

HISTORY OF ENVIRONMENTAL POLICY IN GERMANY: CDU PERSPECTIVES 1958 – 2015



History of Energy and Climate Energy Policy in Germany: Christian Democratic Union perspectives 1958-2014

©Konrad Adenauer Stiftung (KAS) Av. Larco 109-111, 2do piso, Lima 18-Peru Email:kasperu@kas.de URL:<www.kas.de/peru> Phone: (51-1)416-6100

© EKLA-KAS Programme Calle Cantuarias 160, Oficina 202, Lima 18-Peru Email: Energie-Klima-La@kas.de URL:<www.kas.de/energie-klima-lateinamerika> Phone: (51-1) 320 2870

Original text: Zeitmaschine Umwelt <www.adenauercampus.de/web/guest/zeitmaschine-umwelt> Adenauer campus- Konrad Adenauer Stiftung e.V.

Translator: Valeria Lozada Editor: Dr. Christian Hübner Designer: Jhonny Chumpitaz - Ronald Cotillo Proofreader: Annie Ordoñez

Pictures: ©Bundesarchiv, B145 Bild-F009346-0008/ Steiner, Egon via Wikimedia Commons (page 6), ©Stiftung Hausder Geschichteder Bundesrepublik Deutschland (page 8), ©ÖDP (ÖDP) via Wikimedia Commons (page 10), ©KAS (page 12), ©KAS (page 14), ©CDU via Wikimedia Commons (page 15), ©http: www.faz.net/aktuell/gesellschaft/bilder-ausdem-katastrophengebietder-lange-schatten-von-tschernobyl-12924434.html (page 17), ©CDU/ KAS- ACDP (page 19), ©picture-allianc31e/dpa,kas.de (page 22), ©KAS (page 23), ©SvaRoM (own work), via Wikimedia Commons (page 25), © By TorstenHenning, via Wikimedia Commons (page 27), ©Marian Sigler, via Wikimedia Commons (page 28), ©KAS/ACP1-0-031- 869 (page 31), © SvaRoM (own work), via Wikimedia Commons (page 31)

No part of this publication may be reproduced in any form or by any means without permission of the publishers.

Index

I.	HISTORY OF ENERGY AND CLIMATE POLICIES IN GERMANY	
	EditorialPág.	4
1.	Early implementation of energy and environment policies	
	February 22, 1958 Pág.	5
2.	First oil crisis	
	November 25, 1973Pág.	7
3.	Herbert Gruhl publishes "Ein Planet wird geplündert" ("The Plundered Planet"	')
	September 25, 1975Pág.	
4.	CDU's first political program	
	October 25, 1978Pág.	11
5.	«Stuttgarter Leitsätze» (Stuttgard Principles)	
•	May 11, 1984Pág.	13
6	Catalyst introduction	10
0.	September 19, 1984Pág.	15
7	Chernobyl and its consequences	15
/.	April 26, 1986Pág.	16
0		10
а.	BMU establishment/Walter Wallmann	10
•	June 06, 1986Pág.	18
9.	Töpfer swims in the Rhine	
	September 14, 1988Pág.	20
10.	CDU document "Unsere Verantwortung für die Schöpfung"	
	(Our Responsibility Towards Creation)	
	September 13, 1989Pág.	23
11.	Electricity Feed-in Act comes into force	
	1991Pág.	24
12.	CFC prohibition	
	May 6, 1991 Pág.	26
13.	Rio Conference	
	June 14, 1992Pág.	28
14.	Recycling Management Act	
	September 27, 1994Pág.	29
15.	Angela Merkel becomes Minister for the Environment	
	November 17, 1994Pág.	30
16.	"Meseberger Beschlüsse" (Meseberg Decision)	
	August 23, 2007Pág.	32
17.	Adoption of "Beust-Papiers" (Beust Paper)	
	December 2, 2008 Pág.	34
18.	Federal goverment energy concept	
	September 28, 2010Pág.	35
19.	Fukushima catastrophe	
	March 11, 2011Pág.	37
20.	Coalition agreement between political parties in Germany	
	December 14, 2013Pág.	39
	,	
II. GERMAN ENERGY AND CLIMATE POLICY TO 2014		
	IntroductionPág.	40
	A Christian Democrat retrospectivePág.	
	Energy transition	
	Climate change adaptationPág.	
	PerspectivesPág.	

I. History of energy and climate policies in Germany

Editorial

This document presents the major milestones in Germany since 1958, when the first federal government under CDU's Konrad Adenauer administration pushed a strategy to solve the first coal crisis which, along with the subsequent oil crisis, led to consider the use of alternative energy. By putting the limited resources in political debate, he managed that the first CDU's political program in 1978 stated that "... the conservation of our life support system is part of the responsible liberty. He who now irresponsibly exploits this system and alters the environmental relationship, damages the solidarity between generations". This is considered a pioneer concept for conceiving environmental protection as fundamental for national political strategies.

