

ANNUAL REPORT

2021



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GOBIERNO VASCO

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JASANGARRITASUN
ETA INGURUMEN SAILA
DEPARTAMENTO DE DESARROLLO
ECONÓMICO, SOSTENIBILIDAD
Y MEDIO AMBIENTE

ENERGIAREN
EUSKAL ERAKUNDEA

ENTE VASCO
DE LA ENERGÍA



ENERGIAREN
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CHAIR'S LETTER



ARANTXA TAPIA OTAEGUI

Chair of Ente Vasco de la Energía

Following the exceptional circumstances arising out of the Covid-19 pandemic, we are gradually returning to normal, in line with health guidelines. The challenge of the energy transition remains, however, as we pursue the highly ambitious targets set by the Basque government to move towards a low-carbon energy system.

During 2021, the Basque Government's energy agency, Ente Vasco de la Energía, performed its functions against the backdrop of the year's turbulent events, which significantly impacted all areas of society, especially in the field of energy, with all the resulting challenges for economic and industrial development.



EVE stepped up its work in promoting and consolidating a range of projects and granting aid packages aimed at meeting the goals of the energy transition, as well as helping to overcome the difficult current circumstances.

The course set by the Basque Energy Strategy remains unchanged by the difficulties, as we implement the roadmap for the move towards a new energy model, with the backing of Basque society, which is very conscious of the need for sustainable development. For all of these reasons, EVE continues to promote and consolidate an energy model based on renewables and energy efficiency, through a wide range of actions. New regulatory frameworks, such as the Basque Energy Transition and Climate Change Act, provide tools and instruments that will contribute to meeting these objectives.



EVE's participation in investment facilitation companies is clear evidence of its active and responsible involvement and position-taking in the industry. The group continues to expand its involvement in all areas of the development of renewable sources, including biomass, wind, geothermal, marine and solar photovoltaic energy. In the field of energy efficiency, it is working for full development of sustainable electric mobility, participating in pioneering schemes, including the Basque Hydrogen Strategy, projects for the development of renewable gases and sustainable public administration.

Actions that might, not too long ago, have been seen as belonging to the distant future, are now fully implemented; it is a clear indicator of the progress and forward-thinking required to ensure the stability of the Basque energy industry. The sector has a major influence on all areas of society, both industrial and economic, as well as on the quality of life of all citizens.







STRATEGY AND ORGANISATION

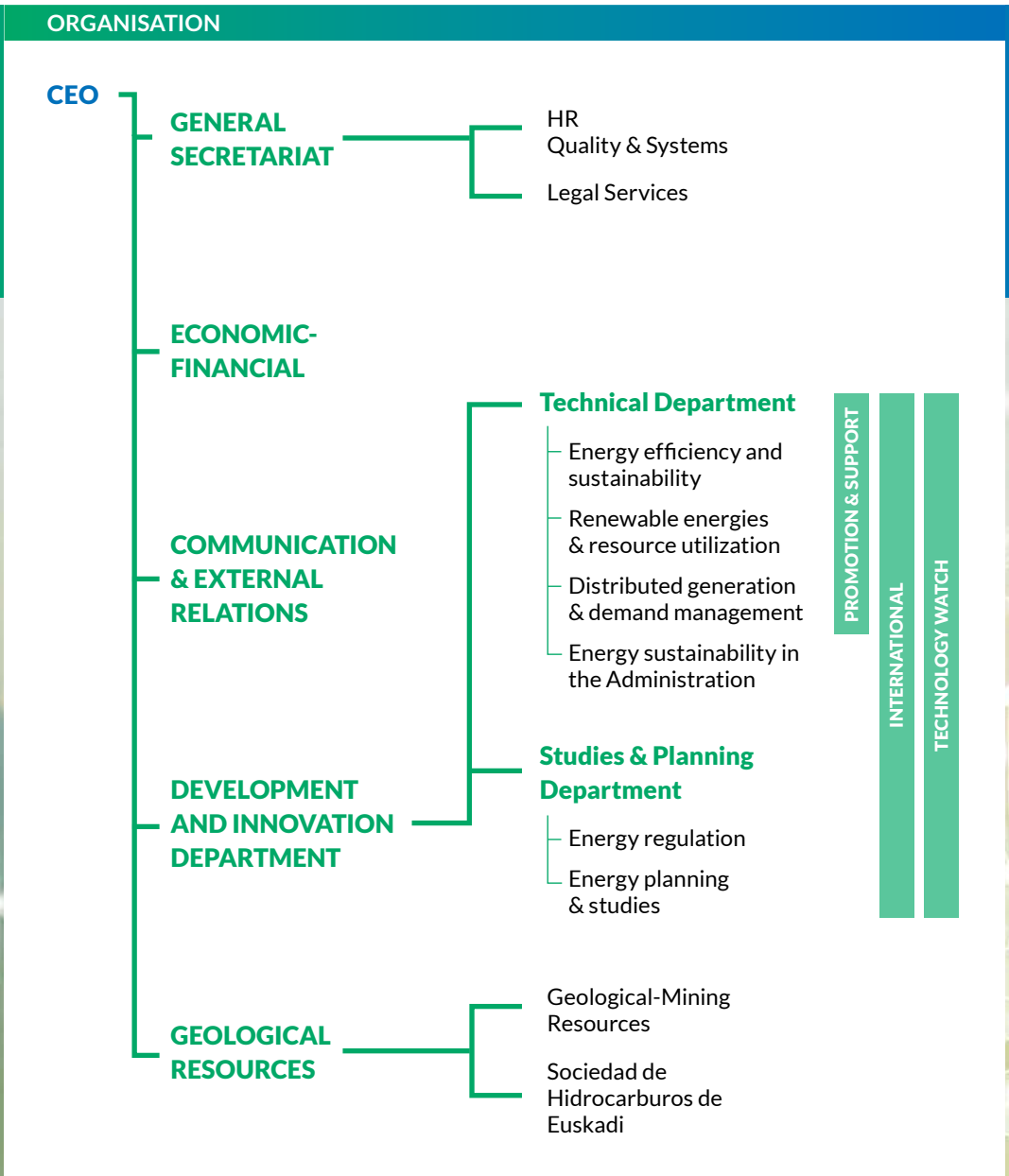


The Basque Energy Agency (Energiaren Euskal Erakundea/Ente Vasco de la Energía) was created by an act of the Basque Parliament of 24 November 1982. For nearly 40 years, it has been working to plan, coordinate and monitor energy-related actions in the Basque public sector. As well as these conventional energy agency functions, it has also taken an active part in a large number of projects in the energy industry and other synergic sectors, following the directives of the Basque Government.

Throughout this long period, EVE has brought ever greater dedication and commitment to the areas of energy efficiency and diversification, the guiding principles that inform all of its actions. It has extended aid programmes to promote energy saving and efficiency and renewable energy projects and acquired holdings in strategically important companies. Here it plays an institutional role, bringing stability and balance to these projects.

Given the events of recent years, the future is becoming ever more uncertain and ever harder to predict; in this context, it is difficult to plan not only for the energy industry, but also for the global geostrategic chessboard more widely. Mechanisms need to be established that can provide some degree of surety within that uncertainty – a task that is further complicated by constant technological, regulatory and market changes.

In this context, one of the key factors of any organisational model will be its capacity for adaptation; this is also true of the way we manage our processes, which will be marked by the digital transformation and the reinforcement of our systems of collaboration, both



internally and with other organisations. This is the context in which EVE is developing its strategic model for the future, adapting to its own demographic and organisational dynamics and responding proactively to new and changing situations in the world of energy.

To address these needs, the Basque Energy Strategy sets out the targets and lines of action in the field of energy policy. The current strategy –the ‘3E2030’– sets out a long-term vision of an increasingly low-carbon energy system that is sustainable, both in terms of competitiveness and supply security. In addition, these developments will have to be tackled against the backdrop of a generational hand-over within the organisation, especially in key positions.



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Mr Iván Martín Uliarte****

Ms Covadonga Coca Ramos****

Ms Tamara Yagüe Martínez****

* Resignation: Decree 206/2021 of 14 September.

** Appointment: Decree 206/2021 of 14 September.

*** Resignation: Decree 178/2021 of 13 July.

MANAGEMENT COMMITTEE

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DIRECTOR, STUDIES & PLANNING

Mr José Luis Sáenz de Ormijana Fulgencio

DIRECTOR, GEOLOGICAL RESOURCES

Mr Luis Muñoz Jiménez

**** Appointment: Decree 178/2021 of 13 July.

***** On extended leave of absence since 7 September 2021.



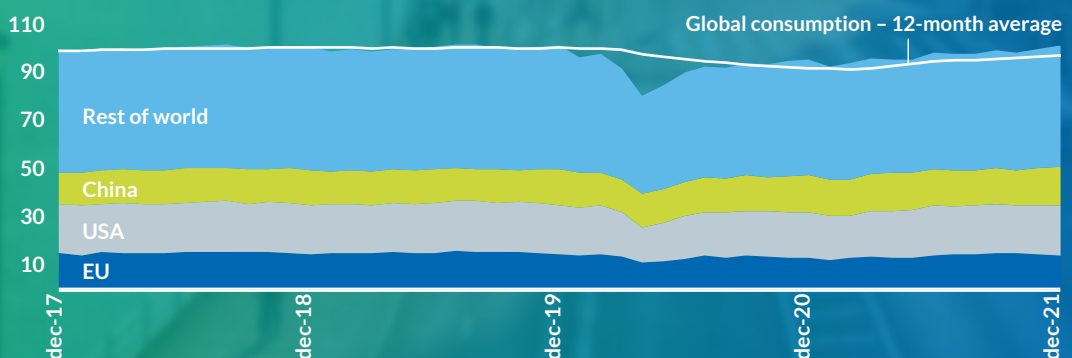
ENERGY CONTEXT 2021



Solar photovoltaic deployment advances worldwide.

