resultados de la Fundación, de conformidad con el marco normativo de información financiera aplicable a la entidad en España, que se identifica en la nota 2 de la memoria abreviada adjunta, y del control interno que consideren necesario para permitir la preparación de cuentas anuales abreviadas libres de incorrección material, debida a fraude o error.

En la preparación de las cuentas anuales abreviadas, el Presidente es responsable de la valoración de la capacidad de la Fundación para continuar como entidad en funcionamiento, revelando, según corresponda, las cuestiones relacionadas con entidad en funcionamiento y utilizando el principio contable de entidad en funcionamiento excepto si el Presidente tienen intención de liquidar la Fundación o de cesar sus operaciones, o bien no exista otra alternativa realista.

Responsabilidades del auditor en relación con la auditoría de las cuentas anuales abreviadas

Nuestros objetivos son obtener una seguridad razonable de que las cuentas anuales abreviadas en su conjunto están libres de incorrección material, debida a fraude o error, y emitir un informe de auditoría que contiene nuestra opinión.

Seguridad razonable es un alto grado de seguridad pero no garantiza que una auditoría realizada de conformidad con la normativa reguladora de la actividad de auditoría de cuentas vigente en España siempre detecte una incorrección material cuando existe. Las incorrecciones pueden deberse a fraude o error y se consideran materiales si, individualmente o de forma agregada, puede preverse razonablemente que influyan en las decisiones económicas que los usuarios toman basándose en las cuentas anuales abreviadas.



4

Como parte de una auditoría de conformidad con la normativa reguladora de la actividad de auditoría de cuentas vigente en España, aplicamos nuestro juicio profesional y mantenemos una actitud de escepticismo profesional durante toda la auditoría. También:

- ldentificamos y valoramos los riesgos de incorrección material en las cuentas anuales abreviadas, debida a fraude o error, diseñamos y aplicamos procedimientos de auditoría para responder a dichos riesgos y obtenemos evidencia de auditoría suficiente y adecuada para proporcionar una base para nuestra opinión. El riesgo de no detectar una incorrección material debida a fraude es más elevado que en el caso de una incorrección material debida a error, ya que el fraude puede implicar colusión, falsificación, omisiones deliberadas, manifestaciones intencionadamente erróneas, o la elusión del control interno.
- Obtenemos conocimiento del control interno relevante para la auditoría con el fin de diseñar procedimientos de auditoría que sean adecuados en función de las circunstancias, y no con la finalidad de expresar una opinión sobre la eficacia del control interno de la entidad.
- Evaluamos si las políticas contables aplicadas son adecuadas y la razonabilidad de las estimaciones contables y la correspondiente información revelada por el Presidente.
- Concluimos sobre si es adecuada la utilización, por el Presidente, del principio contable de entidad en funcionamiento y, basándonos en la evidencia de auditoría obtenida, concluimos sobre si existe o no una incertidumbre material relacionada con hechos o con condiciones que pueden generar dudas significativas sobre la capacidad de la Fundación para continuar como entidad en funcionamiento. Si concluimos que existe una incertidumbre material, se requiere que llamemos la atención en nuestro informe de auditoría sobre la correspondiente información revelada en las cuentas anuales abreviadas o, si dichas revelaciones no son adecuadas, que expresemos una opinión modificada. Nuestras conclusiones se basan en la evidencia de auditoría obtenida hasta la fecha de nuestro informe de auditoría. Sin embargo, los hechos o condiciones futuros pueden ser la causa de que la Fundación deje de ser una entidad en funcionamiento.
- Evaluamos la presentación global, la estructura y el contenido de las cuentas anuales abreviadas, incluida la información revelada, y si las cuentas anuales abreviadas representan las transacciones y hechos subyacentes de un modo que logran expresar la imagen fiel.

Nos comunicamos con el Presidente de la entidad en relación con, entre otras cuestiones, el alcance y el momento de realización de la auditoría planificados y los hallazgos significativos de la auditoría, así como cualquier deficiencia significativa del control interno que identificamos en el transcurso de la auditoría.



5

Entre los riesgos significativos que han sido objeto de comunicación al Presidente de la entidad, determinamos los que han sido de la mayor significatividad en la auditoría de las cuentas anuales abreviadas del periodo actual y que son, en consecuencia, los riesgos considerados más significativos.

Describimos esos riesgos en nuestro informe de auditoría salvo que las disposiciones legales o reglamentarias prohíban revelar públicamente la cuestión.

Este informe se corresponde con el sello distintivo nº 01/21/02544 emitido por el Instituto de Censores Jurados de Cuentas de España ERNST & YOUNG, S.L. (Inscrita en el Registro Oficial de Auditores de Cuentas con el Nº S0530)

José Agustín Rico Horcajo (Inscrito en el Registro Oficial de Auditores de Cuentas con el Nº 31920)

24 de febrero de 2021

Abbreviated financial results

at 31 December 2020 and 2019 (€)

ASSETS	2020	2019
NON-CURRENT ASSETS	442,255	511,263
Intangible assets	15,775	41,928
Property, plant and equipment	422,160	465,015
Non-current financial investments	4,320	4,320
CURRENT ASSETS	3,637,776	4,981,162
Users and other receivables related to the activities of the entity		2,000
Trade and other receivables	34	52
Current financial investments	3,194	8,026
Cash and other equivalent liquid assets	3,634,548	4,971,084
TOTAL ASSETS	4,080,031	5,492,425

NET EQUITY AND LIABILITIES	2020	2019
NET EQUITY	2,694,288	3,201,793
Own funds	2,694,288	3,201,793
Endowment	1,502,530	1,502,530
Reserves	1,699,263	2,256,655
Prior years' surplus	(6,182)	(623,205)
Surplus for the year	(501,323)	65,813
Subsidies, donations and legacies received		
CURRENT LIABILITIES	1,385,743	2,290,632
Current payables to group entities and associates	146	223
Trade and other payables	1,385,597	2,290,409
TOTAL NET EQUITY AND LIABILITIES	4,080,031	5,492,425

Abbreviated Income Statement

for the financial years ended 31 December 2020 and 2019 (€)

SURPLUS FOR THE YEAR	2020	2019
Revenues from the ordinary activities of the entity	8,133,024	6,572,094
Other revenues	150,252	
Subsidies granted and other expenses	(3,936,118)	(1,502,952)
Procurements		(223,520)
Other operating expenses	(4,784,176)	(4,683,057)
Depreciation and amortisation	(69,008)	(84,954)
SURPLUS ON OWN ACTIVITIES	(506,026)	77,609
Financial revenue	958	8,977
Financial costs	(10,189)	(764)
Exchange differences	13,934	(20,009)
SURPLUS ON FINANCIAL OPERATIONS	4,703	(11,796)
SURPLUS BEFORE TAX	(501,323)	65,813
CHANGES IN NET EQUITY RECOGNISED IN SURPLUS FOR THE YEAR	(501,323)	65,813

RECLASSIFICATIONS TO SURPLUS FOR THE YEAR		
Donations and legacies received		(564,103)
CHANGES IN NET EQUITY FOR REVENUE AND EXPENSES DIRECTLY ATTRIBUTED TO NET EQUITY		(564,103)
Other Changes	(6,182)	
TOTAL RESULT, CHANGE IN NET EQUITY IN THE FINANCIAL YEAR	(507,505)	(498,290)



Social action programmes form part of Naturgy's commitment to society in the countries where it operates. These initiatives are always linked to energy and are aimed at improving the living conditions of the most vulnerable members of society.

