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Measures for a green, inclusive and social recovery





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Fundación Renovables (Declared a public utility company) Pedro Heredia 8, 2º Derecha 28008 Madrid www.fundacionrenovables.org

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Current overview after the pandemic

Measures for a green, inclusive and social recovery



Current overview after the pandemic

Economic slowdown and recovery

The global economy is experiencing a steady, yet unequal recovery, which is unique to each country and economic sector. The economic crisis resulting from the Covid-19 pandemic was so sudden that in just **one month in Spain one million people lost their jobs and another three million people found themselves under the Spanish furlough scheme (ERTE)**, according to figures from the Spanish Public Employment Service (SEPE).

The <u>Global Economic Prospects</u> report published by the World Bank in January 2021 revealed that, after the first and second wave of the pandemic, the global economy contracted by 4.3% in 2020, something which can only be compared to the Great Depression and the two World Wars. Similarly, according to the International Monetary Fund (IMF), the global economic prospects are unequal. The global economy will grow by around 5.5% in 2021 and by 4.2% in 2022, but these values are unequal when considering the impact of Covid-19 on each country and the vaccination rate. Furthermore, it is forecast that almost 90 million people across the world will fall into poverty this year.

And although the global economy is growing again after this contraction thanks to the different stimulus packages and the recovery of productive activity, the pandemic has resulted in a large number of deaths and illnesses, millions of people have found themselves in poverty, and economic activity and income could be reduced for a prolonged period. As emphasised by the World Health Organisation (WHO), the main short-term policy priorities to avoid a prolonged impact should be to control the spread of Covid-19 and guarantee a rapid and widespread dissemination of the vaccinations.

In response to the economic impact caused by Covid-19, the **European Union (EU) has** planned and organised a joint response to ensure the European markets in all member states continue to function and to make the most of the opportunity to move the European economy towards a more sustainable model. With the aim of boosting the economy, there have been widespread calls for a focus on the "green" recovery. This means driving socio-economic development while also achieving the targets set by the Paris Agreement, therefore contributing to restricting the global temperature increase to 1.5°C. After one year however, recovery spending still does not meet the commitments of a more sustainable reconstruction. According to the United Nations report "<u>Are We</u><u>Building Back Better? Evidence from 2020 and Pathways for Inclusive Green Recovery</u> Spending", which analyses the spending of the largest economies, **only 18% of the spending announced for the recovery can be considered "green"**, a percentage which is clearly not enough considering the scale of the environmental crisis we are experiencing. In a similar vein, the report indicates that Spain's Recovery Plan amounts to an ecological spending of 31%, below the 37% benchmark set by the EU and forecast by the Spanish government. Another piece of information to take into account from the report is that 17% of this spending can have a positive or negative impact on the green transition depending on the implementation of the relevant measures.

In June 2021, REN21 published the report "<u>Global Status Report (GSR) 2021</u>", which draws attention to the fact that the share of fossil fuels in the global energy mix has reduced by almost nothing in 2020. The percentage of fossil fuels in the energy mix today is similar to that of a decade ago (80.3% compared to 80.2% today). Even so, global investment in new renewable power amounted to USD 303.5 billion in the last year, 2% more than in 2019. In addition, the recovery packages between January 2020 and April 2021 assigned at least USD 53.1 billion in direct aid to renewable energy, almost six times less than that assigned to fossil fuels.

Through its report "<u>Net Zero by 2050: A Roadmap For The Global Energy Sector</u>" the International Energy Agency (IEA) provided a roadmap that sets more than 400 milestones to lead the global path to net zero by 2050 and achieve a green recovery as one of its main lines of action. Among other measures, they propose no more investments in new fossil-fuel supply projects, no sales of new internal-combustion cars by 2035, and that the global electricity sector reaches net zero emissions by 2040.

European response: Next Generation Funds

To help repair all the economic and social damage caused by the Coronavirus pandemic, the European Commission (EC), the European Parliament (EP) and the leaders of the EU agreed an **historic recovery plan which aims to lead the way to overcoming the crisis and setting the foundations for a more modern, digital and sustainable Europe**.

The <u>Next Generation EU</u>, also known as the European Recovery Fund, sets out a total of €750 billion which the EU will distribute to the member states in the form of transfers and loans. This will be explained in more detail later in this document. This represents the largest stimulus package ever financed through the EU budget, with a

total of €1.8 billion allocated to reconstructing Europe. The EU has allocated Spain up to €140 billion under conditions whereby the energy transition and digitalisation are the foundations for facilitating the recovery.

In Spain, the Next Generation EU funds will be delivered through the Spanish General State Budget (GSB) once the EC has approved Spain's Recovery, Transformation and Resilience Plan (RTRP). In Spain's case, the Central Spanish Government will transfer the funds to the autonomous regions of Spain and local bodies through agreements and subsidies that are always aligned with the targets set in Brussels.

Spain's Recovery, Transformation and Resilience Plan

In order to be able channel these Next Generation EU funds into tangible and feasible initiatives, the Spanish government published a report entitled <u>Recovery</u>, <u>Transformation and Resilience Plan (RTRP)</u> in October 2020 and submitted it to the European Union. It can effectively be defined as a **roadmap to modernising the Spanish economy**, managing and developing the European funds, and addressing the economic crisis caused by Covid-19.

This plan has been defined as "a national project that meets the expectations and aspirations of Spanish citizens and requires the collaboration of all national and *European public administrations, economic bodies, and society as a whole.*" The plan has three targets: short-term support of the recovery from the health crisis; medium-term promotion of a structural transformation process; and long-term achievement of more sustainable and resilient development in economic, social, regional and environmental terms.

The essential regulation for managing the European funds in Spain until now has been <u>Royal Decree-Act 36/2020</u>, which approves urgent measures for modernising public administration and executing the Recovery, Transformation and Resilience Plan.

The plan has four axes covering different sectors, which set a framework for all the components, and these axes are aligned with those established by the Recovery and Resilience Facility: a) the **ecological transition**; b) the **digital transformation**; c) **social and regional cohesion**; and d) **gender equality**.