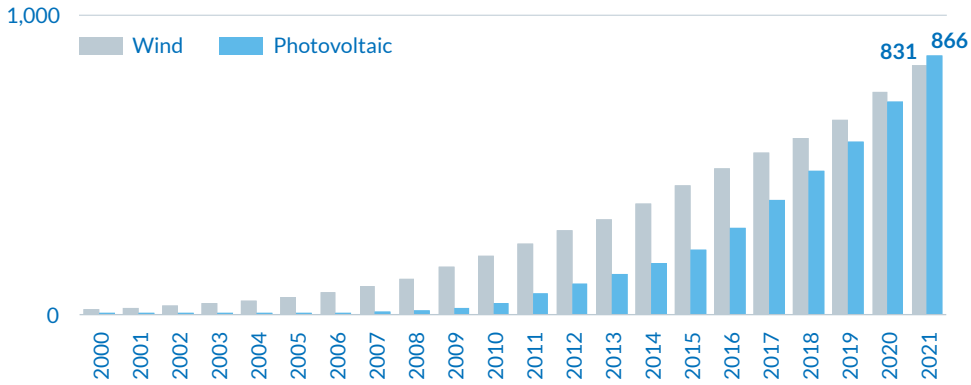
Global oil consumption rose to 101 million barrels per day (Mbpd) in 2021, 6% up on the figure for the previous year (92 Mbpd). During the same period, China's consumption rose by 2% to 16 Mbpd, Europe's by 7% to 14 Mbpd and the United States' by 9% to 20.5 Mbpd. Brent crude averaged just over \$66 a barrel. This was a sharp rise following the decline in prices in 2020 due to restrictions on mobility caused by the Covid-19 pandemic.

AGGREGATE GLOBAL OIL CONSUMPTION. Mbpd/MONTH



Provisional figures show that at a global level, renewable energies continued to perform well in 2021, with growth in wind power and photovoltaics. Installed wind power capacity rose to a cumulative total of 831 GW, 88 GW up on 2020. The year also saw exponential growth in photovoltaic power, with 156 GW, giving a cumulative capacity of 866 GW. Thus, in just 6 years, cumulative installed photovoltaic capacity has overtaken global wind power capacity.

GLOBAL INSTALLED WIND AND PHOTOVOLTAIC CAPACITY. GW



Source: International Renewable Energy Agency (IRENA) and Global Wind Energy Council (GWEC)



INCREASE IN ENERGY CONSUMPTION IN THE BASQUE COUNTRY

Electricity consumption

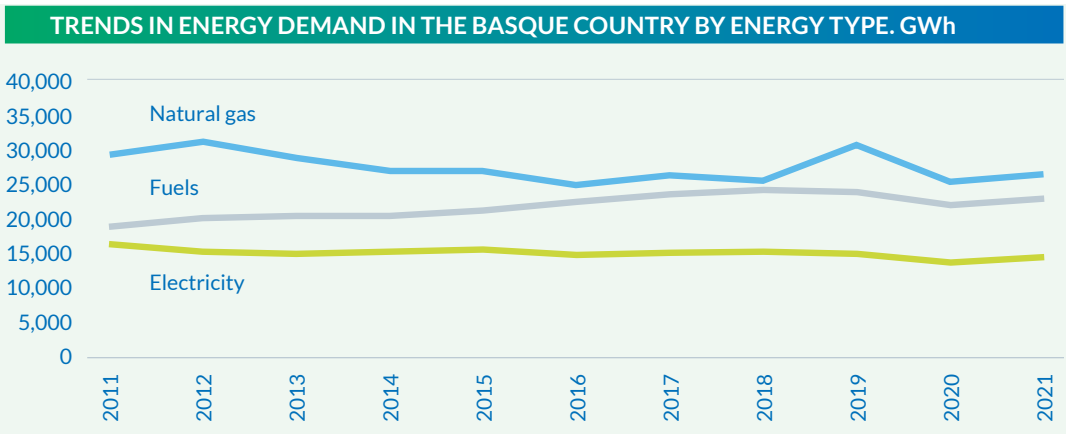
Electricity consumption in the Basque Country came to 14,520 GWh in 2021, up 6.2% on the previous year, although still 3% below the figure for 2019, prior to the pandemic and 12% below that for 2011. Some sectors recovered their share of electricity consumption of pre-crisis years, including the service sector (accounting for 22%) and the residential sector (17%). The industrial sector gained two percentage points on its pre-pandemic level, to account for 55% of Basque electricity consumption, while the energy sector dropped 2 points to 4.4%. Within the industrial sector, iron and steel and foundry increased by 27%. In the buildings sector, where consumption was up by 1% in 2021, the greatest increases were in the hospitality sector (9%), trade and services (4.6%) and public administration (2.5%). Residential consumption, in contrast, was down 2.2% on 2020 levels.

Natural gas demand

Natural gas consumption increased to 26,650 GWh, 4.4% up on the previous year, largely as a result of greater consumption for conventional uses (industry and buildings) and power generation. Like electricity, conventional consumption (excluding the power sector) has yet to return to pre-pandemic values.

Fuel consumption

Petrol and diesel consumption in the Basque Country was up 4.5% in 2021. The figure, which had risen continuously since 2012, experienced a slight fall in 2019, further intensified in 2020 by the Covid-19 pandemic. Consumption for 2021 was still 4% below 2019 values. Particularly noteworthy is the low usage of aviation kerosene (JET-A) which, pending final year-end data, remains 58% below 2019.



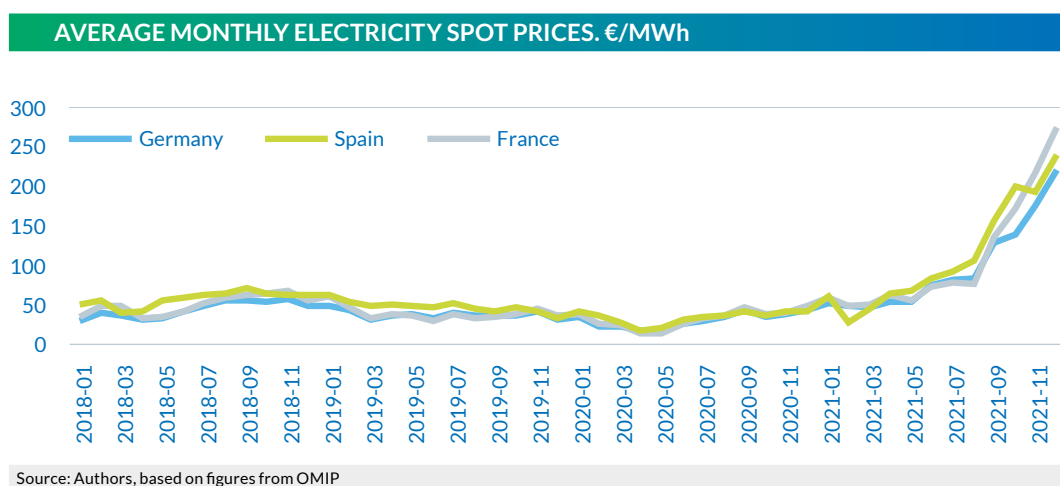
Source: EVE - Provisional energy figures 2021



MAJOR INCREASE IN ENERGY PRICES IN 2021, ESPECIALLY IN THE SECOND HALF OF THE YEAR

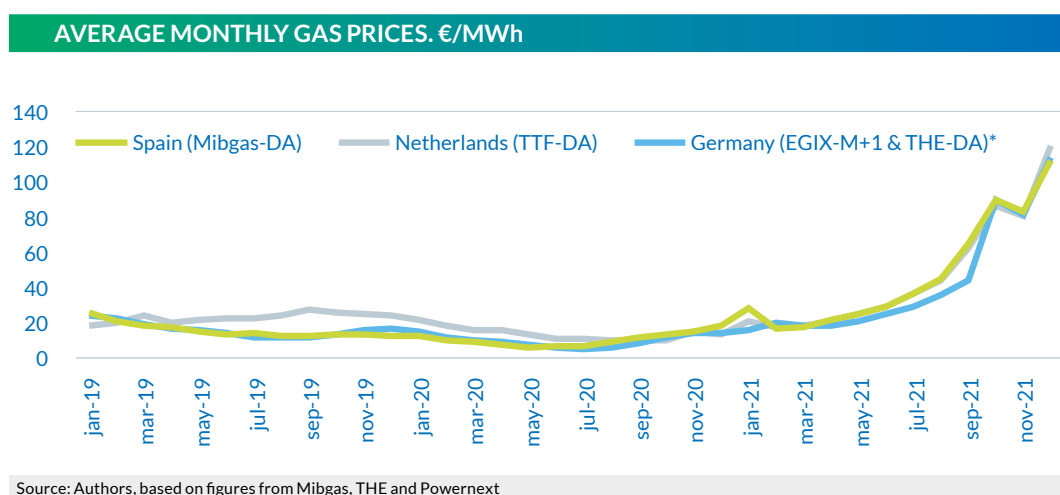
Electricity prices

In 2021, the average annual spot price of electricity in Spain was €111/MWh, up 228% on 2020. The month of December saw the largest increase since the free market was first established, to €221/MWh. In this regard, the trend was similar to that of countries such as France and Germany, which had annual average prices of €108/MWh and €96/MWh, respectively.