Naturgy Foundation Annual Report **2020**

03 |

Energy and social engagement



In 2020 it has become clearer than ever that **energy is essential for the development of people, companies and societies**. Even when activity levels in some sectors were very low due to the COVID-19 pandemic, **energy has continued to be an essential resource to guarantee a decent quality of life**. During this year, due to the health emergency, the Foundation's social activities have been carried out on line, while other specific actions have been programmed and implemented in response to the pandemic, focusing particularly on vulnerable groups.

The initiatives implemented during this financial year are:

- Award of the First Naturgy Foundation Prize for the best social energy initiative and call for applications for the second edition.
- Retrofitting of homes with funding from the Energy Rehabilitation Solidarity Fund.
- Energy School.
- Publication of the study "Energy poverty in Europe.
 A comparative analysis".
- Energy, social and environmental volunteering.
- Membership of the advisory council of the Chair of Energy and Poverty at the Universidad Pontificia Comillas.
- International social action.
- Participation in European projects on energy poverty.
- COVID donation to the "Cruz Roja Responde" appeal.

These programmes have been implemented in the countries where Naturgy has a presence with the aim of promoting the development of the communities in which it operates.

The programmes are tailored to the needs of the beneficiaries and the organisations that work with them, respecting the unique characteristics of each community and proposing improvements to their living conditions.

Collaboration with public authorities, third-sector organisations, universities and companies is essential for implementing these programmes, increasing the number of beneficiaries, and ensuring the long-term impact of the results.

This year, the Foundation has signed and renewed 25 agreements with different organisations to carry out these programmes.

In figures

Homes rehabilitated since the creation of the Energy Rehabilitation Solidarity Fund:

1,745

721 in 2020

Beneficiaries of the various volunteer programmes:

14,451

Volunteers who have participated in the activities organised:

364

People trained since the creation of the School of Energy:

23,158

3,939 in 2020

Assessment of the School of Energy by the beneficiaries:

9.26 out of 10

Agreements with entities for the development of all our programmes:

25



First edition of the Prize for best social energy initiative

As part of its mission to promote initiatives aimed at alleviating energy vulnerability, in 2019 Naturgy Foundation issued the first call for applications for this Prize. The purpose of the initiative is two-fold: to give visibility to noteworthy people, organisations or institutions linked to the social aspects of energy, and to help fund initiatives that contribute towards improving the quality of life of the most vulnerable.

Applications must be for projects already under way or completed, that are related to energy, that have a clear social purpose, and that help those with the greatest need to improve their living conditions: educational projects or projects related to issues such as energy vulnerability, entrepreneurship, social inclusion, health, the environment or the circular economy. The monies awarded must be used to fund the entities' own social projects.

In total, 88 applications were received. for projects with a total of approximately 3.3 million beneficiaries, representing all the Autonomous Communities of Spain.

The winners of this first edition were:

- Winner: ECODES for its "No home without power" project, awarded a prize of 60,000 euros.
 This initiative addresses energy poverty by providing knowledge and empowering people to reduce their bills and make their homes more comfortable.
- Runner up: the Isadora Duncan Foundation for the project "Family financial education and energy poverty", which was awarded a prize of 30,000 euros. This programme is based on three pillars: advice, training and publicising ways to make better use of energy.

During 2021 the second edition of this prize will be awarded. This year, additional credit will be given for projects able to adapt to the COVID-19 crisis, as well as those that represent some type of social or technological innovation.

Energy Rehabilitation Solidarity Fund

The Energy Rehabilitation Solidarity Fund has contributed to alleviating energy poverty in Spain since October 2018. It does this by addressing one of its main causes: energy inefficiency in homes. Through express renovations, the fund improves the living conditions of the homes of vulnerable families, enabling them, in many cases, to reduce their energy consumption and make their homes more comfortable.

In 2020 this programme has been carried out through agreements with 12 social organisations: Casa de María Reina de la Paz Association, Confianza Association, Cáritas Española, Cáritas Madrid,

the Spanish Red Cross, Domus Misericordie Sant Josep Foundation, Habitat 3 Foundation, Foment de l'Habitatge Social Foundation, Isadora Duncan Foundation, La Vinya Foundation, Mambré Foundation and Roure Foundation. The Naturgy Foundation also rehabilitates homes at the request of the Social Services of municipalities throughout Spain through a programme financed by the Rehabilitation Fund.

Since the creation of the Fund 1,745 homes have been rehabilitated in partnership with these entities and public authorities, 721 of them during 2020.

The figures for the works financed by the **Energy Rehabilitation Solidarity Fund are:**

Carpentry, glazing	Blinds and awnings	Electrical/gas installation
14%	3%	13%
Repair/replacement of heating, cooling and domestic hot	LED lighting	Wall/ceiling insulation and damp repairs
water systems	28%	3%
25%		
Homeappliances	Other	
13%	1%	

Energy School

The School of Energy has continued with its training activities both for vulnerable families and for technicians from Social Services and social organisations. This year, for the first time, due to the pandemic, webinars have been held to train social care professionals in the main topics of interest, such as energy efficiency and utilities contracting, attended by 1,850 professionals from Social Services.

In 2020, a total of 3,939 people attended the 270 training workshops provided by the School of Energy, 104 of which were face-to-face and the rest online. The use of the online format allowed the workshops to be extended to all the Autonomous Communities of Spain.

Due to the pandemic, the proportions of families and technicians receiving training were the reverse of those in previous years. In 2020, 56% of the attendees were social services technicians and 44% were families, while in 2019 families accounted for 84%. Another key achievement in the year was the setting up of a technical office affiliated to the School providing direct assistance to users. 152 people have received personalised attention, giving them advice about their bills and energy consumption habits.

Attendees gave the training provided a satisfaction score of 9.26 out of 10 with 81.43% stating they would recommend it (NPS).

Since its creation in 2017, the School of Energy has run more than 2,000 workshops, with face-to-face courses in 639 municipalities in Spain, attended by 23,158 people who have learned to make better and more efficient use of energy, to understand their bills and to improve and adapt their utility contracts to their needs.

Study "Energy poverty in Europe. A comparative analysis"

The Foundation's joint research activity with the Chair of Energy Sustainability of the Barcelona Institute of Economics-University of Barcelona continued with the publication in 2020 of the study "Energy Poverty in Europe". A comparative analysis". It provides a comparative analysis of policies to combat energy poverty implemented in Germany, France, the UnitedKingdom, Portugal and Spain. The book also provides recommendations so that effective decisions to combat vulnerability can continue to be made.

The study was presented on December 11 at the webinar "Measures against energy poverty in Europe", organised by the Foundation and by the Chair of Energy Sustainability of the IEB-University of Barcelona. The session was attended by experts from the academic world from all over Europe who had participated in the preparation of the study.

Other participants included Jacobo Llerena, Deputy Director General of Energy Efficiency of the Ministry for the Ecological Transition and the Demographic Challenge; Stefan Bouzarovski, former president of the European Observatory on Energy Poverty; and Catharina Sikow, the Director responsible for the Internal Energy Market in the European Commission's Directorate General for Energy.