Over the years, events such as the nuclear disaster in Chernobyl, the adoption of documents such as *Unsere Verantwortung für die Schöpfung* (Our Responsibility Towards Creation), and the Electricity Feed-in Act, so as world-class events like the Rio Conference in 1992, or Angela Merkel's rise —from her appointment as Ministry of the Environment until her current position as Chancellor— have demonstrated that environmental issues are present in social and economic decisions so as in national and international policy formulation, constituting the main challenge for human race survival in Creation.

Dr. Christian Hübner

1. Introduction to the early energy and environmental policy

February 22, 1958

Beginning of the coal crisis:

The first unworked shift (irregular shift due to lack of demand) begins on the coal pint Rosenblumendelle in Mülheim an der Ruhr, workplace for around 5000 "buddies"

Details:

The origin and the political use of the German coal crisis illustrates which changes of significance have been experienced in both environmental and energy policies since the founding of the Federal Republic of Germany. Until well into the 1960s, neither the environment nor the area of energy supply (today closely related with climate change issues) were considered as policy fields. The organization of the German energy system was rather a fundamental part of economic policy and it initially addressed the macroeconomic needs of the post-war Germany: primary objective was to reconstruct the German energy infrastructure, thus eliminating the prevailing energy shortages. On environmental concerns such as the contamination of soil, water resources, and air through emissions from power plants and industrial facilities scant regard was taken.

The first federal government under Chancellor Konrad Adenauer CDU pursued a consistent strategy of "focusing on domestic energy" sources" such as lignite and hard coal ("coal economy"). The power supply should be configured to be crisis-proof and as inexpensively as possible. The government promoted mainly coal mining in the 1950s to meet the growing demand for energy, which was a result of the German "economic miracle". However, the thereby resulting oversupply posed at the moment a problem, as the price of oil drastically decreased and mineral oil began to replace coal as first industrial energy source. Also, the German hard coal was no longer competitive with imported coal, since the wage and use costs in the Federal Republic of Germany had led to very high price levels. Direct consequence of the coal crisis were the numerous closures of mines and steel works, especially in the Ruhr area. Within the next ten years more than 70 mines closed and, until the early 1970s about half of all German "buddies" lost their jobs. Politicians responded with high subsidies (eq "carbon taxes" in 1974) and extensive social measures. In the 1960s, competition between oil and domestic coal intensified even further. Even with a massive coal priority policy, characterized by a strong taxation of petroleum products, competitiveness of coal could not be restored. By 1970, the proportion of mineral oils in

Germany's primary energy consumption rose to 53%. The struggle of the German policy for the preservation of structures with coal mining, which should be continued despite its inefficiency, shows the former weighting of energy policy objectives. The focus was exclusively on the balance between the principles of security of supply and the profitability (and social compatibility), that collided within the coal crisis. The today regarded as equivalent objective of environmental still did not matter.

The growing import dependence of foreign sources of energy in the Federal Republic concomitant with the consequences of the coal crisis, derived in the development of one of the to one of the biggest environmental issues in the 1970s: the massive entry of nuclear energy as the second pillar of the energy system, for the coal crisis had encouraged all German parties to the assumption that the construction of larger parks of nuclear power stations could make an important contribution to the domestic energy supply.



Links: Pictures and articles on line:

http://www.ruhrgebiet-regionalkunde.de/aufstieg_und_rueckzug_der_montanindustrie/krise_des_montansektors/krise_ montansektor.php?p=3 History of coal mining:

http://www.planet-wissen.de/laender_leute/nordrhein_westfalen/steinkohlebergbau/



November 25, 1973

Citizens stroll on empty highways:

As Arab States curtailed oil exports in October 1973, oil prices rose dramatically. The federal government responded with the law on Sunday day ban on highways.

Details:

The first oil price crisis shook the entire Western world countries and showed the heavy reliance of modern industrial countries on "black gold". This crisis had triggered a huge impact on both the international (including the founding of the International Energy Agency) and the German Energy Policy. Yom Kippur War between Israel and the Arab states of Egypt and Syria started on October 6, 1973. In response to this war, the Arab dominated Organization of Petroleum Exporting Countries (OPEC) decreased



oil flow rates significantly in order to protest against the support given to Israel by many Western countries. The measure adopted by OPEC quadrupled, during the course of a year, the price of a barrel of crude oil. Many Western industrialized countries faced a severe economic crisis. The federal government then tried to severely restrict the energy consumption in Germany and appealed to the responsible use of cars, electricity and heat. Not for environmental reasons, but to maintain the mobility of the economic activity in the Federal Republic. The most visible and to this day unforgettable sign of this effort was the so-called car-free Sundays, which were introduced in addition to numerous other energy saving measures on the basis of the Energy Security Act adopted on November 9, 1973. The first of these Sundays was November 25, 1973.