These fours axes are projected in 10 key policies on activity and employment with a 2023 horizon. These policies aim to drive the short-term economic recovery and support a transformation process which increases the productivity and potential growth of the Spanish economy in the future. These 10 key policies contain the 30

components that shape Spain's investment projects and reforms. Although most of them are horizontal in nature, some are aimed at driving modernisation in key sectors such as the trade, tourism, agri-food, healthcare and automotive sectors, and in public administrations themselves.

In this regard, the recovery plan forecasts over €140 billion of public investment will be made by 2026. There will be a strong focus on the investments and reforms in the first phase of the Next Generation EU plan, which covers the period from 2021 to 2023 and aims to boost the recovery. Table 1 summarises the different components of the plan with their investments:

	Components of the Recovery, Transformation and Resilience Plan	Millions of euros 2021-2023
1.	Sustainable, Safe and Connected Mobility Strategy	13,203
2.	Housing Rehabilitation and Urban Regeneration Programme	6,820
3.	Modernisation of Public Administrations	4,315
4.	SME Digitalisation Plan	4,066
5.	5G Roadmap	3,999
6.	Spain's New Industrial Policy 2030 and Circular Economy Strategy	3,782
7.	National Plan of Digital Competences	3,593
8.	Modernisation and Competitiveness of Tourism Sector	3,400
9.	Development of National Science and Innovation System	3,380
10.	Implementation and Integration of Renewable Energy	3,165
11.	New Nursing Economy	2,492
12.	New Public Policies for a Dynamic, Resilient and Inclusive Labour Market	2,363
13.	Preservation of Coastline and Water Resources	2,091
14.	Strategic Professional Training Plan	2,076
15.	Modernisation and Digitalisation of Education System	1,648
16.	Conservation and Restoration of Ecosystem and Biodiversity	1,642
17.	Renewable Hydrogen Roadmap	1,555
18.	Electrical Infrastructure, Smart Networks, Storage	1,365
19.	Renovation and Modernisation of Healthcare System	1,069
20.	National Artificial Intelligence Strategy	500

Table 1. Spain's Recovery, Transformation and Resilience Plan (Components). Source: MITECO. Created by Fundación Renovables.

Finally, based on <u>Royal Decree-Act 36/2020</u>, Spain would have three distribution lines of European funds. The first is a new public-private collaboration through the **Strategic Projects for Economic Recovery and Transformation** (known by its Spanish acronym PERTE). The second is through **subsidies for financing private assets**, which require public-private funding. And the third is **contracts through tenders for financing public assets**.

The management of the funds proposed in the plan will be spread across a period from 2021 to 2026. However, €72 billion will be mobilised in the first three years (2021–

2023) in order to boost the economy and employment. Table 2 shows the periods of the plan's components that have an impact on the energy sector.

Component	Period	2020	2021	2022	2023	2024	2025	2026
COMPONENT 1 Sustainable, safe and	Plan Funding	122.5	1,777.60	2,631.40	1,620.80	242.80	87.5	53.40
connected mobility	Other Funding		618	1,602	580			
and metropolitan areas	% of the Plan total			<u></u>	9%			
COMPONENT 2 Implementation of the	Plan Funding	300	2,036	2,539	1,945			
Spanish urban agenda: rehabilitation and	Other Funding							
urban regeneration plan	% of the Plan total	9.8%						
COMPONENT 6	Plan Funding	21.6	437.5	1,881.90	2,120.90	1,335.30	641.6	228
Sustainable, safe and connected mobility	Other Funding		278	405	314	203		
	% of the Plan total	10%						
COMPONENT 7	Plan Funding		1,900	630	635			
integration of	Other Funding							
renewable energy	% of the Plan total	4.55%						
COMPONENT 8 Electrical infrastructure, promotion of smart networks and	Plan Funding		367	499	499			
flexibility and storage	Other Funding							
	% of the Plan total	1.96%						
COMPONENT 9 Renewable hydrogen	Plan Funding		400	555	600			
roadmap and its	Other Funding							
Sectoral integration	% of the Plan total				2.24%			
COMPONENT 10	Plan Funding		90	110	100			
Fair transition strategy	Other Funding		1.35	3.65	3			
	% of the Plan total				0.43%			

Table 2. Components of the Recovery, Transformation and Resilience Plan with an impact on the energy sector (in millions of euros). Source: MITECO. Created by Fundación Renovables.

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Priority lines of action

Measures for a green, inclusive and social recovery



Priority lines of action

Fundación Renovables always focuses all its proposals on **the electrification of the energy demand as a line of action**. Thanks to this, measures to change the energy system, by promoting a green recovery, will include people, and their welfare will be prioritised by generating social and economic value.

There is no question that we need to progress towards a 100% renewable and decarbonised electricity system by 2050. To achieve this, we need to take ambitious measures in the next ten years, taking advantage of the turning point represented by the Next Generation EU funds to implement technological and socio-cultural changes that represent a real renewable energy revolution.

The guiding framework of the <u>Integrated National Energy and Climate Plan (known by</u> <u>its Spanish acronym, PNIEC</u>) in Spain has some low minimum targets compared to what is set by the EU. It sets a 2030 target of a total electricity share of 27%, from a starting value of 24%. This is despite the percentage decreasing to 22% in 2018, losing 3 percentage points in the last 10 years. **Electricity has not only not garnered a higher share, but it has lost part of its share.**

The recent <u>Climate Change and Energy Transition Act</u> has not committed to this either, as evidenced by the lack of an electrification target. With regard to the targets proposed in Article III, it is important to note that the target for greenhouse gas emissions throughout the Spanish economy has increased from 20% in 1990 to 23%, and the target for the penetration of renewables in the final energy consumption has risen from 35% to 42% in order to achieve an electricity system with 74% generated from renewable sources by 2030. In other words, these targets are matched by the PNIEC. The proposal to review the targets in 2023 highlights the lack of force or ambition in passing the act.