Energy volunteering



During this year, due to the exceptional situation caused by COVID-19, we adapted our energy volunteering programmes, so they could continue to meet the need for energy advice, which was aggravated by the lockdown. The programmes carried out by volunteers include:

- Online energy efficiency workshops: training sessions for groups of people in vulnerable situations.
- Online energy rehabilitation audits: In partnership with entities and social services, these audits identified possible interventions related to energy rehabilitation.
- Online energy advice: to persons referred by entities or Social Services or through volunteers.
- Online energy advice to customers in vulnerable situations: A new line of action was launched aimed at vulnerable Naturgy customers for whom potential measures to help reduce bills are detected or who may be entitled to a social discount. Efficient consumption habits at home were also encouraged.
- Energy awareness workshops for children and young people: fun educational sessions for groups of children in primary and secondary education on energy efficiency, saving and sustainability.
 They were organised in schools and in toy libraries

belonging to the entities with which we work. This year, the awareness-raising programme was extended to children and young people with intellectual disabilities through the Gil Gayarre Foundation.

- Coaching: a programme aimed at young people at risk of social exclusion who are taking energyrelated vocational training courses. Volunteers mentor them to help them with their career choices and encourage them to continue training as a tool to achieve their goals.
- Energy sector masterclass: our volunteers
 participated in ad hoc sessions related to the
 energy sector, aimed at vocational training students
 from vulnerable sectors of society. The sessions
 are intended to provide knowledge, arouse their
 curiosity and motivate them to continue with their
 studies, so reducing the risk of them dropping out of
 education.

All these volunteer activities were made possible through agreements signed with the Spanish Red Cross, the Gil Gayarre Foundation and the Exit Foundation. We worked with these entities to select families and young people for training and the homes visited. In total, some 2,000 families have been helped with counselling and training workshops under the energy volunteering programme, including young people and children.

"I have always been interested in volunteering, I have taken part in others outside Naturgy and when I saw it was possible to join a volunteering programme as interesting as this one run by the Foundation, I have been able to use the knowledge I acquired during all these years to help vulnerable families."

Beatriz León Durán, volunteer



Environmental Volunteering

During 2020, under the Environmental Volunteering Programme, eight natural heritage conservation days were organised with the aim of promoting awareness, education and environmental responsibility among employees and their families. In total, 367 volunteers participated, of whom 127 were employees and 240 were family members.

In the first quarter of the year, two events were held in natural parks. In later months, this activity was adapted to an online format so it could continue despite the movement restrictions due to the pandemic. The online workshops involved four awareness-raising activities and measures to promote conservation in natural spaces implemented by the Global Nature Foundation.

Volunteering in Laguna Chica and Laguna Larga (Villafranca de los Caballeros, Toledo)

The activities carried out during the volunteering day at this site included bird ringing, rubbish collection around the Laguna Grande and pruning in Jaraiz. Other activities organised included bird watching in the wetland and a walk through the lagoon. The volunteers also attended a presentation about the "Paludícola" project, in which Naturgy participates.

Volunteering in the Betanzos-Mandeo protected natural area (A Coruña)

This volunteering event was part of the winning project of the 2018 Social Entrepreneurs Award, "Stewardship of the Atlantic Forest by the Mandeo River" (Galicia), organised by the Fragas do Mandeo Foundation, which

the Foundation continues to support through volunteer days to restore these habitats. During the day 581 kilos of waste were collected. The volunteers also had the opportunity to see, from the Souto ornithological observatory on the shores of the Betanzos estuary, numerous aquatic birds that flock to the marsh to spend the winter in this protected natural area.

Online workshop on urban allotments

During the two sessions that were held on this subject, attendees learned how and when to sow and plant, and also how to combat aphids and other garden pests. They also made their own tools with recycled materials and built insect hotels to be sited on the "Los Corrales de la Abuela" estate, located in the municipality of Villacañas (Toledo). This space, managed by the Global Nature Foundation, is used for experimentation, sampling and demonstrating agricultural management and biodiversity improvement techniques.

Online workshop on bird identification

In this workshop, the volunteers learned about birds, what species there are, where they live, what they eat, which are invasive species, and why they are problematic.

They also made feeders using recycled materials to hang in a window or balcony in their homes. Finally, they built nesting boxes for birds to be placed on the "Los Corrales de la Abuela" estate.

Online workshop on bats

In this workshop, volunteers learned about the characteristics of these mammals, as well as the different species that exist, their diet and their different habitats. They also built nest boxes for bats to be sited on the "Los Corrales de la Abuela" estate.

Social volunteering

In response to the social needs generated by the pandemic, the Naturgy Foundation launched a number of volunteering programmes in 2020 that were not linked to energy, but were equally beneficial for vulnerable people.

COVID Volunteering

As the pandemic spread, urgent needs arose related to the availability of medical supplies. Our volunteers quickly set to work manufacturing protective visors and masks and donating useful material to health centres, with additional materials contributed by the Foundation itself, including a financial donation for food aid.

Due to the restrictions on movement established under the State of Alarm, employees in operational posts, who have to go out to work, volunteered to help in the logistics and distribution of material: tablets and computers, so that children without access to technology could continue their studies, and medical supplies made or donated by our volunteers. The Foundation also made specific donations to social and health entities such as the IFEMA Hospital in Madrid.

Finally, the volunteers worked with the Valencia Red Cross making follow-up calls to the families who received its help during the State of Alarm.

Recipients
of protective
equipment

Materials donated (units)

2,900

977

Families accompanied by telephone Beneficiary organisations

155

27

International Volunteer Day

To mark International Volunteer Day, Naturgy Foundation launched two new volunteering initiatives reflecting the complex nature of this difficult year.

These new initiatives were of a more social nature, less related to energy, and were intended to meet other needs of the vulnerable families who are helped by the social organisations that we work with. They were:

- Kilometres for charity: Our volunteers recorded the kilometres they had covered on foot, running or by bicycle, and the Foundation converted them into euros which were donated to the Cáritas Spain "Fair Food" programme. The 12,000 euros donated helped 857 families.
- Three Wise Men for a day: our volunteers became
 the Three Wise Men for a day to help the wishes of
 children invulnerable families come true. Gifts were
 distributed to 68 children, who otherwise would not
 have received anything.





Chair of Energy and Poverty of the Comillas Pontifical University

Since 2017, the Foundation has been one of the main contributors to the Chair of Energy and Poverty at Comillas Pontifical University and a member of its Advisory Board.

The purpose of the Chair of Energy and Poverty is to make a substantial contribution to alleviating energy poverty based on its extensive research work on some of Spain's main social challenges. The Chair is ideally placed to bring together studies, legislative proposals and measures to educate and raise awareness that contribute to mitigating and, ideally, eradicating this problem. This work has two prongs. The first involves interdisciplinary research focused on the current situation, while the second is to act as a forum to facilitate contact between the entities and people involved in the fight against energy poverty.

The interdisciplinary approach is drawn together in a space for reflection where representatives from four research areas (engineering, social work, business and law) collaborate with partner entities

and energy companies. This forum for the exchange of knowledge offers a broader vision than that of the four disciplines individually, making use of its privileged position as a university body to play a part in combating energy poverty.