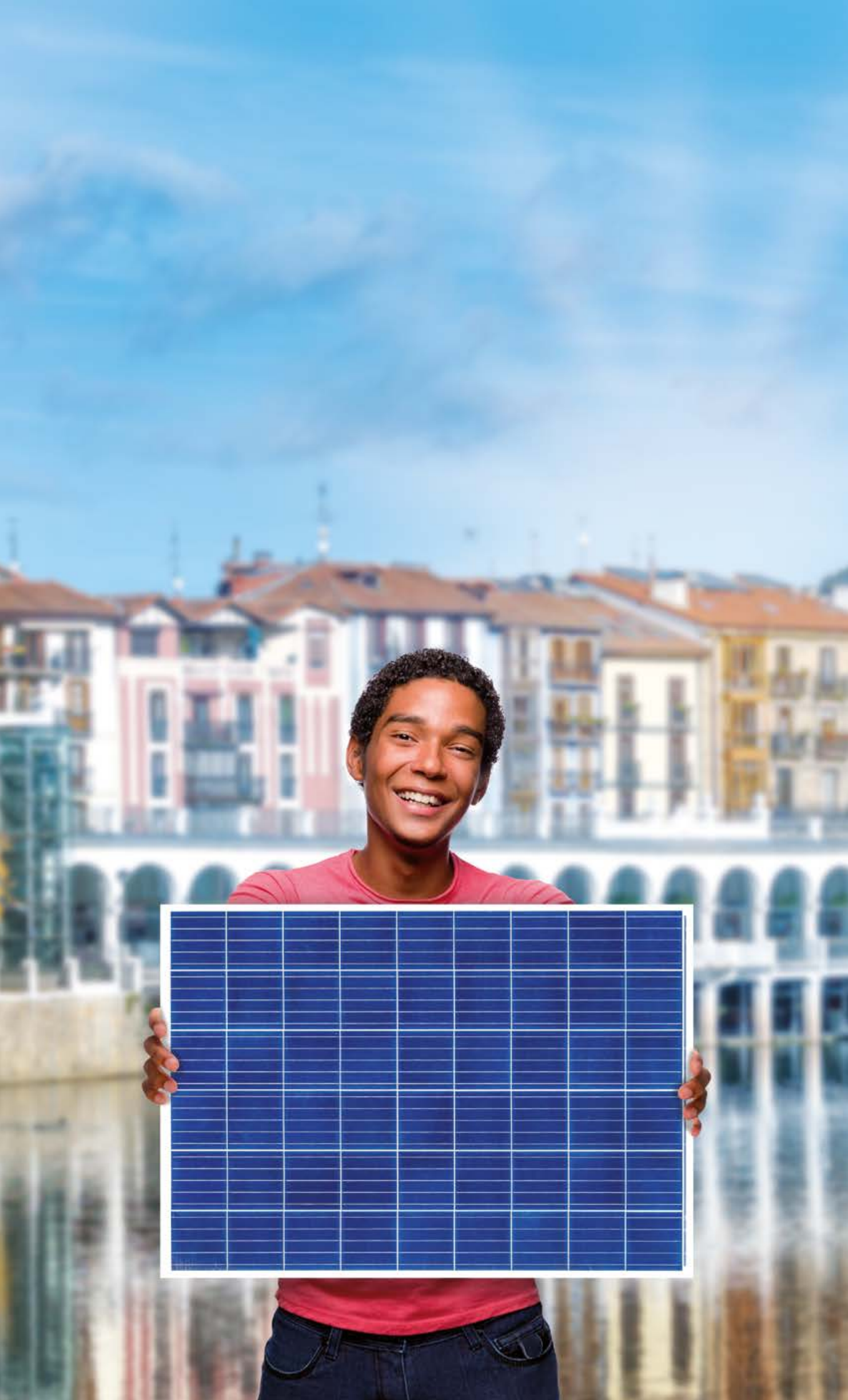


Gas prices

During the year, the average annual gas price in Spain came to €47.3/MWh, 244% higher than in 2020. The maximum monthly price was attained in December, when it reached €112/MWh. The trend was similar in both the Netherlands (TTF), the main European gas market, and in Germany (THE), which saw annual average prices of €46.6 and €42.5 per MWh, respectively.



* The gas price in Germany for January 19 to September 2021 is based on the EGIX M+1 index and from October 2021 to December 2021 on the Trading Hub Europe index (THE DA).



TECHNICAL DEPARTMENT



STRATEGIC FRAMEWORK

Throughout 2021, Ente Vasco de la Energía, working with Ihobe, drew up the **Legislature Plan for Energy Transition and Climate Change 2021-2024**, which was approved at a Basque Government cabinet meeting in October 2021.

EVE is also involved in the development of strategic and territorial plans. These include:

The **Basque Hydrogen Strategy**, submitted in June 2021, which sets out the strategic position of the Basque Country and its industrial fabric as well as opportunities in areas of energy, the environment and industrial and technological development.

The **Basque Transport Electrification Strategy**, currently pending approval.

The **Territorial Sectorial Plan for Renewable Energy in the Basque Country (TSP-RE)**. The Preview Document and Initial Strategic Document have been prepared and the stakeholder and public participation phases have now been completed.

ENERGY EFFICIENCY AND SUSTAINABILITY

Natural gas

Throughout the year, EVE continued to work actively with agents from the sector to increase service-station availability of natural gas as an alternative road transport fuel. With the opening of the gas station in Oiartzun (Gipuzkoa), there are now seven service stations offering compressed natural gas in the Basque Country and five providing liquefied natural gas.

In the field of marine natural gas, modification of the toll structure for access to regasification terminals makes ship-to-ship bunkering operations economically competitive.

Hydrogen

During the year, the Basque Hydrogen Strategy to 2030 was presented. The strategy aims to promote the creation of a hydrogen production, distribution and consumption ecosystem in the Basque Country, in keeping with the following guidelines:

To create a robust and sustainable local market, through renewable and low-carbon hydrogen production and stimulating domestic demand.

To make hydrogen a viable decarbonisation tool for Basque industry and other hard-to-decarbonise energy consumption sectors, such as transport.

To deploy a storage, transportation and distribution infrastructure to support the development of the local market, and to provide the basis for the establishment of a future logistics centre for international hydrogen trade.

To stimulate training, R&D and industrial development, in order to position the Basque Country as a technology exporter.

The Asociación del Corredor Vasco del Hidrógeno (Basque Hydrogen Corridor Association), formed this year, has 71 members including private companies, educational and research centres and the public administration. They are developing around 40 projects across the hydrogen value chain.

Electric transport

In the area of electric mobility, work continued on promoting the purchase of electric vehicles and developing charging infrastructure. A guide was distributed at seminars targeting the business community explaining how to draw up a plan for transportation to business centres. In addition, training sessions were held for vehicle point-of-sale personnel to provide information on the electric ecosystem.

Building energy rating certificate

During the year, EVE provided technical support to the Basque Government in the area of Energy Efficiency Certification of Buildings, leading to the issuing of 21,752 registered certifications with the following energy ratings:

RATING					
	ARABA/ÁLAVA	GIPUZKOA	BIZKAIA	TOTAL NUMBER	TOTAL (%)
A	186	165	206	557	2.6
B	45	90	133	268	1.2
C	44	72	66	182	0.8
D	325	524	711	1,560	7.2
E	1,627	3,196	4,729	9,552	43.9
F	425	1,311	1,739	3,475	16.0
G	379	1,641	4,138	6,158	28.3
TOTAL	3,031	6,999	11,722	21,752	100.0

VALIDATION OF EPC BY PROVINCES



In addition, the service answered 3,711 queries on the Technical Building Code (TBC), the Regulation on Thermal Installations in Buildings (RTIB), and the functioning of the Certificate Registration app itself.

RENEWABLE ENERGY AND USE OF RESOURCES

Biomass

Heat network project in the Coronación district (Vitoria-Gasteiz)

Construction completed of a forest biomass facility for heat production and distribution. By the end of 2021, over 300 homes were connected to the network.

Agricultural biomass pilot project in Rioja Alavesa

A project for harnessing biomass energy from grapevine pruning is currently under study.

Bioargi Project

A biomass electricity production facility is under analysis and is expected to be eligible for the next renewable energy auctions.

Biomethane Projects

A biomethanisation project for producing biogas/biomethane from brown-bin organic matter and agri-food and livestock waste is under study.

Wind energy

Aixeindar (CADEM-Iberdrola)

The following locations for installation of wind farms are currently undergoing technical analysis and environmental authorisation: Azaceta, Labraza, Arlabán and Laminoria.

BiMEP project

- Submissions on the Maritime Space Management Plans (MSMPs), and study of a possible enlargement of BiMEP and the installation of a demonstration offshore wind farm.
- Promotion with technology companies to attract trials to BiMEP.



Geothermal

ATELIER Project (AmSTERdam BiLbao citizen drivEn smaRt cities)

Development of a geothermal infrastructure for the Zorrozaurre area, where work has begun on one of the three pilot projects. Extension of the project to the entire island is currently under study.

Hydrothermal and geothermal studies in Bermeo and the Lamiaran WWTP.

Studies for promotion of geothermal and hydrothermal technologies in the industrial and service sectors.

Marine energy

BiMEP project

- Finnish company Wello Oy's wave energy device installed and grid-connected in July 2021 for a two-year period.
- Contract signed with Marine Power Systems for its wave energy converter to be tested at the infrastructure during 2022-2023.

Mutriku Project

- By December 2021, the wave energy plant had an accumulated power output of 2.5 GWh.
- Preliminary market consultation initiated for Innovative Public Procurement (IPP) of new oscillating water column turbines for the plant.

EuropeWave Project

Pre-commercial Public Procurement (PPP) of wave energy harvesting devices in collaboration with the Scottish agency WES and the European marine energy network, Ocean Energy Europe (OEE). Launched in January 2021 with an anticipated duration of over 5 years.



Use of resources

The Basque Energy Agency has a total of 347 renewable power plants. Overall, production in 2021 came to 33,989 MWh. Annual generation from thermal facilities came to 1,054 MWh.

ELECTRICITY PRODUCTION IN 2021

ELECTRICAL PRODUCTION FACILITIES		ACCUMULATED ANNUAL
Landfill biogas (1 plant)	MWh	4,041
Photovoltaic (338 plants)	MWh	6,413
Small hydro (7 plants)	MWh	23,245
Wave energy (1 plant)	MWh	290
TOTAL	MWh	33,989

DISTRIBUTION OF POWER PRODUCTION IN 2021



THERMAL PRODUCTION IN 2021

THERMAL PRODUCTION FACILITIES		ACCUMULATED ANNUAL
Solar thermal	MWh	180
Geoexchange	MWh	701
Biomass	MWh	173
TOTAL	MWh	1,054

DISTRIBUTION OF THERMAL PRODUCTION IN 2021



DISTRIBUTED GENERATION AND DEMAND MANAGEMENT

The publication in 2019 of Decree 244/2019 (which regulates the administrative, technical and economic conditions for self-consumption) marked a turning point for renewable electricity self-consumption in the Basque Country.