The continuation of thermal-combustion processes, both with fossil fuels and synthetic fuels, results in bad air quality at the places where they are consumed. Maintaining a high presence of renewable energy and low electrification places doubt on the reasoning, objectivity and feasibility of the targets set for 2030. We need to take into account that technologically, and in terms of the characteristics and availability of resources, generating electricity with renewable sources must be the basis of our system, due to its economy, efficiency and suitability.

Completely covering energy needs with electricity from renewable energy sources such as wind and photovoltaic power ensures zeros emissions at both source and destination, and it is currently the only energy vector with this characteristic. If we fully electrify the energy demand, this will facilitate the inclusion of people as a key and central aspect around which the future electricity system we are pursuing will pivot. **The development of photovoltaic self-consumption, distributed generation, supply administrators, demand aggregators and all the new players associated with the active role of people in purchasing, generating, storing and selling energy will be encouraged, creating quality employment opportunities within the new energy model.**

In addition, in order to enable and make progress towards universal access to electricity, we must ensure that it is something that is affordable to people with all levels of income. As we claimed at the start of the year in the report "¿Qué hacemos con la tarifa eléctrica? Ideas y propuestas para su desarrollo desde el objetivo de la electrificación de la demanda" (What can we do with the electricity tariff? Ideas and proposals for its development from the electrification of demand target), we need to act on the tariff and the electricity market to make electricity cheaper and ensure it is **pay-per-use**. Electrification will be of little use if the electricity costs are not aligned with the costs of generating it, and it must be competitive with the more contaminating energy sources it seeks to replace.

Similarly, **Fundación Renovables** has started to analyse the **Recovery, Transformation and Resilience Plan** within the **Prosoxi organisational alliance** (Observatory for the Socially Fair Ecological Transition), drawing up a document that provides an <u>initial</u> <u>assessment of its content</u>. A notable aspect of this assessment is the negative opinion of green hydrogen, which the plan outlines as a national project, as it lacks a degree of social inclusion and does not generate local economic activity in a distributed way. This is in contrast to photovoltaic energy, which does so through the different forms of selfconsumption and energy communities, in addition to its modular capacity and low costs. The strong investments in hydrogen jeopardise the change to a decentralised energy model by maintaining large electricity companies' structural control, therefore enabling them to hold the economic and decision-making power and control the rate of the energy transition.

Criteria for project selection

In order to move in a direction of improvement and green, inclusive and equitable recovery, the Next Generation EU funds represent an historic opportunity for starting to design a future of progress, generating social value and employing local resources

and the capacities we have, such as renewables and efficiency. We must also continue to promote scientific development, technological innovation, digitalisation and educational improvement regarding sustainability.

The **absence of clear selection criteria** that do not promote these aspects could widen the gap between large corporations (business groups) and small- and medium-sized companies (SMEs). This would create an asymmetrical burden in the financing capacity that would be difficult to overcome, once the economic recovery has started, without alternatives or competition between different players. This would then result in the 1.5°C global temperature increase limit being reached.

Fundación Renovables believes solid criteria based on a broad basis of sustainability need to be established to define the eligibility and conditions of the proposed initiatives. These criteria must be based on:

- A broad sense of sustainability, even if the criteria are regulated by <u>Community Regulation 852/2020</u>, which contains the taxonomy that sets the criteria for sustainable investments and climate bonds. Despite the ambiguous content of this regulation, the European Commission's legal services will approve the projects submitted to ensure greenhouse gases are not painted green.
- The intrinsic need to **act urgently**, prioritising projects in advanced development and with a short- and medium-term implementation stage.
- The existence of a significant **potential market** which accelerates the reinvigoration of the economy and its short-term growth.
- The **capacity for replication** and, as a result, distribution across the whole country, providing national cohesion.
- The commitment to ensuring that mainly **small- and medium-sized companies** carry out the projects in order to recover the production make-up and employment where the crisis has hit hardest. If a large part of the fund goes to large companies, the gap in capabilities will increase, destroying SMEs and freelancers due to a lack of ability to invest and act.
- Committing to improvements that have an impact on the **consumer**, considering energy as a basic need and not only an economic vector.
- **Inclusion** as a mandatory step in the recovery to ensure nobody is left behind. Not doing this, as was the case with the 2008 crisis, would turn circumstantial problems into structural problems.

These criteria are based on the premise that the energy transition we are currently experiencing **must generate economic and social value across the country, while also**

always ensuring progress, inclusion of people and conservation of the environment are the ultimate goals. If these targets are not taken into account in the projects carried out using the funds, the centralised energy model would remain, the economic gap between the large and small companies would widen, and large social contrasts and economic differences would be created.

Initiatives for a green and inclusive recovery

Under the electrification of demand line of action, and with the criteria we have set and selected, **Fundación Renovables proposes measures based on their feasibility**, **social inclusion and acceleration of the energy transition**. Working to coordinate and combine efforts to make the most of the opportunity that has presented itself would facilitate the achievement of a more equitable, sustainable and resilient socioeconomic model, therefore ensuring the future and employment of next generations.

In June 2020, before the EU's stimulus packages and the economic consequences of the pandemic were known, **Fundación Renovables** published the report "<u>Lessons</u> <u>learned: how to overcome the crisis</u>". This document contained ambitious proposals and targets for 2030, but with an intense effort to be made in 2020/21, which has not been the case. A **total investment of over €60 billion was proposed** for the period 2020–2021, either executed or tendered, with a public investment of €4.36 billion and more social spending or less tax income of €3.57 billion, which would meet the proposed targets. Meanwhile, the taxation proposal generated income of €5.18 billion.

Most of the following proposals are taken from this report, but they are updated based on the recovery plan and the provision of funds, and some new proposals have been added. These proposals are a commitment to the future with a reactivation package that generates economic and social value in equal measure.

Self-consumption and distributed generation

Electricity generated locally or connected to consumption points is one of the pillars on which the change of energy model and, as a result, the green economic recovery must be based. There are numerous benefits because it gives people the chance to become active players within the electricity system as they can generate, consume, sell, store and manage their own energy. This promotes the development of a new way of interacting with energy as people assume a role of responsibility within the concept of responsible consumption. As we reflect upon in the report we published in November 2020 "<u>Autoconsumo:</u> <u>presente v future</u>" (Self-consumption: present and future), we believe it is a suitable line of action, in conjunction with the selection criteria mentioned, as it represents an opportunity for people, neighbourhoods, large and small cities, regions, associations and companies. It contributes to increasing the policies and tools for managing demand, making the energy systems more democratic by increasing and reinvigorating society's participation in them.