In 2020, the Foundation participated in three interdisciplinary seminars organised by the Chair: "Innovative proposals for combating energy poverty "(January)," The present and future of energy vulnerability in Spain in the context of the COVID-19 emergency "(May), and "Innovating in the social sciences from the perspective of the most vulnerable. Exchanging knowledge and practices" (November). The Foundation also took part in four meetings of the Advisory Board, of which it is a member, submitting contributions to various studies carried out by the Chair.

International social action

Due to the COVID-19 crisis, the Foundation's social activity outside Spain was reduced notably in 2020.

Social Action in Argentina

The social isolation measures decreed by the Government due to the COVID-19 pandemic obliged the Naturgy Foundation to reformulate all its programmes in 2020. The programmes which took place are detailed below:

1. Efficient use of resources. The lockdown in response to the health crisis meant all training activities on energy efficiency were migrated to an online format. The content of face-to-face training activities was adapted and the www.cuidemosnuestrosrecursos.com portal was promoted through a range of channels and publicity actions. The portal provided training for both students and teachers on energy efficiency and the responsible use of gas, electricity, water and paper. The portal was launched in July 2020 and since then it has had more than 9,000 visits.

The Foundation also ran social network campaigns on preventing carbon monoxide accidents, energy efficiency and responsible consumption.

A total of nine campaigns attracted an audience of 2,703 people.

2. Sowing the Future. Environmental workshops were held online this year, looking at urban gardens and allotments and covering issues such as how to care for and maintain them over time, how to properly prepare the soil, and how to get them ready to grow vegetables. 691 people received training through these workshops.

At its meeting on 25 February 2020, the Board of Trustees of the Foundation agreed to wind up and close the Naturgy Foundation in Argentina. This will not affect ongoing and future projects and activities, which will continue to be carried out and supported by the Naturgy Foundation, as in the other countries in which the group is present.

Social Action in Morocco

The Foundation is convinced that social progress and economic development must be compatible with the efficient use of energy. It promotes this through partnerships with associations, schools and primary health care centres in the municipalities through which the Maghreb-Europe gas pipeline passes.



During 2020, the Foundation continued the work started in 2018, with the aim of improving the energy conditions in schools whose situation is precarious. Health centres have been added to the network of schools this year and work was carried out in the Ain Béni Mathar health centre, in the province of Jerada, 35 km west of the Frontera de Metragaz compression station, and 84 km south of the city of Oujda. This refurbishment work will benefit the population of the city of Ain Béni Mathar (about 16,000 people), the nomadic communities of the region (about 11,300 people), and the 10 health professionals who care for them (doctor, nurses and service agents). Heating and sanitary hot water have been installed in the centre powered by solar panels, together with LED lighting, and improvements to the facilities and equipment.

Social Action in Mexico

In 2020, the Mexican government, through the Mexican Agency for International Development Cooperation (AMEXCID), approved the principle behind the Naturgy Foundation's projects in Mexico to alleviate energy vulnerability. With this approval, the project was submitted to the Spanish Cooperation, Research and Development Agency (AECID), leading to the rollout of social activities in Mexico City and in the city of Monterrey, where more than 80% of the Naturgy group's Mexican customers are located.

The goal of this project is to help 100% of Naturgy's vulnerable customers with at least a home rehabilitation initiative, training in the Energy School or energy volunteering. This project is the continuation of the first phase developed with the Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM) during 2019.

European projects

In order to raise its visibility and strengthen its leading role in the development of programmes to combat energy vulnerability, the Foundation participates in calls for funding applications. In some cases, it was the beneficiary of grants for specific projects in the field of energy poverty. In others it acted as a member of the advisory board to which measures and suggestions are presented.

Direct participation in implementing projects:

1. SOCIALWATT PROJECT. Connecting Obligated Parties to Adopt Innovative Schemes towards Energy Poverty Alleviation



The Naturgy Foundation is working in partnership with 13 other entities in this H2020 project. Its aim is to develop three tools: one to detect vulnerable

consumers; a second to draw up an action plan to combat vulnerability; and a third to measure the impact of said plan.

It is a three-year project with a total budget of 2 million euros, of which 255,000 euros are allocated to the Naturgy Foundation. In 2020, the Foundation received 115,000 euros for the execution of this project and the outstanding amounts will be received in 2021 and 2022.

2. EPIU. Energy Poverty Intelligence Unit







This project, led by Getafe City Council, involved developing a new smart system for detecting cases of energy vulnerability, with special emphasis on hidden energy poverty. This initiative is funded under the fourth UIA (Urban Innovative Actions) call of 2019.

The EPIU project is based on three key aspects. The first of these is the design of an intelligent data analysis system that identifies and predicts which groups in the population are affected by energy poverty and classifying them according to their habits, consumption, socio-economic characteristics and housing status. The second focus of the project is to establish a multidisciplinary and horizontal municipal public service to oversee solutions and evaluate the outcomes and effectiveness of local policies. This second focus is based on an awareness that energy poverty is due to multiple factors and solving it calls for coordination and collaboration between different areas of the city council and a holistic approach at the municipal level.

The third and last element of the project will be to implement customised solutions in line with the characteristics of each of the clusters or groups identified as suffering energy poverty, acting on three scales (neighbourhood, building and home) to mitigate the energy poverty that occurs in the municipality of Getafe in winter and summer.

It is a 3-year project, with a total budget of 6.2 million euros, of which 80% is financed by ERDF funds while the rest is co-financed by the participants. The Naturgy Foundation's contribution is 89,000 euros. In 2020, the foundation received 36,000 euros for the execution of this project; and the outstanding amounts will be received in 2021 and 2022.

Participation as a member of the advisory board:

1. POWERTY project. Renewable energies for vulnerable groups

This project is part of the Interreg Europe programme and aims to make **renewable energy** available to **vulnerable households** affected by energy poverty through **innovative low cost solutions**.

2. Turnkey Retrofit

This project aims to develop an integrated housing rehabilitation service, based on a user-friendly digital platform that acts as a one-stop shop (Solutions4Renovation) offering the following services to property owners: an initial technical and social or behavioural diagnosis, contacts with suppliers/installers, works contracting, the structuring and provision of tax incentives, on-site monitoring and coordination of works and quality control, start-up and subsequent evaluation of the works and the performance of the building.

COVID donation to the "Cruz Roja Responde" appeal

At the beginning of the pandemic, Naturgy employees and members of its Board of Directors, together with a contribution from the company itself, made a 2.3-million-euro donation to the Red Cross in response to an appeal from the humanitarian organisation for funding for a range of projects to provide relief during the COVID-19 crisis.

The funds collected from Naturgy employees and the members of its Board of Directors, which Naturgy matched, were donated through the Naturgy Foundation. The funds were used for:

- The acquisition of personal protective equipment and volumetric respirators and associated consumables for health centres.
- Social inclusion projects.





The ongoing mission of the Energy and environment area is to raise public awareness and understanding of matters concerning sustainability and the energy transition through communication, dissemination and debate with experts on current issues related to energy, technology and the environment.

Naturgy Foundation Annual Report **2020**

O4 | Energy and environment



Communication, dissemination and debate on current issues related to energy, technology and the environment are among the Foundation's ongoing priorities.

