

VIDEO VOICE TRANSCRIPTION OF “HACIA UN PLANETA VERDE”

Statement 1: “We have bought into a crazy consumption model that has brought our planet to the verge of collapse.”

Statement 2: “Climate change is one of the great challenges facing humanity. And its solution requires an energy transition towards a carbon-free model”.

Statement 3: “It is also essential for us to be aware of the costs that are associated with environmental disasters caused by the use of fossil fuels.”

Statement 4: “This is fossil-based energy and, as its name suggests, it needs to make way for the new energies.”

Statement 5: “Any transition of this type must be fair and just.”

Voice-over: “Fossil fuels –coal and oil– are behind the greatest economic, technological and social development in the history of humanity. Coal was the main source of energy behind the First Industrial Revolution. It made possible the steam engine and the iron and steel industry, the amazing leap forward of modern societies. Oil and gas were the driving forces behind the Second Industrial Revolution and spectacular developments in transport.”

Manuel Planelles, journalist and expert in the environment, climate change and energy: “Coal has been the life blood of Western economies since the Industrial Revolution.”

Pedro Linares, lecturer at Universidad de Comillas ICAI and Director of Economics for Energy: “If it were not for the problems caused by greenhouse gas emissions and their effect on the quality of the air we breathe, fossil fuels could very well be said to have been one of the greatest gifts given to humanity.”

Voice-over: “Coal from underground and open-cast mining gave rise to key events, such as the creation of the European Coal and Steel Community (ECSC). Since 1951, after the devastating world wars, the European Community project inspired an economic and social miracle. Indeed, the origin of the production model that underpinned the welfare state was based on oil and coal. However, such progress came at a price.”

“For centuries our civilisation has been mining the earth for fuels that took millions of years to fossilise. Unrelentingly. Unceasingly. The results of this intensive exploitation are becoming increasingly obvious.”

Álvaro Rodríguez, Managing Director of the Climate Reality Project in Spain: “We are often asked, ‘What will happen when fossil fuels run out?’. And I always answer in the same way: Fossil fuels will never run out. The Stone Age did not end because the stones ran out; there was simply a technological change, which is what is happening now.”

Voice-over: “Burning fossil fuels continues to generate enormous amounts of greenhouse gases, mainly CO₂. These gases are accumulating exponentially in the atmosphere, retaining heat and causing the greenhouse effect, an increase in the Earth’s temperature and climate change.”

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Pedro Linares: “Science has been slow to stabilise and get down to facing the problem of climate change. In fact, back in the 1970s, there were people who were saying that we were moving towards a new ice age. A lot of science and analyses have been required to make us understand the consequences.”

Voice-over: “Ever since 1880, global warming can be explained by the actions of mankind. Burning fossil fuels has been the main cause. Of course, deforestation and changes in land use have also played their part. There is also the degradation of natural ecosystems, such as the oceans and forests, which act as natural sinks for these gases.”

Víctor Viñuales, sociologist and Director of ECODES: “The future has not yet been written. Things are very bad and climate inertia is very bad too. In fact, climate disasters are becoming commonplace. Last year was particularly revealing in this sense, with events occurring at a much faster rate than expected: the hurricanes we saw in the Caribbean, the catastrophic wildfires in California, the heat waves we had in Spain, and so on. What I mean is, there are loads of examples of how the climate is simply going mad.”

Íñigo Losada, Director of Research at IH Cantabria and member of the Inter governmental Panel on Climate Change (IPCC): “When you go for a stroll around cities like Santander, Madrid or Bilbao, it’s as if the issue of climate change is something that does not affect us. But we work in many parts of the world, from people who live in the Andes to others living in island countries like Tahiti, to mention just two, all of whom are experiencing the effect of climate change at first hand. It is affecting their way of life, increasing their risk of exposure to natural events, impacting their economic development, affecting their health...”

Álvaro Rodríguez: “And this is really just the beginning. We are talking about preventing Bilbao having temperatures like those they have in Seville today. Or Seville becoming the new Mali. That’s what we are facing.”

Voice-over: “The consequences of climate change have become startlingly obvious: extreme weather conditions, a rise in the sea level, shrinking ice at the poles and increasingly more intense and longer lasting droughts.”

Pedro Linares: “When you take a look at the emissions in a country like Spain, you realise that a lot of them come from the residential sector, in other words, homes, while another cause is transport, which is to say, homes again! Our analyses found that 40% or 50% of the greenhouse gas emissions in Spain depend on how the family behaves, the behaviour of homes, of us as energy consumers.”