Since then, there has been a very significant growth in self-consumption with 18.3 MW installed in 2021. The industrial sector has had a particularly significant impact with higher-power facilities, compared to the large number of lower-power installations in the residential sector, all backed by aid programmes and a favourable regulatory framework.

Key photovoltaic projects

EKIAN

During 2021, the 24 MW photovoltaic power project in Ribera Baja (Araba), opened in 2020, achieved regular and sustained operation, generating 35.8 GWh. Ente Vasco de la Energía –through CADEM– has a final stake of 4.167% in the business, equivalent to ownership of 1 MW of the plant's total output.

EKIENEA

Public-private partnership for the construction and operation of a solar photovoltaic facility in Armiñón (Álava/Araba) with a capacity of 125 MWp, which will require investment of close to €90 million. Joint-owned by Eólicas de Euskadi, S.A. (Iberdrola Group) (75%), CADEM-EVE (18%), LKS Energy Berri, S.L. (5%) and the Provincial Government of Álava, through its company Enargi Araba, S.A. (2%).

During 2021, various engineering works were completed, and applications were submitted for the necessary permits.



EKIOLA

Following the formation of the public-private company Ekiola, in which the Ente Vasco de la Energía and KREAN both have a stake (25% and 75% respectively), the first cooperatives were launched during the year to develop citizen energy communities that will generate photovoltaic energy for consumption by cooperative members:



Azpeitiako Ekiola (Azpeitia Ekindar, Soc.Coop.), incorporated on 13 April 2021.

Zumaiako Ekiola (Egutera Soc. Coop.), incorporated on 28 May 2021.

Donostiako Ekiola Soc. Coop., incorporated on 9 June 2021.

Aiarako Ekiola Soc. Coop., incorporated on 6 July 2021.

Añanako Ekiola Soc. Coop., incorporated on 6 July 2021.

Arabako Errioxako Ekiola Soc. Coop., incorporated on 6 July 2021.

Arabako Mendialdeko Ekiola Soc. Coop., incorporated on 6 July 2021.

Arabako Lautadako Ekiola Soc. Coop., incorporated on 6 July 2021.

Gorbeialdeko Ekiola Soc. Coop., incorporated on 6 July 2021.

Leintz Baiarako Ekiola Soc. Coop., incorporated on 15 October 2021.

BEC SOLAR

The publicly owned company BEC Solar, owned by CADEM (50%) and BEC (50%), plans to install 900 kW of solar energy on the roof of the exhibition centre. During 2021, the basic project was prepared, and the bidding documents drafted.





Self-consumption projects: advice to public authorities

Analysis to detect projects for self-consumption facilities in publicly owned buildings:

Advice on determining the potential for photovoltaic solar energy self-consumption in buildings owned by the Basque Government, public-sector companies and other tiers of government: Basurto Hospital, Ports and EKP, SPRI, Ihobe, Technology Parks, Vitoria-Gasteiz City Council and the Euskalduna Concert and Conference Hall.

Analysis for adaptation of photovoltaic facilities owned by EVE and other agents, with a view to enabling self-consumption.

Digitalisation of the energy industry

Bidegas project for digitalisation of the natural gas distribution network in the Basque Country, with the company Nortegas in Ugao-Miraballes. 1,000 natural gas meters have been replaced by smart meters. In addition, as part of Phase II of Bidegas, a further 800 meters were replaced in the municipality of Alonsotegi.

Demand management and electric mobility

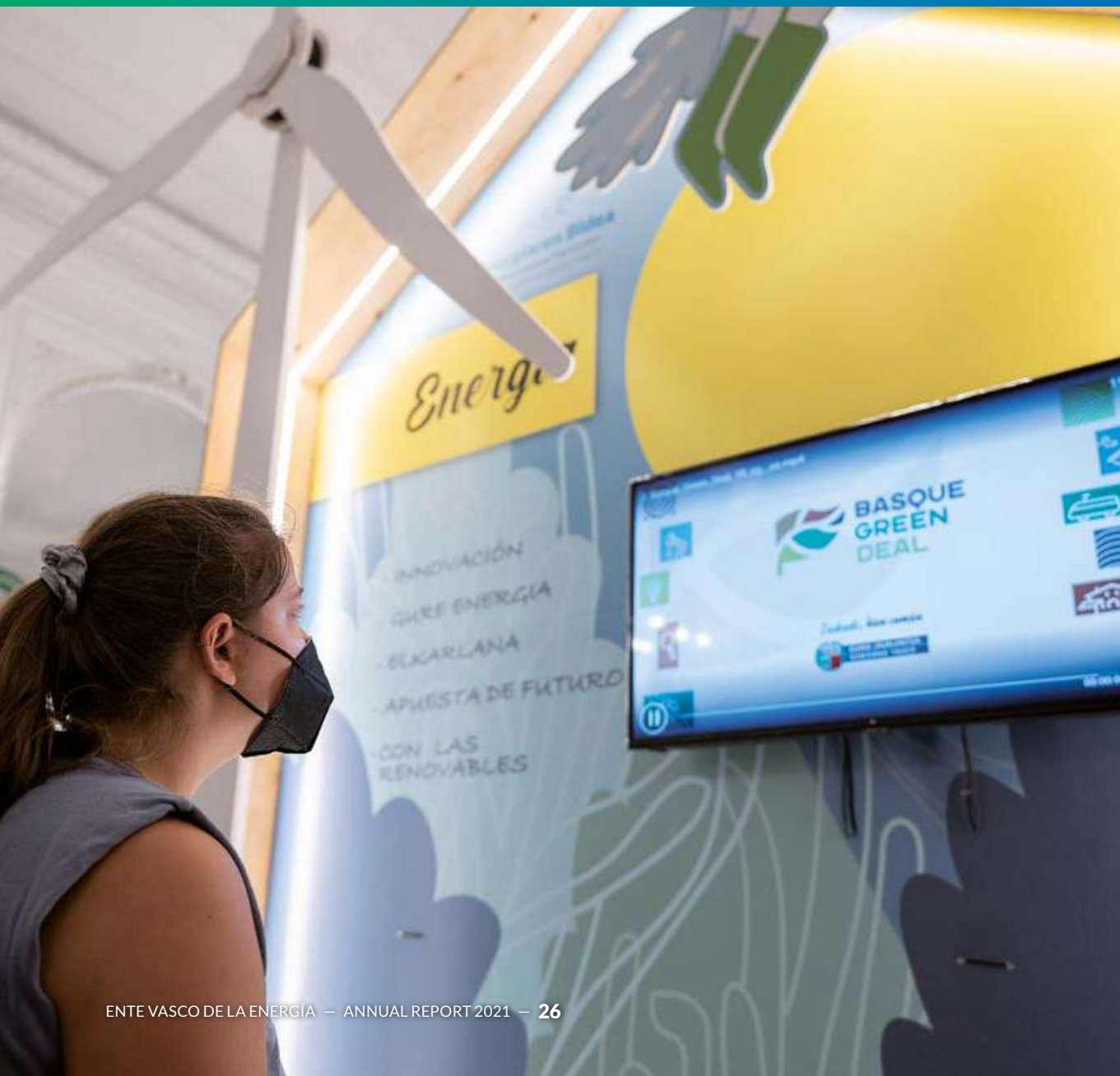
Feasibility study of projects for smart-charging systems for electric vehicles linked to railway infrastructures.

ENERGY SUSTAINABILITY IN THE PUBLIC ADMINISTRATION

The Basque Energy Sustainability Act (Ley 4/2019) sets the regulatory bases for energy sustainability among public administrations. EVE works with the Basque Government and Provincial Governments and local administrations to fulfil the requirements of the act.

In 2021, audits were carried out on several buildings in the fields of education, environment, health, culture, housing, the University of the Basque Country, Industrialdeak, Ports, EKP and EJIE. Audits have also begun on 14 hospitals and health centres owned by the Basque Health Service (Osakidetza). Since 2018, 522 government buildings have been audited, with funding from the ELENA programme, managed by the European Investment Bank and the European Commission. In addition, EVE manages a database of the energy consumption of the entire Basque Government.

An advisory and support service is also provided to Basque municipalities working to apply the Energy Sustainability Act, as well as signatories to the Covenant of Mayors and Udalsarea 2030.



AID PROGRAMMES

During 2021, seven aid schemes were published:

Three aid schemes in energy efficiency targeted at specific sectors: two programmes for actions in the transport sector and a specific programme for existing buildings in municipalities with demographic challenges (PREE 5000).

In addition, two budget extensions were managed for the PREE Programme, published in 2020, with a total budget of nearly €60 million.

Two support schemes for renewable energies: marine energies and self-consumption, storage (with renewable sources) and thermal renewable systems in the residential sector.

Two aid schemes for Energy Sustainability of the Basque Autonomous Community aimed at local entities, under the aegis of Act 4/2019, of 21 February 2019.

The programmes published in 2019 and 2020 –which were extended until mid-2021 due to the COVID-19 pandemic– (MOVES II, aid to the industrial sector and other EVE programmes) continued.

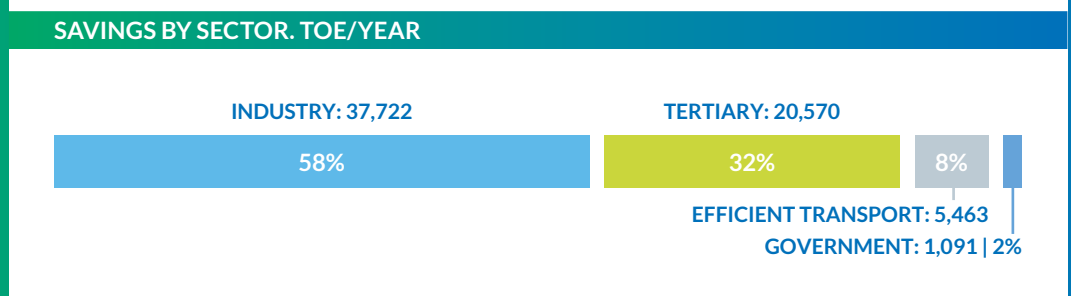
A total budget of €119.5* million was managed and nearly 8,000 applications were received.