In 2020, 1,539 MW of new photovoltaic power was installed in Spain in the form of individual self-consumption, 30% more than the previous year. In particular, the domestic market experienced a notable surge, accounting for 19% of the new MW, while industry and trade were stabilised at 56% and 23%, respectively. To increase, drive and consolidate this growth, **Fundación Renovables** proposes:

- That 10% of final electricity generation be covered by photovoltaic selfconsumption by 2030. Based on the scenario proposed in the 2018 report, this measure would entail installing 18,000 MW in Spain by 2030. In other words, 2,000 MW per year.
- That demand aggregators be developed and implemented. This practice would represent a noticeable reduction of contracted power, in line with the simultaneity coefficients of all the consumers grouped together. The flexibility of demand is the best element for system manageability and means changing the oversizing of generation and networks.
- That **VAT be lowered to 10%** for installations in homes in which the investor is subject to VAT.
- That a plan for reducing Spanish property tax (known by its Spanish acronym, IBI) be established for homes that install self-consumption. Councils of towns of over 10,000 inhabitants currently have an average allowance of 50% over 3 years. An extension is proposed for all town councils.
- That there should be a **corporation tax** exemption worth 5% of the investment made:
 - Introducing a deduction worth 5% of the investment, with a limit equivalent to 10% of the taxable base on the personal income tax declaration.

Energy communities

The fact that most people in Spain live in residential housing blocks means that shared and local self-consumption has the most implementation potential. Therefore, we need to make progress in its development by improving <u>Royal Decree 244/2019</u>, which

regulates the administrative, technical and economic conditions of electrical selfconsumption. **Energy communities** play a special role in this development process as they represent another forward step in democratising energy. They are installations placed in optimal locations in a neighbourhood, business park or garden, where colleagues, neighbours or members can access them, including public bodies acting as co-owners, members or associates.

<u>EU Directive 2018/2001</u> and <u>Directive 2019/944</u>, from 2018 and 2019, respectively, incorporated the term "local energy communities", which encompassed two new legal terms: "citizen energy communities" and "renewable energy communities". They are described as "any not-for-profit association, cooperative, company, organisation or other legal body that is controlled by shareholders or local members and is generally focused on value over profitability, distributed generation and carrying out management activities of a distribution, supplier or aggregator network at a local level".

The definition has been transposed into Spanish legislation (beyond the terminological difference that will need to be resolved), but only partially, without going into its legal, technical and financial development. In June 2020, <u>Royal Decree Act 23/2020</u> introduced the term of renewable energy communities into Spain's regulations, but there is still insufficient regulation and strategic planning for its implementation.

In addition to the financial benefit and saving for the users, they also have an environmental, social and economic value for all the members and the surrounding areas. Neighbours without a suitable rooftop for self-consumption or those who want to increase their percentage of clean energy can do so thanks to this concept. According to the report by *Amigos de la Tierra* (Spanish branch of Friends of the Earth International) "*Energía Comunitaria: el potencial de las Comunidades Energéticas en el Estado español*" (Energy community: the potential of energy communities in Spain), Spain has the potential to cover 60% of its energy demand with energy communities by 2030. Due to the great impact, they will have over the coming years, we believe it is important to establish the following target:

• That **20% of electricity be generated through energy communities by 2030**. This would involve having communities that would amount to 36,000 MW of power in order to cover this energy demand, without annual targets as this term has yet to be transposed into the Spanish legal system.

Section C7.I1 of Component 7 "**Implementation and integration of renewable energy**" of the Spanish government's recovery plan includes an investment in **self**-

consumption, together with storage, worth a total of **€900 million**. Specifically for selfconsumption, the service sector will be allocated **€120** million, the farming sector and industry will be allocated **€175** million, and the public and tertiary sector (social economy, NGO) will be allocated **€215** million. Similarly, in section C7.R3 of the same component, **energy communities** will be allocated a total of **€100** million.

For the 2021–23 period, the **Fundación Renovables** investment line was to enable development elements to install 4,000 MW between 2020 and 2021, bearing in mind that 2020 would have less development. This would represent an investment of approximately **€6.85 billion, with €373 million of public investment for 280 MW in public buildings**. Of this target, the intention was that 1,000 MW would be installed in the residential sector, both in individual and shared installations, with the remaining 3,000 MW going to business sectors. This target does not include the power to be installed in public buildings (280 MW) nor the power to be installed in the agricultural and livestock sector (400 MW), which means the **total target amounts to 4,680 MW**.

Therefore, if the target sector of the public investment is restricted and the proposals are compared, the recovery plan includes only 57.6% of the measures proposed by Fundación Renovables for the public sector. However, it represents a public investment increase in the other sectors and also supports energy communities, but the private investment of €6.48 billion is still not reached.

Energy rehabilitation of buildings

The building stock requires urgent action to ensure the buildings can be used for housing or services as their poor conditions mean they are an energy drain. In this respect, it is one of the causes of energy poverty as it has a direct effect on people's living conditions.

The main targets of European regulations on energy rehabilitation of buildings are to mobilise private and public investment to transform the building stock into nearly zero-energy buildings and establish a roadmap for their decarbonisation by 2050. <u>EU</u> <u>Directive 2018/844 on energy efficiency of buildings</u> and <u>EU Recommendation</u> 2019/876 on building renovations outline the elements that rehabilitation strategies need to combine in order to reach these targets.

However, the progress made in the 2010 and 2018 European directives on energy efficiency of buildings has not corresponded with similar progress in building codes and regulations, nor in electricity regulations or the capacities of the financial system to develop demand and the rehabilitation market.