Voice-over: “What’s more, all these sources of emissions, mainly the burning of fossil fuels, have a very negative impact on air quality, particularly in the cities. In fact, according to the latest World Health Organization, air pollution has caused over six and a half million premature deaths worldwide.”

Isabell Büschel, Manager of Transport and Environment in Spain: “We can see how hospital admittance rates for heart and respiratory problems rise during periods with high pollution. Indeed, there are cases being reported of infertility and low birth weights in areas with bad air quality...”

Voice-over: “The way we travel around has a significant effect on this poor air quality. There are over 1.2 billion vehicles in the world today. In Spain alone there are over 28 million, many of which are highly polluting.”



Isabell Büschel: “The transport sector is the biggest emitter of greenhouse gases. National authorities have clearly failed to observe air quality limits. We are asking for increases in road taxes to implement the ‘polluter pays’ principle.”

Voice-over: “Bearing in mind that there will be a world population of over 9 billion by 2050, mostly living in cities, there is little doubt that energy and transport demands will rise. As we are aware of these problems, the developed world is trying to stop using fossil fuels, which account for over 80% of the total primary energy supply worldwide. This energy model is no longer sustainable. We urgently need a new energy architecture to ensure a sustainable lifestyle for the millions of people who have become accustomed to an inexhaustible consumer economy mainly based on coal and oil.”

Álvaro Rodríguez: “The Earth is really a finite space. Therefore, aspiring to endless growth in a limited space is physically impossible. Our consumption model must change.”

Víctor Viñuales: “We have to come up with a development model that is good for the economy, the environment, our health and our very lives. That is the equation that needs to be solved.”

Voice-over: “Fortunately, change is possible. Competitive technological solutions are emerging based on renewable energy production: solar, geothermal, hydroelectric power and, above all, wind power, both on-shore and off-shore.”

Juan Virgilio, Managing Director of the Wind Power Business Association (AEE): “It is now one of the established technologies. It is no longer a future option; it is the present. Indeed, it is one of the technologies that, besides covering the demand for electricity, provides an industrial base, as Spain is at the vanguard of wind turbine production.”

Voice-over: “Wind power is the strongest performing renewable energy in Spain. It currently generates electricity for over ten million homes, while at the same time employing over 22,000 people.”

Manuel Planelles: “Spain is one of the countries that generates the most power using wind technology, for example. We have ongoing experiments, such as El Hierro, where a combined hydroelectric and wind system has been installed that has enabled the use of only renewable energy sources for several days in a row. In fact, a powerful industry is growing around the wind power sector, in which Spain has become an international benchmark.”

Voice-over: “The time has come, therefore, for clean energy. An environmental model based on energy transition must necessarily involve decarbonisation and lead to a green economy. The UK, for example, is successfully moving on from coal-based electricity generation. How did they do it?”

Manuel Planelles: “They are simply telling the energy companies, ‘For every tonne of CO₂ you emit you are going to have to pay me £18 –about €19.’ This has made the use of coal unprofitable for power generation companies, which have practically discarded it from their energy mix.”

John Gummer, Chairman of the United Kingdom Committee on Climate Change: “What the Conservative government has said is that there cannot be adequate growth unless it is accompanied by green growth. And they point to the fact that the main areas of growth in our economy have been green ones. That is exactly where we are growing. And Paris underscored the fact that nobody is going to buy things any longer unless they are more energy efficient.”

Voice-over: “If we want to meet the Paris goals before 2050, Spain needs to reduce its emissions by at least 90% from the levels in 1990. Electrification is the solution. The technologies are already there.”

Juan Virgilio: “That’s right. The path to decarbonisation leads through electrification. Therefore, the electricity sector needs to lead the way, because it is the one that will have to cover the future demand for electricity.”

Voice-over: “Nobody can predict the future. But it is very likely that the noisy, polluting, internal combustion engine cars of today will soon be a thing of the past. To achieve complete decarbonisation electric transport must be the norm. It’s just a question of time.”

Arturo Pérez de Lucía, Spanish Association for the Development and Promotion of Electric Vehicles (AEDIVE): “For me, the future of road transport is very clear: shared, connected, autonomous electric vehicles. That’s the way we are going”.

Isabell Büschel: “There are only electric buses in the Chinese city of Shenzhen. These are currently competing with gas-fuelled buses in Spain, which have been promoted quite a lot recently, even though this is still a fossil fuel.”