* Given the pluri-annual nature of the actions in question, for accounting purposes this amount has been recorded across several financial years.

The main results of the aid programmes now completed were as follows:

WITHIN THE AREA OF ENERGY EFFICIENCY (RATIONAL USE OF ENERGY)					
PROGRAMME	TOTAL AID (IN €)	APPLICATIONS RECEIVED	APPLICATIONS APPROVED	INDUCED INVESTMENT (€M)	SAVINGS TOE/YEAR
Industry	21,600,000	282	211	157.7	37,722
Tertiary sector	2,300,000	400	275	22.0	3,800
Local Administration	750,000	150	114	9.4	1,100
Efficient transport and mobility	1,000,000	480	230	12.0	5,000
Vehicle Renewal Plan	2,000,000	1,200	1,000	19.0	375
MOVES II	3,000,000	1,500	800	37.0	250
Energy rehabilitation of buildings (PREE)	58,000,000	800	500	167.2	16,700

Total savings in all aid programmes targeting energy efficiency were in excess of 21,949.6 toe/year. The breakdown is shown in the graph below:

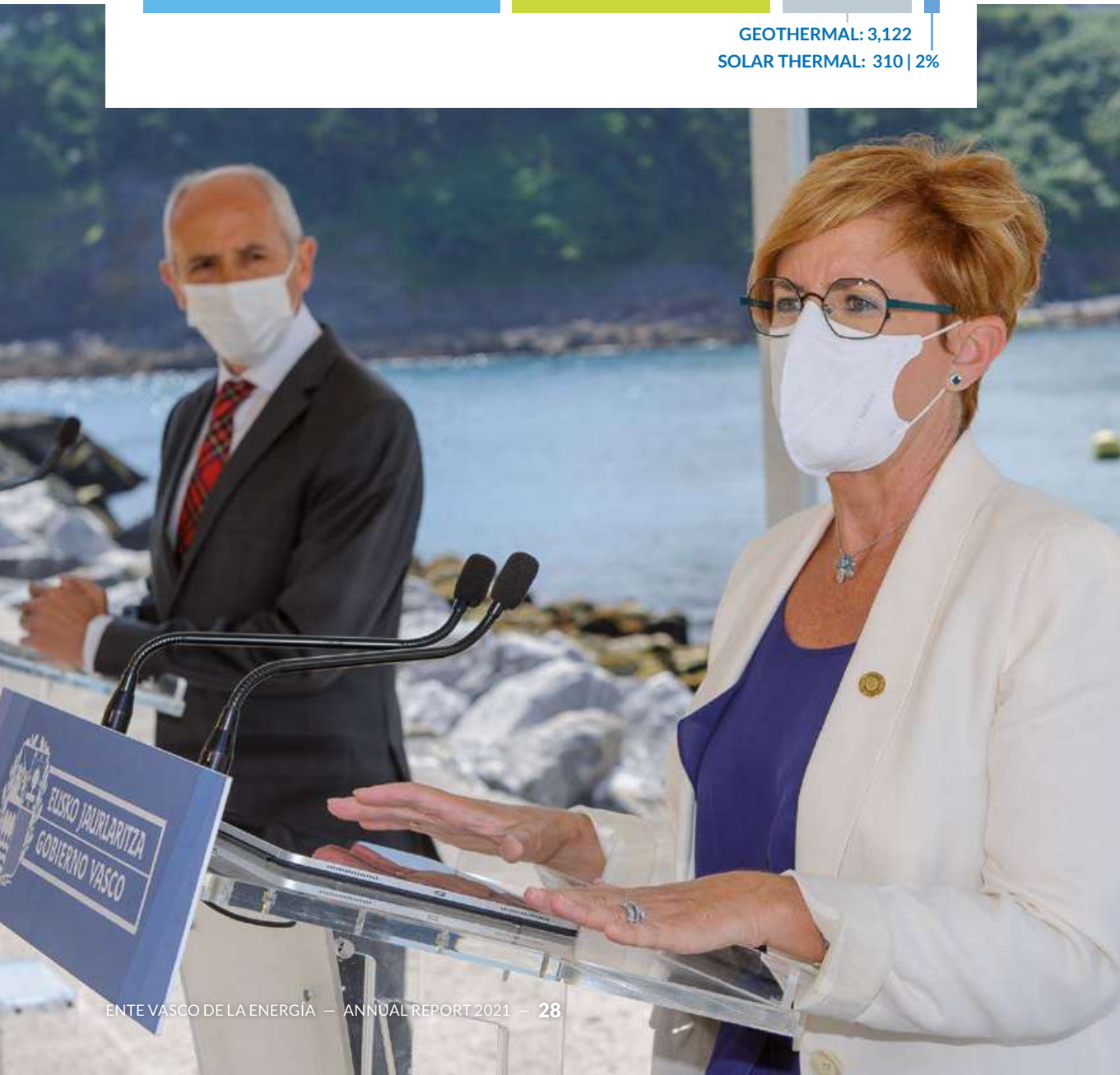
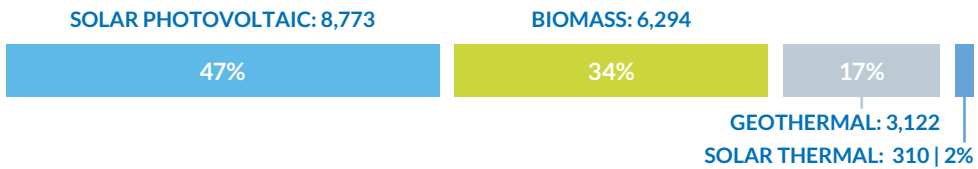


IN THE FIELD OF RENEWABLE ENERGIES

PROGRAMME	TOTAL AID (IN €)	APPLICATIONS RECEIVED	APPLICATIONS APPROVED	INDUCED INVESTMENT (€M)	INSTALLED CAPACITY
Biomass	660,000	190	121	8.3	6,294 kW
Geothermal	550,000	226	88	43.0	3,122 kW
Renewable electrical installations	4,300,000	1,850	975	46.9	8,773 kW
Marine energy (multiannual)		2	2	1.5	

In conjunction, the renewable energy projects will prevent consumption of over 10,185 toe of conventional energy. At the same time, over 18,499 new kW of renewable energies will come online, as shown in the graph below.

INSTALLED CAPACITY. kW



INTERNATIONAL

The aim of the international area is to facilitate EVE's participation in collaboration projects with a range of European agents through funding from the European Commission, in order to obtain knowledge and funding for strategic projects for the Basque Country. During the year, a new proposal was submitted to the Horizon Europe programme.

IN 2021, EVE PARTICIPATED IN THE FOLLOWING EUROPEAN PROJECTS

PROGRAMME	PROJECT	AREA	SHORT DESCRIPTION	EU GRANT	END
H2020	MARINET 2	Marine	Access to for technology developers to the test site at the Mutriku OWC facility.	€103,000	Dec-21
H2020	OCEANERANET COFUND	Marine	Continuation of OCEANERANET. Coordination of aid programmes for ocean energy.	€799,000	Jun-22
H2020	SmartenCity	Urban regeneration	Support for regeneration of the Coronación neighbourhood of Vitoria-Gasteiz.	€51,000	Jan-22
H2020	EuroPACE	EE in building	Involvement in adapting the PACE financial instrument (support for energy renovation in buildings) to the Basque Country.	€164,000	Aug-21
ELENA	CODESO	EE in public authorities	Support to the Basque Government on improvements in energy efficiency of its buildings.	€1,400,000	Dec-21
H2020	OCEANSET	RE	Support for implementation of the SET-PLAN for marine energy.	€24,500	Feb-22
H2020	RELaTED	EE in building	Support to the Basque Government's security department in a demonstration project of a low-temperature heating network.	€162,000	Jun-22
H2020	HIROSS4all	EE in building	Programme for support in building refurbishment.	€170,000	Oct-22
H2020	ATELIER	Renewable Energy	Support for the Zorrozaurre demonstration project (Bilbao).	€316,000	Oct-24
LIFE	URBANKLIMA 2050	Renewable Energy	Support for implementation of the Basque Strategy on Climate Change 2050.	€1,095,000	Dec-25
H2020	EUROPEWAVE	Renewable Energy	Pre-commercial public procurement of marine energy technologies.	€6,800,000	Apr-26



STUDIES AND PLANNING



STUDIES AND INFORMATION

Throughout 2021, EVE undertook a number of studies, covering areas such as transport and mobility, the potential for hydrogen use, energy prices, and a comparison between energy indicators in the Basque Country and elsewhere in Europe. Other studies included an analysis of European energy balances, comparisons of energy prices, energy certification for buildings and several regulatory analyses.

EVE publishes annual energy statistics, updated historical series and annual energy balance sheets for the Basque Country. It also produces an analysis of the distribution of municipal energy consumption, a study of trends in carbon emissions in energy and an annual compilation of energy statistics in the Basque Country (*Euskadi Energía*). Monthly newsletters are issued on the energy situation in the Basque Country and external benchmarks. In addition, special thematic analyses are included to provide additional information on the energy situation in key economic sectors for the Basque Country.



BASQUE ENERGY STRATEGY 2030

In 2016, the Basque government approved the Basque Energy Strategy for the period 2016-2030 (3E2030), following completion of all relevant procedures and formalities, including a strategic environmental assessment and a public consultation stage. An assessment was also made of actions carried out during the period 2016–2020. Progress during the period was in line with forecasts in the area of energy efficiency and well above target in renewables. 2020 saw a reduction in oil consumption in transport, although it remains to be seen whether this was a temporary development resulting from restrictions on mobility during the pandemic or whether it marks the start of a longer-lasting trend. Overall, accumulated progress at the end of 2020 stood at 29%, ahead of the annual target.