This year, due to the health emergency and the exceptional measures introduced in response to the pandemic, the **books, studies and reports** prepared by worldwide experts in each subject, and edited and published by the Foundation, have been mainly brought to the public using online **communication channels**.

This new **online** approach used two main formats: **webinars** (online seminars to present publications and discuss their content) and **online** publication (by email). In both cases the publications are accompanied by videos summarising their content, making them easily accessible with the main conclusions explained by the authors.

The new communication channels have allowed publications to reach a greater audience than in previous years, both nationally and internationally. This is clear

from the figures, with more than 2,500 attendees for the webinars, over 19,000 views of the videos, and more than 7,400 downloads of publications from the Knowledge Centre on our website.

In 2020, the Naturgy Foundation organised a second series of the **Energy Prospectives** high-level conferences in partnership with the **IESE Business School**.

The aim of this programme, which has once again received the trust and interest of specialised audiences, is to promote debate about the energy sector, its current situation and the near future, with speakers of recognised international prestige.

The two sessions in 2020, held face-to-face and rebroadcast via **streaming**, were inaugurated by

Professor **Franz Heukamp**, General Director of IESE, and **Francisco Reynés**, chairman of Naturgy, with closing words from **Rafael Villaseca**, President of the Naturgy Foundation.

The economic, technical and regulatory conditions facing the energy sector in the future were discussed in the two sessions. Experts Miguel Arias Cañete, Luis Atienza Serna, Christophe Brognaux and Eva Valle Maestro addressed in detail issues such as disruptions in the energy industry, the electricity market in Spain in the next 10 years, Europe and the energy transition, and the electricity sector in the energy transition.

The February session was held in Seville, in partnership with the **Spanish Chapter of the Club of Rome**, and was the only national seminar held in person this year to discuss air quality, one of the greatest issues currently affecting cities.

Using the new **online** communication format, five **webinars** were produced during the year:

- Presentation of the book "Renewable gases. An emerging energy vector", by its authors from the Polytechnic University of Catalonia (UPC), Xavier Flotats, Professor Emeritus of environmental engineering and doctor of industrial engineering, and Alvaro Feliu, civil engineer and expert on environmental matters, waste management and sustainable development.
- Presentation of the report "Climate change.
 Scientific bases and questions for debate", in partnership with Harvard University and the Technical University of Madrid and with the participation of the Minister for the Ecological Transition and Demographic Challenge, Teresa Ribera. The report was coordinated by Julio Lumbreras, Professor at the Technical University of Madrid and visiting scientist at the Harvard University School of Public Health, with the participation of renowned international experts.
- Presentation of the study "Sector coupling. A vision for Spain", prepared by the consultancy firm Frontier Economics and Aachen University in Germany, analysing how the integration of gas and electricity systems (sector coupling) can help achieve 2050 emission reduction targets.

- Presentation of the book "Hydrogen. Energy vector of a decarbonised economy", prepared by experts from the Institut de Recerca en Energia de Catalunya (IREC) and presented by two of its authors, Juan Ramon Morante, Director of IREC and Professor at the University of Barcelona Faculty of Physics, and Albert Tarancon, Head of the H2 Fuel Cells Group at IREC and ICREA researcher.
- Presentation of the "Cost-effective decarbonisation study" and its executive summary, organised by the Florence School of Regulation, of the European University Institute. The study was prepared by the experts Andris Piebalgs, Christopher Jones, Piero Carlo Dos Reis, Golnoush Soroush and Jean Michel Glachant.

Seven **online presentations were also given** on the following reports and studies:

- "Evolution of greenhouse gas emissions in Spain 2005-2018", prepared by the consultancy firm Liken Carbon Hub.
- Second annual report "The Spanish power sector in numbers. Report 2019" (in-house report).
- Second annual report "The Spanish natural gas sector in numbers. Report 2019" (in-house report).
- "Integration of Renewable Technology in the Energy Transition", prepared by PwC.
- "Carbon pricing. Main achievements in Europe and options for deep decarbonisation", produced by Compass Lexecon.
- "Natural gas in industry", produced by Lonjas Tecnología, S.A.
- "Economic and financial situation of the main companies in the Spanish power sector 2017-2019", prepared by Deloitte.

ENERGY PROSPECTIVES

EP#4, 14 July 2020



Speaker: **Christophe Brognaux**, Director and Senior Partner of Boston Consulting Group (BCG). Talk: **"Irruptions in the energy industry"**.

Speaker: **Eva Valle Maestro**, specialist in economic policy and founder of the consulting firm QED Economics. Talk: **"The electricity market in Spain in the next 10 years"**.

Moderator: Prof. Javier Díaz Giménez, IESE.

The global head of energy at the Boston Consulting Group was hopeful about the possibility of achieving the emissions reduction targets, and called for the business world to adapt and for government bodies to collaborate.

Eva Valle, meanwhile, spoke about the prospects for the electricity market in Spain in the next ten years.

EP#5, 25 November 2020



Speaker: **Miguel Arias Cañete**, former European Commissioner for Climate Action and Energy. Talk: "**Europe and the energy transition**".

Speaker: **Luis Atienza Serna**, President of Argo Capital Partners and former president of REE.

Talk: "The electricity sector in the energy transition. Regulatory challenges"

Moderator: Prof. Juan Luis López Cardenete, IESE.

The former EU commissioner reminded his audience that the emission reduction target had been more than met in Europe so far and highlighted the efforts made by the electricity sector. "The reduction in emissions has occurred at the same time economic activity was growing by 62%, which shows that positive economic growth can be achieved in an environmentally friendly way, by reducing greenhouse gas emissions", he said.

The former president of REE, Luis Atienza, said "we must not make the same mistakes as in the past by treating technologies in their early stages of development as commercial technologies".

NATIONAL SEMINAR

Seville, 12 February 2020

Changing the energy model to improve air quality





Opening session chaired by:

Maria Eugenia Coronado, General Manager, Naturgy Foundation.

Jorge Jimenez, Managing Director, Andalusian Energy Agency.

Esperanza Caro, General Director of Sustainable Development, Financing and Foreign Action, Seville City Council.

Closing session chaired by:

Jose Manuel Moran, Vice President, Spanish Chapter of the Club of Rome.

Representatives of the local authority, business and the academic world agreed on the need to continue implementing measures to reduce pollution levels in cities. The General Director of the Naturgy Foundation, María Eugenia Coronado, pointed out that "the World Health Organisation has been warning us of the effects of local pollution on human health for a long time: 91% of the world's population breathes polluted air, which causes 7 million deaths a year, of which 3.8 million are due to the air we breathe inside buildings and 4.2 million to the outside air".

One of the main messages of the day was that the domestic use of biomass, mainly in heating, reduces sulphur dioxide emissions but contributes to increasing other pollutants that harm the air quality in urban environments.

PUBLICATIONS

14 May 2020

Evolution of greenhouse gas emissions in Spain 2005-2018

(Online presentation)



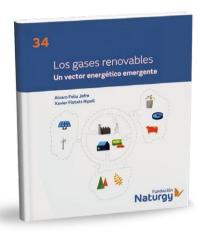
Study prepared by the international environmental consultancy **Liken Carbon Hub**, examining greenhouse gas emissions from 2005 to 2018, using data extracted mainly from the National Greenhouse Gas Inventory (NGEI).