Arturo Pérez de Lucía: “You can save up to ten times more by using an electric vehicle instead of an internal combustion one. What’s more, you don’t have to spend practically anything on maintenance. Take the brakes, for example. You have regenerative braking, which allows you to power the vehicle simply by lifting your foot off the accelerator. So, there are no engine components, because it does not have one. And there’s virtually no maintenance. For instance, I have a 170 hp car that goes about 1,500 km a month, and it costs me only €23.”

Voice-over: “Nonetheless, the transition to electric vehicles will not come immediately. The fact is that in Spain there are only 36,000 [electric] vehicles, though this number is set to reach the 150,000 in 2020. A lot of European cities have decided to electrify road transport. Madrid is one of these, with its 300,000 users of electric vehicles, between public, shared and private ones”.

Arturo Pérez de Lucía: “It should also be pointed out that Spain is the industry and technology leader in implementing electric mobility solutions. We are spearheading the making of light-duty vans and are the world leaders in the production of mopeds and motorbikes. Indeed, we are also ranked number one in manufacturing electric vehicle charging infrastructure. Not to mention the fact that we are also managing to keep ahead of the pack with our innovative battery manufacturing, something that will be rolled out in Spain very soon.”

Voice-over: “There are many sectors already anxious for decarbonisation, i.e., a gradual transition from a fossil-fuel based energy model to one driven by renewable energies. A progressive and orderly transition, as is already taking place in several European countries.”

“The Paris Agreement of 2015 undertook to reduce emissions in the 195 signatory countries, which was a giant step in the global battle against climate change. But the United Nations has warned that these measures will not be enough unless more ambitious policies are implemented. This explains why the French president, Emmanuel Macron, called more than 50 heads of state and government together in December 2017 to ask for greater political and economic involvement to speed up the decarbonisation of the economy.”

Tatiana Nuño, manager of the Greenpeace campaign against climate change: “We are seeing a very big worldwide movement urging for disinvestment from fossil fuels. There is also a very important international platform calling for all new investments in banks, universities and public funds to take the money and funds from fossil fuels and redirect them to renewable energies and a carbon-free future.”

Emilio Ontiveros, lecturer in Economy at the UAM and founder and Chairman of AFI: “You could say that the investment community is increasingly and most decidedly opting for sustainable financing. This explains how the demands of the Paris Agreement are becoming increasingly more binding on the world economy as a whole. Because it is the observers, the investors, the shareholders, even the employees, the NGOs, civil society, and so on, who are increasingly scrutinising the level of compliance of industry, and financial services in general, with these demands.”

Voice-over: “Some 20 countries, led by Canada and the United Kingdom, got together at the climate change summit in Bonn in November 2017 to speed up clean growth with an initiative to promote swiftly phasing out coal fired power stations. Called *Powering Past Coal*, this alliance has also brought together regional governments, institutions and companies from around the world.”

Marta Martínez, Director of Energy Policies and Climate Change at Iberdrola: “We signed up to this alliance because it naturally dovetails with our strategy. For over 16 years ago now, Iberdrola has been strongly committed to renewable and clean energies. Indeed, climate change is currently one of the basic pillars of growth in our Group. During this time, we have closed our oil and coal fired power plants, while at the same time pursuing a very strong programme of investment in renewable energies. Today, of the Group’s generation mix, nearly 30,000 MW are installed in renewable energies, mainly wind and hydroelectric power. Our future direction is clear: to continue along this path. We have explicit, ambitious goals set for both the medium and long term and will continue to invest in transmission and distribution networks, as well as in digitalisation. These are key areas of a carbon-free energy model.”

Voice-over: “Iberdrola is a company that has progressively shut down all its oil and coal fired power stations and recently announce the closure of the last two. Initiatives of this type to shut down coal fired power stations, currently the most polluting type of power generation, can also be found in the United Kingdom, Italy and Finland. Investors are beginning to look to the long term and are increasingly pressuring companies to opt for decarbonisation through sustainable financing. The economic world is conscious of the fact that climate change is imposing a new world order that can have a positive impact on business. Larry Fink, chairman and CEO of BlackRock, the world’s largest fund management company, has asked companies for long term strategies that focus investment on sustainable financing, without giving up financial gain.”

Emilio Ontiveros: “It could be said that the fact that the biggest investment fund in the world is prioritising investment in sustainable projects represents one of the most conclusive signals to the private world that they should wake up to these types of investments.”