In Spain, the **PNIEC** proposes saving about 4.75 kt eq of final energy oil from 2021 to 2030. The proposed rate of energy rehabilitation of residential buildings is 30,000 homes per year in 2021, reaching 300,000 per year by 2030. The specification and rate of the proposal is insufficient as it is based on renovating the thermal casing of the buildings without committing to electrification for heating and hot water.

Under Component II "Housing Rehabilitation and Urban Regeneration Plan", the **government's proposal** for investment is €3.42 billion, that is, 50% of the Component's €6.82 billion.

Of this total, €976 million is allocated for the rehabilitation of neighbourhoods, €1.99 billion for buildings, and €450 million for an environment that is suited to rehabilitation activities. The PNIEC target of 300,000 homes per year by 2030 will be used as a guideline, which means starting with 30,000 homes per year and increasing progressively.

The Fundación Renovables proposal has always been a National Energy Rehabilitation Plan demanding more ambition in light of the urgency to renovate Spain's antiquated building stock to ensure they are suitable. For the 2020–2021 period, we proposed tendering initiatives to rehabilitate 808,500 homes: 3.9% of the housing stock of first homes. This target would involve mobilising a total of €20.85 billion, taking €20,000 as an average per home. Of this €20.85 billion, €5 billion would be public for vulnerable homes (with a target of 250,000 homes) and €350 million for public buildings.

Therefore, the €3.42 billion of public investment for rehabilitation set by the Spanish government for 2021–2030 would not cover the €5 billion we propose for vulnerable homes (it accounts for only 68.4% of the total needed to rehabilitate 250,000 vulnerable homes). This could cover the costs for rehabilitating public buildings, but it would still be largely insufficient.

Sustainable mobility and inclusive urban planning

The lines of action to achieve sustainable mobility are not limited to changing combustion-engine vehicles for electric ones, but also include **promoting the implementation of other and new forms of transport** as they are easy to develop and are in demand due to people's climate awareness.

As we saw in 2020, as a result of the restrictions imposed by Covid-19, the lower levels of pollution in cities across the world showed that private combustion vehicles are the main cause of the air pollution we inhale in cities. The two largest cities in Spain,

Madrid and Barcelona, recorded a 75% decrease of cars inside the M-30 in Madrid, and a 77% decrease in the Rondas area of Barcelona (the EC condemned Spain for its excessive levels of pollution in both cities last year).

These figures provide further evidence of the **need to re-organise the country** from one that is currently geared towards private vehicles towards sustainable cities in which pedestrians are given priority. This means providing them with all the services and products in a distributed manner, not in the centralised manner it currently is.

Sustainable mobility

If we focus on the tools created within the Climate Change and Energy Transition Act, the creation of **Low Emission Zones (LEZ)**, among other urban measures, are mainly limited to mobility issues and towns of over 50,000 inhabitants. 148 of the 8,131 towns that exist in Spain contain 68% of the population, meaning the remaining 32% of the population, or 98.2% of the towns, are ignored. The amendments sent by **Fundación Renovables** demanded that they be extended to towns of fewer than 50,000 inhabitants. **Fundación Renovables** also submitted a proposal for standardising the LEZ criteria, with a view to them being implemented no later than 2023.

That is why **Fundación Renovables** believes the current situation, in which sustainable mobility is confused with electric vehicles, must be redirected towards the **concept of reducing mobility under criteria of shared activity and public service**. It is essential to minimise transport needs by making services and local goods more accessible to people, alongside practices of minimum or zero energy consumption and the associated emissions. In terms of mobility, we believe the green recovery must be based on:

Implementing remote working in companies that have sufficient operational capacity to do so, meaning any worker who wants to do this will not find their remuneration affected, and will be provided with the technical training to be able to do this. According to the Greenpeace report "Un año de teletrabajo: su impacto en la movilidad y en las emisiones de CO₂" (A year of remote working: its impact on mobility and on CO₂ emissions), one day of working from home reduces transport emissions by 3%, therefore saving 400 tonnes of carbon dioxide per day in the region of Madrid, and 600 tonnes per day in the province of Barcelona. In order to encourage working from home, we propose reducing the taxable base by 3 percentage points for people who work for a company from home for 60% of their working hours, until the target of 1,000,000 people across the public and private sector has been reached by 2030.

- **Promoting collective public transport**, which needs to become the fundamental axis of the people's mobility systems. It would be based on the availability of a strong network of priority and high-frequency transport that is attractive for people, both due to the conditions of the offer and the elements that put people off public transport and draw people to private transport.
- The electrification of the shared vehicle and urban public transport fleet with a target of 1,525 buses by 2020/21, which would require a public investment of €686 million. Reducing VAT to 10% for the rental of electric vehicles (cars, motorbikes or bicycles) is also proposed.
- **Promoting the use of bicycles**. This needs to be one of the fundamental lines of action, not only for people's health, but also because it is the most suitable mode of transport for the distances covered. The following initiatives are proposed within this line of action:
 - ✓ Construction of 5,000 km of bicycle lanes across Spain between 2020 and 2021, with an investment of €250 million.
 - Reduction of VAT to 10% for buying bicycles. On 20 February 2018, the Spanish Congress of Deputies approved a resolution to reduce VAT from 21% to 10%. This regulation has not passed into law despite the continued requests of the manufacturing sector and user associations. A target of 500,000 electric bicycles was established for 2021.
 - ✓ The implementation of **safe parking in towns**.
- **Sustainable mobility for commuting to work.** Social agreement is another of the challenges that implies unsustainable and unsafe mobility, abandoning the criterion that has been followed until now of constructing more infrastructure and emphasising the management of mobility and services.

Although the previous proposals have been prioritised, there is no question that the **deployment of electric vehicles and their charging infrastructure needs to be strengthened** as their energy needs per kilometre travelled are two times less than those of internal-combustion vehicles, and they also have no emissions. The new fleet of 100% electric vehicles will have an active exchange capacity with the supply network in homes, offices and car parks. This will enable them to act as another vector in managing the demand and storage of electricity. That is why we propose:

Reaching 500,000 vehicles between 2020 and 2021, applying the reduced VAT of 10% to them, and with a private investment of €12.50 billion. With regard to other tax charges, the current tax exemption for vehicles of less than 120 gr C0₂/km would remain, and a discount of 75% on the vehicle excise duty shall be established/maintained in all provinces.