REGULATION

During 2021, Basque energy and environmental policy was reflected in the beginning of procedures for drawing up the Basque Energy Transition and Climate Change Act. The new law will establish the legal framework for achieving carbon neutrality by 2050 and will mark a move towards a more climate-resilient territory, by creating the mechanisms and bodies for inter-institutional coordination on climate change.

In the area of energy regulation, attempts were made by the Spanish government to reduce the impact of high electricity market prices on consumers. Several emergency measures were introduced, including a draft bill to act on remuneration for carbon emissions avoided by the electricity market and Royal Decree Law 17/2021, establishing the mechanism for reducing excess remuneration due to high gas prices, subsequently amended by Royal Decree Law 23/2021.

Ambitious regulations have been published aimed at achieving energy transition and meeting long-term environmental targets. The most significant was the Climate Change and Energy Transition Act (Act 7/2021), which seeks to copper-fasten the commitment to the Paris Agreement target of achieving climate neutrality by 2050.

Also approved during the year were the Energy Storage Strategy, the Hydrogen Roadmap, the Self-Consumption Roadmap and the Roadmap for the Development of Offshore Wind and Marine Energy.

The European Commission adopted a package of proposals called Fit-for-55 to ensure that EU climate, energy, land use, transport and taxation policies are in line with the goal of reducing net greenhouse gas emissions by at least 55% by 2030 (compared to 1990 levels). In this way, the Commission is introducing the legislative tools to meet the targets agreed in the European Climate Law, and to make the Union climate neutral by 2050.







GEOLOGICAL RESOURCES



The main mission of the Geological Resources Area is to identify surface and underground geological resources in the Basque Country. This includes oil & gas exploration and production, performed through Sociedad de Hidrocarburos de Euskadi, S.A. (SHESA), and geological/mining investigation, through the Department of Geological and Mining Resources.



OIL AND GAS EXPLORATION AND PRODUCTION (SHESA)

Sociedad de Hidrocarburos de Euskadi has maintained its participation in research and production projects in the Basque-Cantabrian Basin and surrounding areas. However, with the passing of the 2021 Climate Change and Energy Transition Act (Ley de Cambio Climático y Transición Energética, or LCCYTE, 7/2021), which prevents future oil and gas research and exploitation, its operations are now divided into two distinct periods of activity.

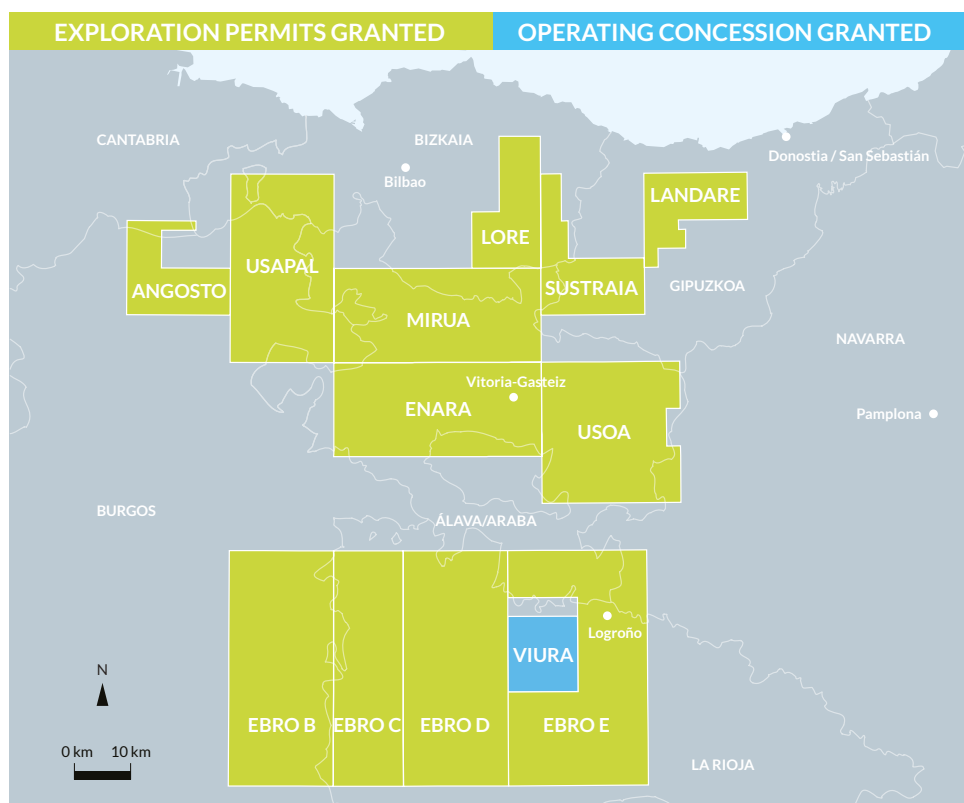
Participation in Exploration Permits

SHESA currently has holdings in the following exploration permits and/or operating concessions:

Angosto-1

The permit is jointly owned by Sociedad de Hidrocarburos de Euskadi, Petrichor Euskadi Coöperatief UA, (Sucursal en España) and Cambria Europe, Inc. (Sucursal en España). In July 2016, following the

Basque Government's announcement of its decision not to use hydraulic fracturing, an application was submitted to the Ministry of Industry, Energy and Tourism (MINETUR) for expiry of the period of the permit, which is still awaiting resolution.



Viura Operating Concession

This administrative concession has not been affected by the new law.

The Viura Operating Concession was granted on 25 July 2017, allowing commercial operation of the natural gas field discovered in 2010 in Sotés (La Rioja), in which SHESA has a 37.69% holding.

In 2021, the Viura field produced 31 million Nm³ of gas. Accumulated output from the field now amounts to 411 million m³.

Ebro B, C, D and E

The “Ebro-B”, “Ebro-C”, “Ebro-D” and “Ebro-E” hydrocarbon exploration permits are joint-owned by Sociedad de Hidrocarburos de Euskadi, Unión Fenosa Gas E&P and Oil&Gas Skills. In 2017 an application was made to the Ministry of Energy to renounce continued research in these permits. This application is currently pending resolution.

Enara, Mirua, Usapal and Usoa (Gran Enara project)

These investigation licences are joint-owned by Sociedad de Hidrocarburos de Euskadi (44%), Petrichor Euskadi Coöperatief UA (36%) and Cambria Europe Inc. (20%).

Initially, it had been decided to use hydraulic fracturing as the best technique

for assessing and stimulating the site, which is linked to the Valmaseda formation. At the proposal of the Basque Parliament, in July 2016 the Basque Government announced its decision to ban use of the technique, and it was therefore decided to assess the field using conventional advanced techniques. In 2016, we applied for authorisation to drill the Armentia-2 conventional exploratory well. This application was processed via environmental assessment.

Following the public information process in 2018, a favourable Environmental Impact Statement (EIS) was obtained on 27 November 2019 for the *Armentia-2 conventional hydrocarbon exploratory well*.

In October 2020, an application was submitted to Vitoria-Gasteiz City Council for a municipal works licence for the Armentia-2 well. This application was turned down on 13 January 2021. In March 2021, a contentious-administrative appeal against this ruling was filed before the courts in Vitoria-Gasteiz.

Lore, Landarre and Sustraia

The Sustraia, Landarre and Lore licenses, jointly owned by Sociedad de Hidrocarburos de Euskadi and Petrichor Euskadi Coöperatief UA (Sucursal en España), were awarded in October 2018.

Environmental aspects

The following fieldwork was carried out during the year:

Production operation from the Viura field, with natural gas piped into the gas network and marketed.

None of these works had any environmental impact.

GEOLOGICAL AND MINING RESEARCH

DEPARTMENT OF GEOLOGICAL & MINING RESOURCES

The principal actions carried out in the area in 2021 included:

Technical support to the affiliate Micronizados Naturales S.A., which manufactures mineral loads of calcium carbonate.

Technical support to Sociedad de Hidrocarburos de Euskadi S.A., in work related to regional, surface and subsoil geology.

Technical assistance to the Basque Government's Department of Economic Development, Sustainability and Environment in risk assessment of abandoned mining structures and digitalisation of information from the mining registry. Key actions during 2021 included:

- Management and follow-up of monitoring of the fines pond at the Troya Mine (Gabiria-Mutiloa). Institutional support.
- Technical advice on organisation of works for resolving safety issues in the environs of the Kaolin-Eder mine (Altzo, Gipuzkoa).
- Monitoring of work on a geotechnical solution for access to the Troi pithead.
- Contracting of the project for resolving subsidence at the María Milagros Mine in Asteasu.
- Mining Registry. Compilation of information, review and digitalisation for uploading to the Geominero website.

Improvements and introduction of new tools in the “Basque Geo-Mining Portal”.



In the area of geological information and infrastructure:

Mapping and digitisation

- Contract for completion of the remaining sixty-one quadrants at 1:25,000 using LIDAR, to be carried out in a 5-year programme.
- Publication of twelve quadrants of the 1:25,000 geological map using LIDAR.
- Completion of the remaining 50% of the geological and cartographic interpretation of the coastal area of the Basque Country from 100m to 200m depth*.
- Contracting and monitoring of structural geological interpretation tests on cliffs using drones.
- 3D-modelling of the Basque-Cantabrian Basin**.
- Digitisation of 10 detailed geological cartography maps.
- Creation of graphic documents of 330 mining research drilling logs and uploading to the Geominero website.

Through collaboration agreements with the University of the Basque Country (*) and the Spanish Geological and Mining Institute (**).

Subsoil survey

- Monitoring and maintenance of the fifteen stations in the permanent network for measuring, inspecting and monitoring seismic activity in the area of the Basque Country (EUSKALSIS).

Mining investigation

- Design of a multi-element rock sampling and geochemical analysis, to complement existing ones.

Geodiversity

- Malaespera Mine in Bilbao:
 - Contracting and monitoring of a soil quality study of the mine's interior workings.
 - Contracting and monitoring of a geotechnical study of the mine's interior workings.
- Geological and mining heritage map for the municipalities of Zerain, Mutiloa, Gabiria, Ormaiztegi and Legazpia.
- Collaboration agreement with the University of the Basque Country to perform a research project on ornamental rocks, entitled "Euskal harriak. Patrimonio geológico y cultural" (Basque Stones. Geological and Cultural Heritage).