Greenhouse gas (GHG) emissions associated with power generation in Spain have been cut in half since the ${\rm CO}_2$ emissions trading scheme came into force.

4 June 2020

Renewable gases. An emerging energy vector

(Webinar)



Speakers:

Xavier Flotats, Doctor of Industrial Engineering and Emeritus Professor of Environmental Engineering, Polytechnic University of Catalonia (UPC).

Alvaro Feliu, Civil Engineer (UPC) and expert on environmental matters, waste management and sustainable development.

The publication addresses the development of renewable gases in Spain from a technical, economic and environmental perspective. One of the main conclusions of the study is that the introduction of renewable gases in the country would reduce greenhouse gas emissions forecast for 2030 by more than 10%.

European countries such as Germany, the United Kingdom and Sweden are very advanced in the development of this new energy vector, which Spain's forthcoming Climate Change Law seeks to promote.

25 June 2020

The Spanish power sector in numbers. 2019 report

(Online presentation)

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1 July 2020

The Spanish natural gas sector in numbers. 2019 report

(Online presentation)





These two publications are the second in an annual series compiling, in a single document, all the official and public data available from the electricity and natural gas sector for the period 2015-2019.

The **2019 power sector report** concludes that installed renewable capacity in the Spanish mainland system, excluding hydraulic power, grew by 20% last year, bringing the total to 40%, close to the annual record.

The **2019** natural gas sector report, meanwhile, concluded that demand for natural gas in Spain grew by 14% in 2019, playing a major part in the growth of renewable capacity.

The reports were presented and analysed by economist and energy market specialist **Miguel Angel Lasheras**.

10 July 2020

Integration of Renewable Technologies in the Energy Transition

(Online presentation)



This study, prepared by **PwC**, argues that the growing use of renewable energies means urgent transitional mechanisms are needed to guarantee the sustainability of the system and security of supply.

According to the report, the European Union is authorising member states to implement, on a temporary basis, essential mechanisms to guarantee power systems' supply security in the light of the development of renewable energies.

PUBLICATIONS

6 October 2020

Sector coupling. A vision for Spain

(Webinar)



Speakers:

Fernando Barrera, Director of Energy, Frontier Economics Madrid.

Pablo Gonzalez, manager, Frontier Economics Madrid.

This report by **Frontier Economics** and Aachen University in Germany concludes that integrated infrastructure management (**sector coupling**) will be essential to achieve decarbonisation. It minimises costs, makes it possible to decarbonise sectors that are difficult to electrify, increases security of supply and encourages the growth of an industry with export and job creation potential.

23 October 2020

Carbon pricing. Main achievements in Europe and options for deep decarbonisation

(Online presentation)



The report, prepared by **Compass Lexecon** and published in partnership with the **Spanish Chapter of the Club of Rome**, analyses the experience accumulated in Europe since the creation of the EU Emissions Trading System in 2005, and proposes possible reforms of this market in order to meet the new **European Green Deal** 2030 target for emissions reductions which has been raised from 40% to 55%.

29 October 2020

Climate change. Scientific bases and questions for debate

(Webinar)



Speakers:

Daniel P. Schrag, Professor and Director of the Harvard University Center for the Environment.

Rafael Borge, Director of the Environmental Modelling Laboratory at the Higher Technical School of Industrial Engineers of the Technical University of Madrid.

Kirsten Dunlop, CEO of Climate-KIC.

Howard Herzog, Principal Research Engineer at the MIT Energy Initiative.

Ruben Juanes, Professor at the Massachusetts Institute of Technology (MIT) and Director of the Henry L. Pierce Laboratory for Infrastructure, Science and Engineering.

Julio Lumbreras, Professor at the Technical University of Madrid and Visiting Scientist at the Harvard University School of Public Health.

Jose Manuel Moreno, Professor of Ecology at the University of Castilla-La Mancha and former Vice-Chair of WG2-IPCC.

Asunción St-Claire, member of the EC Mission Board on Climate Change Adaptation.

The publication, presented in collaboration with **Harvard University** and the **Technical University of Madrid**, is intended to raise awareness of the complexity of the challenges posed by climate change. The academics called for a strategy to adapt to this challenge that goes beyond decarbonisation targets.

The Minister for the Ecological Transition and Demographic Challenge, **Teresa Ribera**, also participated in the presentation of the report.

The study was coordinated by **Julio Lumbreras**, Professor of the Technical University of Madrid, with the participation of other experts: **Dieter Gerten**, Professor of Global Climate Change and Hydrology at the Humboldt-Universität in Berlin; **Pedro Linares**, Professor of Industrial Organisation of the ICAI School of Engineering, and **Iñigo J. Losada**, Director of Research at IHCantabria.

PUBLICATIONS

5 November 2020

Hydrogen. Energy vector of a decarbonised economy

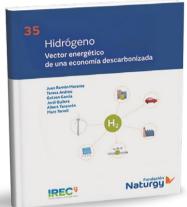
(Webinar)

18 November 2020

Gas in industry

(Online presentation)





Speakers:

Juan Ramon Morante, Director of IREC and Professor at the Physics Faculty (UB).

Albert Tarancon, Head of the H2 Fuel Cells Group at IREC and ICREA researcher.

The experts from the Catalonia Institute for Energy Research (IREC) call for targeted regulation to scale up technology, reduce costs and attract investment.

Spain is the country with the most production potential in Europe, thanks to its geographical and climatic conditions, representing an opportunity for the green economy.

Using hydrogen to convert electricity into gas would also make it possible to connect large gas and electricity infrastructures.

The book was written by 6 IREC authors: Juan Ramón Morante, Teresa Andreu, Gotzon García, Jordi Guilera, Albert Tarancón and Marc Torrell.



This study, prepared by **Lonjas Tecnología**, **SA**, analyses the important role of natural gas in the industrial sector, supplying the energy necessary for both industrial processes and for the generation of electricity, contributing to meeting European greenhouse gas reduction targets and to improving energy efficiency.

21 December 2020

Economic and financial situation of the main companies in the Spanish power sector. 2017-2019

(Online presentation)

3 December 2020

Cost-effective decarbonisation (Webinar)



This study, prepared by **Deloitte**, is the second in an annual series intended to provide verifiable information on the economic and financial situation of the electricity sector in Spain, including electricity generation, marketing and distribution activities.

The analyses were mainly based on the public information available from the main diversified groups in the Spanish electricity sector.



Speakers:

Jean Michel Glachant, Director, Florence School of Regulation.

Andris Piebalgs, Senior Researcher, Florence School of Regulation.

Christopher Jones, Professor, Florence School of Regulation.

This report by the **Florence School of Regulation** (**European University Institute**) argues that the faster costs can be reduced by funding research and supporting pilot projects, the fewer subsidies will be required for production.

The document supports the Commission's Hydrogen Strategy on using the current gas infrastructure as the most cost-effective way to build the future hydrogen distribution network. The authors argue that the cost of renewable energy will be significantly lower by 2050, due to expected technological improvements.



The Foundation has focused its efforts on developing innovative teaching methods with the aim of making its programmes more educational and informative, forging disruptive online discourses that transform social perceptions of new energy technologies, the environment and the energy transition, in line with the United Nations Sustainable Development Goals.