The technological and industrial transformation of the powerful automotive industry in Spain must be one of the lines of economic growth and development for the future, ensuring that reconverting the current factories has the necessary financing and support programmes and guaranteeing a real domestic market for the manufactured vehicles.

At the same time, there must be an **infrastructure of charging systems for the new electric vehicles**, which ensures these vehicles are suitably supplied throughout their journeys, whether within a city or on long-distance journeys. When **installing electric vehicle chargers in a garage or home of a private consumer**, they must be "upstream from the meter". In other words, **they must be installed within the same electricity contract that supplies the home**, so that two different contracts are not needed. The proposal we made for 2020/21 was based on implementing different types of charger depending on the use characteristics of the vehicles and ensuring the following are available:

- Charging infrastructure at installations owned by the user. Private garages with 450,000 units and an investment of €1.35 billion.
- Charging infrastructure, including system licenses, in public parking areas (parking by hour, supermarkets, stations). The target was 50,000 units with an estimated investment of €500 million to carry it out.
- Charging points on public roads via cable or induction connection.
- Electric vehicle charging stations for quick recharging, replacing the current petrol stations.

The Spanish government's recovery plan proposes investing a total of ≤ 13.20 billion under two components: 1) "Sustainable, safe and connected mobility action plan in urban and metropolitan areas" (≤ 6.52 billion); and 6) "Sustainable, safe and connected mobility" (≤ 6.54 billion). Of this ≤ 13.20 billion, an investment of ≤ 310 million would be allocated to the construction of safe bicycle lanes, charging points and the acquisition of clean vehicles.

Meanwhile, ≤ 2 billion will be allocated to the "Charging infrastructure and electric vehicle promotion deployment plan". Of this ≤ 2 billion, ≤ 415 million is allocated to charging infrastructure, with a target of between 80,000 and 110,000 charging points, starting from approximately 5,500 public-access charging points in 2023. With regard to the decarbonisation of the public bus fleet (section C1.I1), ≤ 310 million will be allocated to acquiring zero-emission vehicles (electric, hydrogen) for the urban transport fleet, which will be managed by the town councils.

If we compare the public investment established by **Fundación Renovables** with the reconversion of the **public transport fleet, this figure would, amount to only 45.18%** of the total (€310 million compared to the €686 million proposed by **Fundación Renovables**). Regarding bicycle lanes, it cannot be objectively estimated as the amount allocated is not specifically differentiated in the recovery plan.

In terms of the **charging point infrastructure**, for which we did not set public investment, a good measure is to support its implementation with €415 million. This would be allocated specifically to public charging points, although this measure will need to be supported with private funding to meet the private investment target of €1.85 billion we proposed.

Inclusive town planning

New urban developments and town planning processes must be guided by energy sustainability criteria as this would increase social cohesion and improve people's wellbeing. Cities need to modify their relationship with the surrounding areas and the resource supply systems as cities have proliferated by growing extensively and using significant amounts of resources and land to the point where they become energy drains and the main focal point of contaminating emissions.

Faced with the expansive model, which wastes energy and natural resources, is environmentally unsustainable, destroys public space, and does not guarantee social cohesion, which is typical of a diffuse city, **Fundación Renovables supports sustainability and the consequent liveability of the city as an unavoidable target**. In the new model of a compact, multi-functional, diverse, sustainable, accessible and healthy city that we support, energy plays a fundamental role and cities are seen as key scenarios in which to propose solutions that contribute to global sustainability.

The measures taken in a local setting **absolutely must involve the people, clearly highlighting the local and collaboratively fluid role of companies and councils.** In particular, we must develop the social value of the city through the defence of public space, willingness to reach agreements and the need to establish mechanisms to generate initiatives. We are aware that the proposals included in this chapter are not immediate measures and ones that generate economic activity, but they are essential for the gradual improvement of our quality of life and our adaptation to the behavioural changes the Covid-19 pandemic has imposed. The measures in urban settings must reinvigorate the economy by taking into account the following commitments we demand, some of which have already been mentioned in other sections:

- The implementation of self-consumption, with a target of covering 50% of the electricity demand in buildings by 2030, and establishing 20%, either in execution or tender, by the end of 2021.
- The electrification of the public transport and town council vehicle fleet, which entails tendering 5% of the electric bus fleet for this period.
- The rehabilitation of 5% of the buildings owned by town councils.
- The construction of 5,000 km of bicycle lanes, perfectly differentiated. One of the most transcendental elements to guarantee the role of town councils as drivers of change is to establish a support network by amending the current legal framework.

Digitalisation and modernisation of electrical grids

The modernisation and digitalisation of distribution and low-voltage networks, both upstream and downstream of the user's meter, is an unavoidable measure for the mass implementation of new renewables into the electricity system, and especially self-consumption and demand management. The PNIEC forecasts, which match the **Fundación Renovables** proposals of achieving 5,000,000 electric vehicles by 2030, require a **significant effort to adapt and modernise our electricity system**.

The strong progress towards an electrified energy model and the inclusion of different distributed generation systems naturally entails the emergence of new and several players, which means controlling and managing a greater number of variables in real time. Therefore, **tailored devices must be installed** due to the increased energy exchanges and reduced action time. This requires the system to change its way of working and to increase its response capacity.

The Deloitte report "<u>Hacia la descarbonización de la economía: la contribución de las</u> <u>redes eléctricas a la transición energética</u>" (Towards the decarbonisation of the economy: the contribution of electricity grids to the energy transition) predicts an increased electricity demand in 2030, reaching 350 Twh in total, which is close to the target we set in our report from March 2018. The Deloitte report also reflects the need for between €38 billion and €46 billion of investment in the electricity grid between 2017 and 2030.