Voice-over: “Insurance companies like AXA and international banks have already announced their withdrawal from financing coal assets. And the World Bank will stop financing gas and oil extraction as of 2019. Meanwhile, a huge group of investors has launched the Climate Action 100+ initiative to monitor the 100 biggest multinational greenhouse gas emitters and green bonds that promote investment in sustainable projects are becoming increasingly popular.”

Emilio Ontiveros: “The advantage of green financing, of climate bonds, is not only that financial resources are being allocated to a specific purpose, namely, the reduction of emissions, but they are being subject to more and closer scrutiny by investors. But the big surprise in their favour is that the financing conditions for companies that use green financing are slightly better than more for conventional financing.”

Voice-over: “Investors and the general public can change things. In fact, a climate litigation movement has arisen in recent years. Thousands of citizens are filing actions against their governments for their passivity in the face of climate change. In countries like the United Kingdom and Germany, the justice system has started to find in favour of civil organisations that are calling for better air quality”.

Ana Barreira, Director of the International Institute for Law and the Environment (IIDMA) “This happening in the United States in particular, but there are also examples in Europe, such as in the Netherlands. Indeed, there is already a ruling declaring that the Dutch government was not been taking appropriate measures against climate change.”

Voice-over: “To mitigate the impact of climate change in Spain we need to adopt more ambitious measures, above all as regards power generation and transport.”

Manuel Planelles: “We in the mass media need to exert more pressure on these countries to make them more ambitious. We need to keep on top of them so that we can inform society whether or not they are meeting their commitments and pursuing ambitious policies.”

Voice-over: “Civil society is also organising itself into movements such as ‘Europe Beyond Coal’. This platform is calling for the phasing out of coal and is working actively towards closing down Europe’s most polluting power stations by 2030.”

Manuel Planelles: “If we believe that we must decarbonise our economy and our energy system, all government departments need to be involved and a clear route mapped out.”

Voice-over: “Now more than ever, gradual decarbonisation requires a just transition to building a different energy and industrial model that leaves nobody behind. The European Union has therefore recently launched a package of economic measures for mining areas in transition. Measures that will be linked with other regional and national measures.”

Pedro Linares: “Any transition of this type must be fair and just. It has to help those who are going to be displaced by this paradigm shift. A society like ours needs to care for those who are left behind in any transition or development process. Obviously, there have to be solutions for those who are going to suffer from our abandoning fossil-based energies; people who are suffering from energy poverty, for instance. What I mean is that there are winners and losers in any transition process and we have to ensure that the winners help out the losers.”

Tatiana Nuño: “There are success stories of energy transition from the world of coal itself. One of these, for example, is that of Loos-en-Gohelle in France, said to be one of the most successful cases to date. There they opted for phasing out coal and diversifying employment, from waste to water management, renewable energies, research and so on. What they have done is to commit to different lines of job creation, putting people and the environment at the centre of their endeavours.”

Víctor Viñuales: “The reality is that the change equation is simple, i.e., ‘will to change’ minus ‘resistance to change’ is equal to ‘real transformation taking place’.”

Voice-over: “There are also cases of successful change in Spain, such as the state-owned shipyard Navantia and the Windar Renovables business group, which changed from producing fossil energy equipment to making wind turbines.”

Orlando Alonso, Executive Chairperson of Windar Renovables: “Given Spain’s wind and solar resources and the support the government of the time was going to give to these types of energies, renewable

energies, we studied the market for possible technologies that would enable us to improve our processes and become more competitive in this sector.”

Víctor Viñuales: “What had to be done was to come up with a conspiracy, ‘Change accomplices’, who infiltrated all sectors, government departments, companies, NGOs, town councils, and so on; a conspiracy that brings together people who dream of a good development model for the planet and one that is good for us too; a conspiracy driven by the desire to create a new world.”

Manuel Planelles: “In Spain, we have the technology, we have the companies and, above all, we have the renewable sources, sun and wind.”

Marta Martínez: “Energy transition and climate change are creating opportunities and the most must be made of these.”

Tatiana Nuño: “Society needs to call for a democratic energy model.”

Pedro Linares: “Obviously, what would be needed is that everybody should sit down together and put on their high beams, look at the long-term picture, and say, ‘This is where we want to go. Now what do we need to get there?’”

Voice-over: “Burning fossil fuels has led to the mankind's greatest development. But it has also caused climate change. We need to find another way to live, to move around, to consume. We need a different relationship with energy. This is the age of the green planet.”