Naturgy Foundation Annual Report **2020**

05 | Education and dissemination



2020 has put the Foundation's capacity to adapt to the test, reinforcing our conviction that working to serve society and the educational community continues to be at the heart of what we do. As the United Nations stated in its August 2020 report, the COVID-19 pandemic has caused the greatest disruption in history to the world's educational systems, affecting almost 1.6 billion students in more than 190 countries on every continent. Every aspect of education has had to be adapted to online learning.

The crisis has stimulated innovation in the education sector, and has also led the Foundation to apply disruptive approaches to develop new methodologies, ensuring, above all, that the quality of these new ways of providing learning activities is acceptable and that they do not leave anyone behind. The Foundation's education and dissemination area has developed distance education solutions that support the work of Education Departments in Spain's Autonomous Communities to enable learning to continue with the minimum disruption to teachers, students and families.

The digitalisation process has allowed the Foundation to continue offering activities to build knowledge about energy and environmental and technological issues, in line with the United Nations Sustainable Development Goals (SDG).

Throughout the year, activities focusing on education and training have been in great demand and have been much appreciated, by both the educational community and by the entities and public authorities responsible for education.



In figures

Total number of users:

191,600

Energy Challenge:

10,200

Efigy Education online:

164,500

Vocational training:

5,100

Efigy Education in the classroom:

9,500

Other programmes:

2,300

Institutional agreements:

Satisfaction surveys:

6

9 out of 10

Efigy Education

All the Foundation's activities aimed at the formal education system, from infant schools to sixth forms, have been brought together this year under this title. Its mission is to teach young people the values of efficiency and responsible energy consumption, about new energy technologies, air quality, efficient transport, and the history and future of energy, and to encourage them to enter STEM careers (science, technology, engineering and mathematics).

The Foundation believes one of its duties is to inspire younger generations to become aware of the complex energy challenges that will have to be addressed in the future. As a society, we will need all the talent available to transition quickly towards a new energy system that is more reliable, technology-based and greener.

Efigy Education in the classroom

This roaming programme provides innovative workshops to explore new energy technologies. The aim is to transfer in an entertaining and educational way specialised knowledge about the transition to a new energy model, protecting the environment and responsible energy consumption. The workshops are designed for all stages of formal education, with special attention and mentoring for more vulnerable or complex groups of students. The contents of the programme are adapted to the different curricula and key skills and use a methodology aligned with new teaching trends and models.

In 2020, due to health restrictions imposed due to the pandemic, face-to-face workshops were suspended between March and August and were gradually reintroduced from September, complying with all health protocols and following the COVID-19 protection plan.

Currently, these educational workshops can also be provided in a **virtual format**. Using the digital channel that suits each centre, the educator gives explanations in real time with dynamic activities that encourage interaction and the participation of all students. A few days prior to the workshop, the teacher receives instructions on how the session will work and a list of materials to be used during the session.



Efigy Education digital

To adapt to the new needs resulting from the health emergency, this year the Foundation has made Efigy Education teaching resources available in digital format through its website.

Efigy Education online provides universal access to educational and informative material developed by experts on topics such as the energy transition, the circular economy, sustainability, efficient building, energy efficiency, air quality and new energy technologies.

These resources, which the Foundation already offered free of charge, have become accessible to any educational centre, whatever its social and economic situation, or its location, fostering equal access to education and educational equity.

The Efigy Education online materials include interactive content based on gamification, teaching, for example, how to build a sustainable home or school, renovate using energy efficiency criteria or analyse how to save energy at home.

New content has also been generated in videos by scientific communicators Dani Jiménez and Luis Quevedo, with experiments on energy, technology workshops to teach key concepts in a simple and fun way, and specialised knowledge on energy for STEM disciplines.





Efigy Education online also includes downloadable resources with activities to do at home and a **family film season**, showing well-known animated films from a new perspective, raising awareness of today's energy challenges.

The Foundation provides all these online materials to support teachers in primary, secondary and sixth form education and vocational training throughout Spain during the academic year. It also offers **mentoring** programmes and initiatives to encourage young people to consider careers in technology, such as the Service Learning Programme (APS) on energy expenditure, aimed at 3rd and 4th year secondary school students; travel suitcases for employees, aimed at all educational stages; and the digital application Efigy Edifica, which teaches about efficient building construction.

Girls First, in First Lego League

Under the name #EfigyGirls, the Foundation has provided support and mentoring for eight girls' teams for ages 10 to 16, who took part in the First Lego League, with projects related to innovation in the field of energy. Thanks to this support, one of the teams, the **Limahana Efigy Girls**, won the Innovation Project Prize in the tournament held on 8 February at the Polytechnic University of Catalonia School of Engineering.





Efigy Technology Contest

In 2020, the Foundation organised its **Second Efigy Technology Contest**, supported by the Ministry of Science and Innovation's Spanish Foundation for Science and Technology (FECYT), and the Spanish National Research Council (CSIC).

This initiative is aimed at 3rd and 4th year secondary school students throughout Spain, and in May awards were presented for the best school projects related to energy efficiency at an online, interactive event.



More than 400 students from 30 educational centres in Aragon, Asturias, Castilla-La Mancha, Castilla y León, Catalonia, the Community of Madrid, the Valencian Community, the Balearic Islands, the Canary Islands, La Rioja and Navarra entered the contest.

The awards gala, which was **live-streamed**, was led by the scientific communicator Luis Quevedo with the participation of the General Director of the **Spanish Foundation for Science and Technology (FECYT)**, Paloma Domingo, and the institutional delegate of the **Spanish National Research Council (CSIC)**, Marina Villegas.

The Foundation has launched the 3rd edition of the contest, with the renewed aim of fostering the values of energy efficiency and encouraging young people to enter careers in technology. The awards will be presented in the first half of 2021.

"Meet a scientist" Contest

The Foundation once more supported the **3rd edition of the "Meet a scientist"**, organised by the Council of Foundations for Science set up by the FECYT, whose members are the Scientific Foundation of the Spanish Association Against Cancer, the Eduardo Barreiros Foundation, the Junior Achievement Foundation, the Pfizer Foundation and the Telefónica Foundation.

This initiative aims to give new generations access to education in the field of science and technology. The idea is for young people to research a topic and answer key questions about it, thereby developing their speaking skills. The award ceremony for the contest was held on February 13, at the Pfizer-University of Granada-Junta de Andalucia Centre for Genomics and Oncological Research (GENYO) in Granada.

Vocational training for employability

2020 was a decisive year for the Vocational Education and Training (VET) for employability carried out by the Foundation in response to demand from the sector and the public authorities responsible for education for training that meets the current needs of the energy sector

The Foundation has expanded its VET programme with courses to train VET teachers and employability trainers in a range of specialised areas: **sustainable building and rehabilitation**, **renewable gas**, **sustainable transport and energy vulnerability**.

The training is provided in two formats: one developed in partnership with the education departments in each Autonomous Community and aimed at vocational training teachers in the formal education system, and one for professionals working in the sector who need to update their knowledge in order to improve their access to the labour market. As well as developing the training courses, teaching materials and equipment have been provided to implement the contents in the classroom. More than 250 people have participated in the courses, with an impact on 5,100 students who will finish their studies with a special mention.