Component 8 of the recovery plan "<u>Electrical infrastructure, promotion of smart</u> <u>networks and implementation of flexibility and storage</u>" outlines an allocation of €1.37 billion, of which €525 million (C8.12) will be allocated to the digitalisation of the distribution networks to ensure they meet the requirements for the energy transition. The **Fundación Renovables** proposal for the digitalisation of networks between 2020 and 2021 was the allocation of RAB investments. That means establishing the remuneration from a regulatory asset base **with a distribution budget of €1.5 billion**. We also proposed the requirement of management systems in all rehabilitation projects. The budget for the period, including tendering, must be around €2 billion. In contrast, the €525 million of the recovery plan represents public aid that amounts to just **26.25% of the total proposed by Fundación Renovables**.

Furthermore, our latest report "<u>Democratizar la energía como proyecto de país. Los</u> <u>Fondos Next Generation EU y las infraestructuras del sistema eléctrico</u>" (Democratising energy as a national project. The Next Generation EU funds and the infrastructure of the electricity system) outlined a line of action that uses the Next Generation EU funds to separate the roles of system operator and driver. It also recovers the public nature of the system operator (currently performed by <u>Red Eléctrica de España</u> (REE)) and completely separates the ownership of the electricity distribution networks and the associated service infrastructure from the private companies that carry out liberalised activities (generation and marketing).

As has been proven, we need distribution companies that establish measures not to maximise their financial value, but to provide better services instead. They must also not prioritise the profit of integrated business groups over taking on the challenges demanded by the energy transition. The remuneration of electricity infrastructure is regulated by the recognition of profitability, regardless of its use, which will be 7.3% for the 2020–2025 period, a value that has been set after a small adjustment to the profitability of the previous year. We need to progress towards a **grid system of pay-per-use** to ensure that remuneration is not based on investment in the transport and distribution network, but on actual use by the consumers.

Together with gradually recovering the public ownership of assets and the distribution roles, especially everything associated with towns and cities, this would facilitate the introduction of electric vehicles and energy self-consumption to manage demand, protect consumers and, in short, manage the system with different and transparent signals.

We also demand an **amendment to the access calculation regulations in order to give priority to small generation installations** and move towards digitalisation. This would provide more flexibility in the face of the increasing interaction between consumers and the low- and medium-voltage networks.

Efficiency and equipment

The importance of the air conditioning equipment in terms of providing us with a comfortable temperature means that its decarbonisation is a basic and central proposal, and **high-energy-efficiency systems such as heat pumps** must always be chosen. Committing to this technology will competitively improve the efficiency of heating and hot water energy needs by 50% compared to conventional technology based on fossil fuels. And no greenhouse gases will be emitted.

The PNIEC already believes that heat pumps are a basic element for air conditioning in the future. It has established a target of over 600,000 installations, which would represent a saving of 4 MTep. A plan needs to be implemented to replace heating systems that use fossil fuels with heat pumps. This can be done through:

- Mandatory incorporation in buildings which are rehabilitated, promoting integral hot/cold air conditioning.
- Development of a plan to replace boilers with heat pumps while maintaining the heat distribution system and minimising the amount of work needed to install them.

More-efficient equipment

Another line to be encouraged is the **replacement of less-efficient equipment with more-efficient equipment**, given that the efficiency of equipment is constantly developing. This support should be used to encourage the incorporation of efficient equipment which implicitly entails responsible and sustainable consumption as generation of value. The risk of scrapping equipment as a solution, without planning its treatment and recovery, is always taken into account. In this respect, we highlight the following line:

 A plan to replace white goods and small appliances, following the provisions for energy labelling in <u>EU Directive 2010/30</u>, including the lines of support/penalties according to the efficiency of the equipment.

Component 11 of the recovery plan exclusively outlines funding of \pounds 1.07 billion (C11.I4) for the Energy Transition Plan in the Central Spanish Government for the "implementation of energy saving and efficiency measures that reduce basic energy consumption by at least 30%, with respect to the initial situation. It does not outline aid for efficiency plans in other sectors, such as the domestic or commercial sectors.

The Fundación Renovables proposal was to bring forward plans of action so that, in addition to rehabilitation plans, **100,000 heat pumps** are installed in both homes and the service sector between 2020 and 2021. This would account for a private investment worth approximately €600 million. The recovery plan does not set any specific funding line for the replacement and installation of heat pumps.

Furthermore, this line of action has only established the need to set an allocation for calculation in 2021 and 2023 in order to promote the acquisition of efficient electrical appliances under the criterion of setting VAT at 10% for those with an A certificate, regardless of the funding lines for consumer equipment that are established.

Rural areas and organising the land for renewables

Spain has a total land area of approximately 50.5 million hectares, but only 45% (23.2 million hectares) is considered Used Agricultural Area (known by its Spanish acronym, SAU). Of this, 15.6 million hectares is tilled land (76% dry land and 24% irrigated land) and 7.6 million hectares is pastures, and this is without counting the 11.5 million hectares of woodland which needs to be preserved and managed.

The current agri-food system is based on an industrialised and intensive agriculture and livestock model that requires huge amounts of natural resources (materials, water and energy). **Fundación Renovables** believes that sustainable means of agricultural and livestock organisation and technology need to be implemented.

With regard to **energy**, in order for renewables to penetrate broadly, quickly, effectively and efficiently, we need them to be integrated across the country so none of the agricultural production capacity is lost. Integration/inclusion across the country leads to social inclusion. It is essential for **rural communities to experience the change of model as something of their own, with regard to their participation in both the generation/consumption process and generation for passing on to the grid**. Specifically, we believe the following action criteria need to be borne in mind:

Organisation of the land

In May, **Fundación Renovables** published the report "<u>Territorio y renovables. El</u> <u>desarrollo de las grandes plantas bajo criterios de inclusión territorial</u>" (Land and renewables. The development of large plants under criteria of territorial inclusion), which summarised the views expressed at the Executive Board meeting on the current issue of expanding renewable generation installations across Spain. The document outlines the need to find the balance between centralised facilities, and distributed generation and self-consumption, in its broadest sense. It emphasises the need to respect the environmental value, promote diversification of players, and make towns participate in the energy transition.