COMMUNICATION



Throughout 2021, EVE's activities in the area of communication centred on renewable energy. Pioneering new projects have been launched for developing solar cooperatives, fledgling marine technologies have been tested and new wind power installed, all with goal of moving towards a Basque energy system that is increasingly less dependent on fossil fuels and more reliant on renewables.

Facemasks were a constant feature throughout the year as we began to restore face-to-face contact, in an attempt to gradually return to the pre-pandemic situation. As a result, we were able to hold the first project presentations and energy-themed exhibitions and participate in trade fairs. This direct contact is important not only in terms of corporate communication, but also from a human perspective, since it restores our greatest sign of identity — sociability. Nonetheless, online workplaces have gained a foothold and we are now seeing increased levels of hybridisation, with face-to-face encounters being complemented by digital ones.

During the year, EVE presented the first ten Ekiola solar energy cooperatives. This marks a milestone that will transform the way we view energy production and consumption, putting the general public in the driving seat of their own energy supplies. The Ekiola formula was

presented by Regional Minister Arantxa Tapia at Txillida Leku in February, and since then a number of local and regional cooperatives have been launched, primarily in Gipuzkoa and Araba. These energy communities will use solar power for their day-to-day energy needs. The year also saw presentation of the objectives of Aixeindar, a company that has begun administrative procedures for installing new renewable wind power capacity in Alava, and the announcement that a new wave energy device (Finnish tech firm Wello's "Penguin") would be tested at the BiMEP site in Armintza. Another floating wind power device, the DemoSath, is currently under construction in the port of Bilbao and will also be moored at BiMEP.

In all, a total of forty-eight press releases and communiques were issued. The communications department also managed the digital tools on the EVE website and various social networks, as well as providing face-to-face and telephone interviews and answering questionnaires, all with a significant impact across a range of media outlets.

Other events in which EVE took part included:

Berdeago Energy. Held online in April 2021.

Go mobility by Mubil. 11 and 12 March 2021. Ficoba, the Gipuzkoa exhibition centre.

Bioterra. 4-6 June 2021. Ficoba, the Gipuzkoa exhibition centre.

Asteklima: 24 September – 3 October. Programme of tours and workshops in coordination with Ihobe, with the involvement of local institutions in different parts of the Basque Country.

Basque Green Deal (travelling exhibition): Bilbao, Vitoria-Gasteiz and Donostia-San Sebastian (September–December 2021).

Presentation of WindEurope Bilbao at WindEurope Copenhagen.

Online presentation of ICOE 2022 in April 2021.

Seminars and webinars continued to be held online throughout the year. Altogether four streaming events were organised, dealing with decarbonisation through heat pump



technology; exemplary mobility projects; aid programmes for self-consumption; and electrification of heating in urban environments.

Our publicity campaigns continued with morning slots on the country's main radio stations offering energy saving tips. The organisation also maintained its presence in the print media with articles on economic matters and supplements on energy, infrastructures and innovation.

To mark World Energy Efficiency Day, a campaign was run during the first week of March in the online press and on outdoor media (advertising hoardings, scrolling advertising boards, public transport shelters, etc). The campaign to mark European Sustainable Energy Week included graphic and radio material as well as TV commercials on ETB1 and ETB2 focusing on the Basque energy transition, with the slogan "Avanzamos con tu energía" (Advancing with Your Energy).

Finally, in the area of corporate communication, progress has been made in publicising EVE's work in the area of Corporate Social Responsibility. One highpoint was the expedition by mountaineer Alex Txikon, who uses only solar energy in his expeditions to the Himalayas. His solar panels are later fitted for use in local rural schools.





NEW ORGANISATIONAL AND WORKING MODEL



Reinforcement of a new organisational and working model, better suited to new challenges in the areas of energy, the environment and the economy.

2021 saw a gradual return to normality following a period during which the Covid-19 pandemic prompted new ways of organising and working. In the case of the EVE Group, this process coincides with the increasingly urgent process of energy transition, in which staff from the organisation are playing an ever more strategic role.

Following the pandemic, a new working model has been introduced that combines face-to-face and distance working. Almost the entire workforce now has the opportunity to work from home during part of the week. This is helping improve work-life balance, while at the same time promoting a new model of work time management that is more in line with current practise, with technology favouring greater and better online interrelations, with a consequent improvement in the way working hours are used.

As at 31 December 2021, the **average age of the workforce** was 49 years and 9 months. Eighty-eight percent of staff have a university degree. The average age was 52 for men and 47 for women. Average time working in the organisation was 19 years and 9 months. This level of experience and professional qualification is key to meeting the organisation's objectives. Almost one third of the workforce (30.7%) was aged over 55. This proportion is even greater (over 50%) among those in senior positions in the organisation. EVE currently enjoys a wealth of knowledge and experience among its employees, but it also has a significant number of staff who are approaching retirement age. As a result, mechanisms are already underway to ensure a smooth transmission of knowledge and a **generational handover**.

By gender, 56% of staff are male and 44% female. This move towards gender parity has intensified in recent years. Amongst over-55s, two-thirds are men and one-third women but in the younger age groups, the situation is more balanced.

There has been an improvement in **gender equality** in recent years. No discrimination has been detected in the selection and hiring processes, remuneration systems or opportunities for promotion. Mechanisms have also been put in place to improve employees' work/life balance. These include schemes for reducing working hours, parental leave, flexible working hours and consolidation of the home working model. The actions set out in the EVE Group's current Equality Plan have been implemented to enable further progress in all aspects related to equality within the organisation (culture, people, communication and management).

In 2021, seventy-five **training** actions were conducted, focusing on a range of aspects related to the EVE Group's technical and administrative activities. In addition, a range of language courses were managed by the company, with 44 staff members taking part.

Altogether, 4.6% of working hours were given over to training, of which slightly more than half were invested in classes for learning and improving Basque. This section also includes internal staff training sessions, within the area known as *Aula EVE*. Nine sessions were held in 2021.



During the year, EVE Group staff identified, communicated and managed 302 webinars. In all, a total of 69 registrations to these seminars were confirmed. Because they are held online, they entail no associated expenditure on travel, accommodation, etc.

In satisfaction surveys, students gave the training actions a score of 7.9/10, practically identical to the figure for 2020.

Continued progress is being made in the **Plan for Standardisation of Use of the Basque Language**, which is being developed in four main areas: corporate image and communication, external relations, internal relations, and language management.

The **Corporate Agreement** for 2018-2020 was extended and remains in force. Among other aspects, the agreement includes significant advances towards promoting improved work/life balance, through greater working flexibility, an increase in paid leave for private matters and the first steps in teleworking.

The **structural workforce** remained unchanged, although a number of extra workers were hired on a temporary basis during the year to cope with the organisation's new requirements.

EVE GROUP WORKFORCE AS OF 31 DECEMBER 2021

	MANAGEMENT STAFF	TECHNICAL STAFF	ADMINISTRATIVE STAFF AND OPERATORS	TOTAL PERMANENT	TEMPORARY	INTERNSHIPS	TOTAL
Ente Vasco de la Energía	7	43	7	57	5	4	66
Sociedad Hidrocarburos de Euskadi	1	6	1	8			
BiMEP	1	3		4			
TOTAL	9	52	8	69	5	4	78





KEY FINANCIAL ASPECTS OF 2021



EVE recorded a net profit for the year of €1.4 million.

Turnover (from sale of electricity generated at EVE-owned renewable energy plants) totalled 2.4 million euro.

Dividends from affiliates, the main source of income, came to 19.5 million euros.

Grants awarded under the energy efficiency and renewable energy subsidy schemes came to €67.7 million, up €50.9 million on the previous year.

Financial investments amounted to 3.2 million euros.

KEY FIGURES. ENTE VASCO DE LA ENERGÍA. € x 000

ITEM	2017	2018	2019	2020	2021
Income for the year	25,839	36,103	50,898	14,879	78,712
Investments for the year	6,991	1,733	853	1,543	3,200
Equity	156,981	179,305	205,310	162,485	163,919
Total assets	167,865	187,805	218,960	196,413	292,046
Profit/loss before tax	0	22,324	26,005	-16,820	1,434
Profit/loss after tax	9,665	22,324	26,005	-16,820	1,434

INCOME STATEMENT. ENTE VASCO DE LA ENERGÍA

For years ending 31 December 2021 and 2020. All figures in euros.

OPERATIONS CONTINUED	2021	2020
Net turnover	2,399,729	2,310,922
Other operating income	56,822,532	975,926
Personnel expenses	(4,912,527)	(4,654,341)
Other running costs	(69,204,329)	(22,841,119)
Depreciation in fixed assets	(977,480)	(1,124,146)
Allocation of grants of fixed assets	7,201	7,201
Impairment loss and losses/gains from disposals	145,746	(555,532)
Other profit/loss	0	8,784
OPERATING PROFIT	(15,719,128)	(25,872,305)
Financial Income	19,490,063	11,592,655
Exchange rate differences	0	0
Impairment loss and losses/gains from disposals	(2,336,884)	(2,540,342)
FINANCIAL PROFIT/LOSS	17,153,179	9,052,313
PROFIT/LOSS BEFORE TAX	1,434,051	(16,819,992)
Tax on profits	0	0
PROFITS FOR THE YEAR	1,434,051	(16,819,992)

BALANCE SHEET. ENTE VASCO DE LA ENERGÍA

For years ending 31 December 2021 and 2020. All figures in euros.