Among these courses, of particular note are those provided under the framework of the Just Transition Strategy defined by the Ministry for the Ecological Transition and the Demographic Challenge, in order to improve the employability of professionals in the sector and advance towards the decarbonisation of the energy system in Spain. This training has provided the participants with a special mention in their qualifications that gives them an added advantage in the labour market. The training was provided in December and consisted of two courses, one on sustainable building and refurbishment and the other on renewable gases. Both have been recognised by the Government of Castilla y León, the Principality of Asturias and the Government of Galicia.

On 15 December the Foundation held a **Webinar on Vehicular Natural Gas and Sustainable Mobility** with Clara Sanz, General Secretary for Vocational Training of the Ministry of Education and Vocational



Training, who publicly recognised and supported the Foundation's work on Vocational Training for employability. Participating in the virtual event, aimed at teachers, students and anyone interested in the sector, were Felix Gilmartin García, Naturgy's Regional Representative for Mobility Projects; Carlos Lasheras, Technical Training Manager for Volkswagen Group Spain Distribution; Manuel Arias, Sustainable Transport Manager at SCANIA; and Alejandro González, manager of Gas Eco Supplies. The session showed how Spain's energy transformation is opening up opportunities for new professional careers, for which quality education and training that encourages talent and excellence will be required.

The Foundation takes its responsibility to new generations seriously, helping students with VET qualifications to be more employable and supporting professionals who need to update their knowledge on energy and sustainability matters.

To further develop its Vocational Training programme for employability, the Foundation has signed cooperation agreements with the education departments of the Autonomous Communities of Madrid, Galicia, Catalonia, Asturias, the Valencian Community, Castilla y León and Castilla-La Mancha. Within the framework of these agreements, the General Director of the Foundation, María Eugenia Coronado, has held online meetings with Enrique Ossorio, the Minister of Education for **Madrid Community**, and with Carmen Suárez, the Councillor of **Education of the Principality of Asturias**.





Courses provided in 2020

Course	Hours	Professional field	Autonomous Community Community of Madrid, Castilla-La Mancha, Galicia, Principality of Asturias, Castilla y León, Catalonia, Valencian Community	
Sustainable building and rehabilitation. The future of construction	30	Building and Civil Engineering Works		
Renewable gas. The future of energy and the environment	20	Energy and Water. Chemistry. Agriculture. Installation and maintenance	Community of Madrid, Castilla-La Mancha, Galicia, Principality of Asturias, Castilla y León, Catalonia, Valencian Community	
Energy vulnerability. How to help alleviate energy poverty	20	Sociocultural and Community Services. Social integration	Comunidad de Madrid, Castilla-La Mancha, Community of Madrid, Castilla-La Mancha, Galicia, Principality of Asturias, Castilla y León, Catalonia, Valencian Community	
Sustainable building and rehabilitation. The future of construction	30	Professionals in the sector	Community of Madrid, Galicia, Castilla y León Principality of Asturias, Castilla-La Mancha, Valencian Community, Andalusia	
Renewable gas. The future of energy and the environment	20	Professionals in the sector	Principality of Asturias, Castilla y León, Andalusia, Canary Islands	
Webinar on Vehicular Natural Gas and Sustainable Mobility	2	Transport and Vehicle Maintenance	Nationwide	



Energy Challenge, an immersive experience on the energy challenge

The mobile unit, **Energy Challenge, the challenge of the energy transition** has had a very special second year. Although the COVID-19 crisis meant the unit had to be adapted to meet health protection requirements, the results have been very positive.

From January to March, and then from October, the vehicle travelled around Spain following strict COVID prevention measures.

Municipal authorities and the educational community recognised and appreciated our efforts to get the vehicle on the road in these circumstances, giving them access to a quality resource despite the restrictions on movement in force throughout Spain.

The Energy Challenge is an innovative immersive experience that demonstrates technical concepts that will be vital to overcoming the challenges identified in the United Nations Sustainable Development Goals (SDGs) regarding energy.

The experience consists of a trip in a futuristic craft commanded by next-gen robots.

Visitors are invited to be part of a special mission that must solve the energy challenge, as an essential step for the development of society. The ship's crew observe the Earth and the cosmos to reflect and raise awareness of the crisis facing our planet and the need to contribute to issues of fundamental importance for humanity, such as the energy transition, the circular economy, air quality and new energy technologies, including renewable gas. To reinforce the concepts dealt with through the space flight, the school groups are then invited to participate in the game **The Circular Challenge**, on the circular economy and energy consumption.

To meet the eco-efficient goals of this mission, the Energy Challenge truck is fitted with a natural gaspowered twin engine that produces between 15% and 20% less CO_2 emissions than conventional diesel engines. Based on a dual system and fuel consumption of approximately 70% diesel and 30% compressed natural gas, the vehicle helps to improve air quality by reducing particulate emissions by 39% and NO_{X} emissions by 30% when compared with a diesel-only vehicle.







Route Energy Challenge 2020





Visits to Naturgy generation facilities

The Foundation's educational programme also includes activities to explain to the public in an informative, transparent way how Naturgy group facilities work. As part of this initiative, visits were organised to the hydroelectric plant and the Bolarque Museum, the Merengue wind farm (Extremadura), the Carpio photovoltaic plant (Castilla-La Mancha) and the Frieira hydroelectric plant (Galicia).

These visits, open to the educational community and the general public, help to raise awareness of the complex nature of power generation and distribution, and to publicise Naturgy's commitment to renewable energies.

Thanks to an agreement with the **Department of Culture, Education and Universities** of the Government of Galicia, in 2020 the Foundation has joined the EduTecEmprende programme, offering visits to companies and technology centres for 3rd and 4th year secondary school, sixth form and VET students. This initiative, part of the Government of Galicia's Entrepreneurship Plan, aims to motivate students and teach them a spirit of entrepreneurship, by familiarising them with their local business and technological environment. As guests of the Foundation, the students have visited the Cabo Vilano wind farm (A Coruña), the Vell hydroelectric plant in Ourense and the Tambre Plant in A Coruña.



Naturgy Foundation Annual Report **2020**

06 | Agreements

Agreements signed in 2020

In 2020 we maintained and developed the following institutional alliances:

- Bokatas Association
- Casa María Reina de la Paz Association
- Proyecto Confianza Association
- Cáritas Diocesana de Madrid
- Cáritas Española (2 agreements)
- College of Architects of Catalonia (COAC).
- Ministry of Education of the Principality of Asturias.
- Ministry of Education and Youth of the Autonomous Community of Madrid.
- Ministry of Education, Culture and Sports of the Government of Valencia.
- Ministry of Education, University and Vocational Training of the Government of Galicia.
- Spanish Red Cross (3 agreements)
- Eco House Argentina
- Foment Habitatge Social Foundation
- La Viña Foundation

- Mambré Foundation
- Roure Foundation
- DMSJ Foundation
- Spanish Foundation for Science and Technology (FECYT), of the Ministry of Science and Innovation.
 Members (Scientific Foundation of the Spanish Association Against Cancer + Fundación Eduardo Barreiros + Fundación Junior Achievement España)
- Exit Foundation
- Gil Gayarre Foundation
- Global Nature
- Habitat 3 Foundation (2 agreements)
- Isadora Duncan Foundation
- Quirón Foundation
- Metragaz
- University of Barcelona (2 agreements)

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