The following are some of the lines of action to come from the report:

- Create **sectorised and quantifiable targets** of self-consumption and energy communities, both in the PNIEC and in the future Spanish National Self-Consumption Strategy.
- Create **socio-economic zoning** as a tool to improve the perception of renewables and avoid opposition to large projects.
- Make participatory and transparent environmental impact assessment procedures with a broad social basis, which determine the development and control elements to be reviewed by an authorised body. They must include all types of variables, analysing the economic, social and cultural impacts, and proposing alternatives that improve the implementation results.
- At a regional and local level, the technical capacities of local bodies must be strengthened to improve their energy strategy, making them aware of the positives and negatives of each technology.
- Work to **increase the capacity in medium- and high-voltage networks**, prioritising hybridisation (photovoltaic with wind power, flowing hyrdoelectric power, etc.) and storage.
- Amend the access calculation regulations in order to give priority to smallgeneration installations and move towards digitalisation. This would provide more flexibility in the face of the increasing interaction between consumers and the low- and medium-voltage network.
- Establish a methodology of **land consolidation** which farmers can use and whose sites do not reduce agricultural production.

Energy development

- The **development of self-consumption and distributed generation**, especially in rural settings, with a target of 400 MW for the period, which represents an investment of €480 million.
- Commitment to creating energy communities in rural settings.
- All irrigation and livestock facilities must operate with renewable energy, incorporating this condition as a basic requirement for obtaining necessary permits.

- The necessary implementation of **digestion systems for treating livestock waste** at large facilities, based on a predetermined size, and greater control of dumping on cropland for compliance with volumes per hectare and time.
- Considering investments in renewable energy in livestock, agricultural and forestry operations as eligible for income tax purposes under the objective direct assessment method, including an additional deduction of 20% of the investment on the repayment instalment of this investment for the 2021 and 2023 financial years.

Section C3.I4 of Component 3 "Environmental and digital transformation of the agrifood and fishing sector" of the recovery plan includes an allocation for investments in precision agriculture, energy efficiency and the circular economy, and for the use of renewable energy and gases in the agriculture and livestock sector worth a total of €307 million from the MRR (Monthly Recurring Revenue), with an estimated private capital contribution of €269. The full provision for Component 3 is €1.05 billion.

Beyond the requirement of a suitable organisation of the land and investment to provide administrations with technical capacities, **Fundación Renovables** believes this contribution for the expansion of distributed renewables in the agri-food sector is largely insufficient given that public investment will allocate only €38 million, which **would cover only 7.8% of the €480 million proposed to reach 400 MW** of self-consumption and distributed generation in rural settings.

Conclusions

Measures for a green, inclusive and social recovery



Conclusions

On 16 June, Brussels gave the go-ahead to the recovery plan and its starting budget for 2021, but with a reduction of €8 billion (from the €27 billion provided for in the 2021 Spanish General State Budget to the €19 billion which will be granted) and with €9 billion as an advance payment in July (initial payment still depends on the document also receiving the go-ahead from the EU's Economic and Financial Affairs Council (ECOFIN), which is forecast for mid-July).

There will be conditions for the remaining €10 billion, which is forecast for October or the end of the year and which will require a series of 50 milestones. Some of these have already been achieved by the government given that they can include measures adopted since February 2020. Even so, some issues remain, in particular reducing the temporary nature of the public sector, the entry into force of the Climate Change and Energy Transition Act, and the installation of electric car charging points. The biggest payout is expected in June 2022 and will reach €12 billion, so we still have time.

The total amount of the public investment measures proposed by **Fundación Renovables** for 2020–2021 reached €4.12 billion, far below the €9 billion granted by Brussels in July 2021. Taking into account that the energy sector is not the only target for the Next Generation EU funds, the investment in the proposed measures and lines of action, under the concept of inclusion and criteria set for an inclusive green recovery, **is vastly insufficient for a green, equitable and social reactivation for 2021– 2023**.

This is because the recovery plan gives greater priority to measures and sectors that we believe do not focus on or revert to society or to the generation of social and economic value distributed across the whole country. A **very serious example is considering green hydrogen as a national project** (as defined in Component 7, provided with €1.55 billion) as it lacks a degree of social inclusion and does not generate local economic activity in a distributed way. This is in contrast to photovoltaic energy, which does so through the different forms of self-consumption and energy communities, in addition to its modular capacity and low costs. This jeopardises the change to a decentralised energy model by maintaining large electricity companies' structural control, therefore enabling them to hold the economic and decision-making power and control the rate of the energy transition.

Although it is clear that it is an alternative energy source for sectors with a high energy demand that cannot be directly electrified, as is the case in large industry, such as steel

mills, cement plants, etc. (which caused 20.6% of Spain's emissions in 2019), increasing demand can lead to an oversizing of the renewable energy supply in large plants, dumping surpluses for the generation of green hydrogen. Then, the consequences associated with the land and private property would be in the hands of large investment groups.

With regard to the targets proposed by **Fundación Renovables** and bearing in mind that they were annual targets whereas the recovery plan targets covered the period of 2021 to 2026, increasing the low investment percentages that are seen when comparing the recovery plan with our proposal of public investment in the established lines of action must be a priority. Therefore, it remains essential to **facilitate, plan and promote self-consumption at all levels** (shared and individual), in addition to **committing to distributed generation with renewable energy, the energy rehabilitation of buildings** to stop Spanish cities being energy drains because of the age of the housing stock, **measures based on active sustainable mobility and decarbonisation of transport**, which is an opportunity to establish a pioneering and leading technological industry for batteries and electric vehicles, and **improving the efficiency of equipment and infrastructure** to encourage digitalisation.

The projects selected to receive funds are yet to be made public, so we still have the chance to redesign a real green, inclusive and social recovery if there is a real willingness to make it happen.

With the initiatives proposed and **those analysed in the Spanish government's recovery plan**, the feasibility and coordination to start working to secure EU funds, in addition to reinforcing and being an **historic** opportunity, would facilitate progress towards a more equitable, sustainable and resilient socio-economic model.

To a large extent, the future and the socio-economic system of future generations depends on making the right choice.

Conclusions



Pedro Heredia 8, 2° Derecha 28028 Madrid

www.fundacionrenovables.org