ASSETS	2021	2020
NON-CURRENT ASSETS	85,160,619	86,124,263
Intangible fixed assets	537,502	933,451
Tangible assets	2,334,343	2,462,787
Investment in real estate	7,542,253	7,715,077
Long-term investments in group companies and associates	71,638,159	71,973,886
Long-term financial investments	3,108,362	3,039,062
CURRENT ASSETS	206,885,602	110,288,860
Trade debtors and other accounts receivable	534,627	1,218,576
Short-term investments in group companies and associates	204,028,329	5,837,517
Short-term financial investments	897	1,897
Cash on hand and other equivalent liquid assets	2,321,749	103,230,870
TOTAL ASSETS	292,046,221	196,413,123

EQUITY AND LIABILITIES	2021	2020
NET WORTH	164,130,923	162,702,346
EQUITY	163,918,848	162,484,797
Corporate assets	90,853,985	90,853,985
Income carried forward	71,630,812	88,450,804
Profits for the Year	1,434,051	(16,819,992)
GRANTS, DONATIONS AND INHERITANCE RECEIVED	212,075	217,549
NON-CURRENT LIABILITIES	9,022,337	206,370
Long-term provisions	0	0
Long-term debts	8,955,304	137,610
Liabilities from deferred tax	67,033	68,760
CURRENT LIABILITIES	118,892,961	33,504,407
Short-term provisions	56,629,377	6,049,218
Short-term debts	57,563,550	20,326,304
Debts with companies in the group and associates	0	3,672,072
Trade and other payables	4,700,034	3,456,813
TOTAL EQUITY AND LIABILITIES	292,046,221	196,413,123



CARBON FOOTPRINT

A large, white, stylized number '10' is centered in the upper half of the page. The background behind the number is a landscape with rolling green hills, a line of trees, and a blue sky with white clouds. The number '10' is semi-transparent, allowing the landscape to be seen through it.

Ente Vasco de la Energía: committed to excellence in environmental management. During 2021, EVE drew up a greenhouse gas inventory and calculated the organisation's carbon footprint.

There is an increasing awareness of the need to act globally to combat climate change and the first step for any organisation is to identify its carbon footprint.

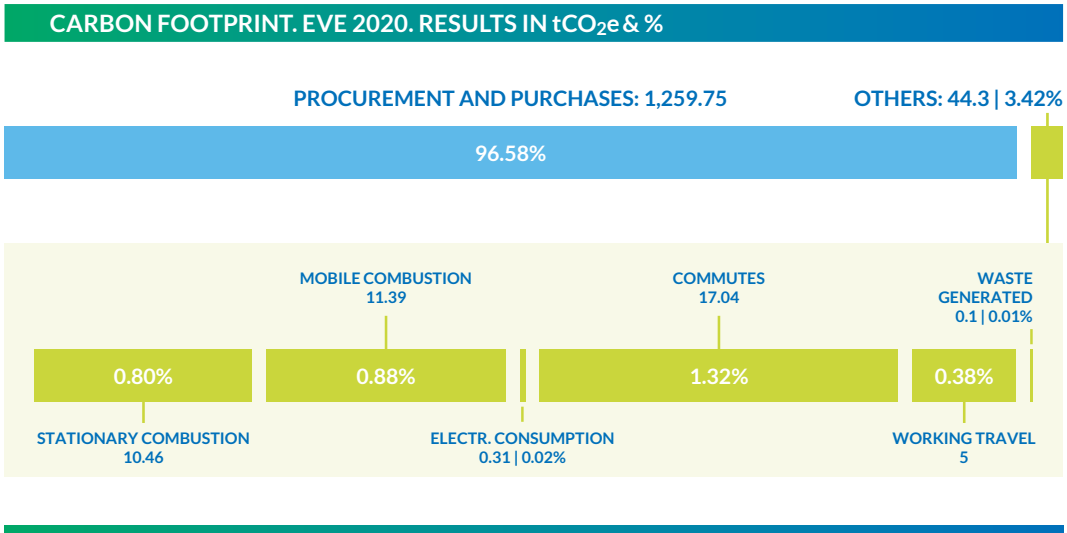
The process was conducted in line with the requirements of ISO 14064-1:2018. The study also involved calculating EVE's contribution to decarbonisation, by estimating the emissions avoided through a range of decisions, activities and projects.

CALCULATION OF CARBON FOOTPRINT

The inventory of greenhouse gas emissions examined all 2020 emissions from facilities over which the organisation had operational control, including affiliates, projects and facilities 100% owned by EVE.

Emission sources were defined using ISO 14064-1:2018, Appendix B.

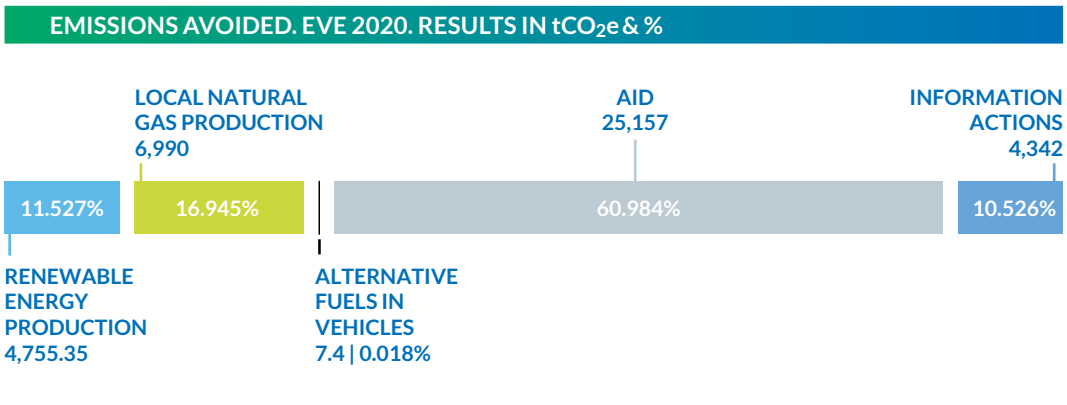
As a result, EVE's carbon footprint for 2020 was calculated at **1,304.5 tCO₂e**.

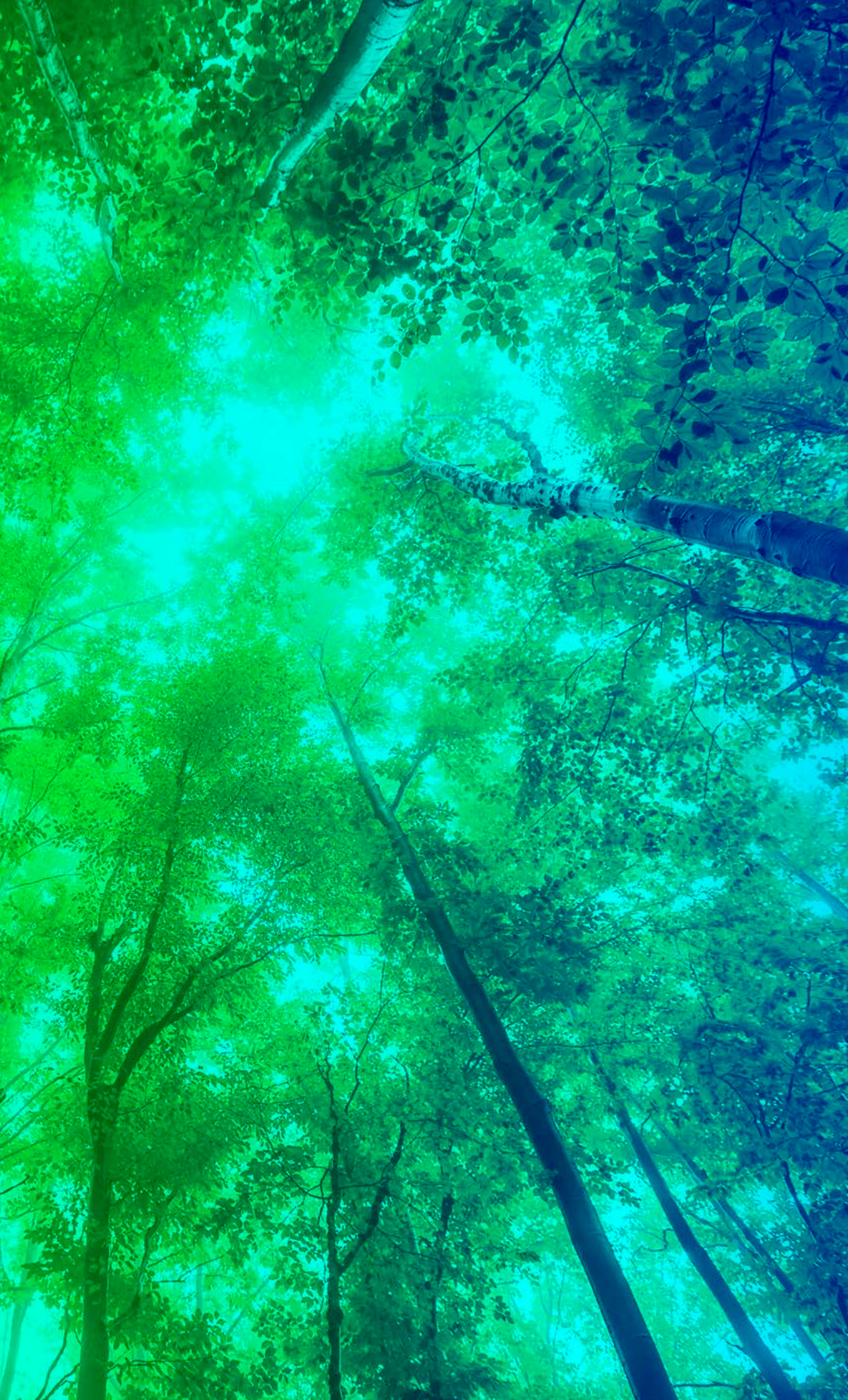


CALCULATION OF EMISSIONS AVOIDED

EVE's GHG emission avoidance for 2020 was calculated based on its participation and holdings in different facilities and projects, giving a result of **41,251.75 tCO₂e**.

These results show that EVE's activities had a significant net positive impact on the decarbonisation process, making a significant contribution to combatting climate change.





ANNUAL REPORT 2021



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ERAKUNTZEN GARAPEN,
JASANGARRITZA
ETA INGURUMEN SAILA
DEPARTAMENTO DE DESARROLLO
ECONÓMICO, SOSTENIBILIDAD
Y MEDIO AMBIENTE

ENERGIAREN
EUSKAL ERAKUNDEA
ENTE VASCO
DE LA ENERGÍA