The first oil price crisis changed the attitude of the policy and the society towards fossil and thus finite energy sources. The government was now trying new ways to secure the power supply and invested, for example, in the promotion of alternative fuels such as biodiesel or the exploration of new energy-efficient measures. The oil crisis also seemed to confirm the need for nuclear power in resource-poor West Germany. The first "energy program" of a federal government, which was developed even during the oil crisis, made nuclear energy a central part of the energy supply, which should not replace oil as main energy supply. The program provided the construction of nuclear power plants with a total capacity of 45,000 megawatts that should generate in the medium and long term an energy mix from coal, lignite and nuclear power.

However, the first oil crisis can be regarded as a kind of "birth" of renewable energy. The idea of an energy revolution, that is a departure from both fossil and nuclear fuels in Germany, has its roots here. In response to the first oil crisis and inspired by research projects of the US government under Jimmy Carter presented the Federal Ministry of Research the framework program "Energy" Research" that had by 1974 already about 10 million DM for the study of renewables. Individual technologies, especially the photovoltaic were promoted, but a targeted expansion in the context of an overall approach was not up for debate. Also, there was no longterm interest in this promotion. When the aftermath of the first oil crisis had subsided, the funds were cut back. In 1977, an incentive system was introduced, which provided for a federal investment subsidy of 25 percent on solar panels and heat pumps. The federal government held then the expansion of renewable capacity to only 2% of electricity consumption until 2000, just to remain realistic. As much as the oil crisis positively affected the promotion of renewable energy technologies it also proved to be a stumbling block in the protection of the environment. The environmental policy of the social-liberal coalition that had found its expression in laws on waste disposal, air pollution control and abatement, so as the lead-in-petrol Act or the Federal Immission Control, came through the economic crisis on the defensive. Environmental protection measures applied in the context of the oil crisis as were viewed as a brake to economic growth.

Links:

Original text of the energy security act:

http://www.gesetze-iminternet.de/bundesrecht/ensig_1975/gesamt.pdf

Photogallery of die Rheinischen Post:

http://www.rp-online.de/leben/auto/news/der-ersteautofreie-sonntag-am-25-november-1973-bid-1.2093492 OPEC and IEA websites: http://www.iea.org/

http://www.opec.org/opec_web/en/

3. Herbert Gruhl published "Ein Planet wird geplündert" (A planet is plundered)

September 25, 1975

The first prominent "green" politician of the Federal Republic was a Christian Democrat.



Herbert Gruhl

Details:

Herbert Gruhl, born in 1921 in Gnaschwitz and from 1969 to 1980 Member of the German Bundestag, ioined the CDU in 1954. As Chairman of the BUND and environmental spokesman of his fraction, Gruhl early presented the environmental issues as the heart of his work and became one of the most prominent environmental politician in Germany. In 1975 Gruhl published his book "Ein Planet wird geplündert- Die Schrekensbilanz unserer Politik" (A planet is plundered: The Balance of Terror of Our Politics), which became a bestseller and shaped the German environmental movement significantly. Similar the Club of Rome's report report "The Limits to Growth" three years earlier, Gruhl

warned about the finiteness of global resources and the destructive environmental impact of the economies of Western industrialized countries. So Gruhl couldn't hardly deny that the action of men at a rapidly increasing human population while rising per capita productivity must lead to the early "total destruction" of the planet. Against this background Gruhl plead in favor of a shift away from the ideology of unconditional economic growth and broad socialconsumption. As a "growth critic" and opponent of nuclear power, he soon left the CDU, where which he did not feel taken seriously: "the facts are that now so that my views are taken into account out there but in my own party unfortunately not" summed up Gruhl shortly before his resignation in July 1978. After leaving, Gruhl founded the "Grüne Aktion Zukunft" (Green Action future), the first nationally active green party in the history of the Federal Republic of which he became Chairman. Together with other green state lists, the small party "Aktionsgemeinschaft Unabhängiger Deutscher" (AUD) (Commonwealth of Independent Germans) and the "Bundesverband Bürgerinitiativen Umweltschutzt"(BBU) (Association of Citizen Initiatives for Environmental Protection), the GAZ, an organizational precursor of the Party "Die Grüne"(The Greens)was based on the federal level in 1980 at Gruhls' initiative. Since Gruhl rejected the positions of the new party regarding abortion and grassroots democracy and also criticized the growing intra-party influence of communist groups, he left the newly created party after only one year. Between 1981 and 1982 Gruhl founded the Ökologisch-Demokratische Partei" (ODP) (Ecological Democratic Party) which should never get beyond their role as small party. Herbert Gruhl, who left the ODP in 1990 and in 1991 was awarded the Federal Cross of Merit, died in June 1993 in Regensburg.

4. The first basic program of the CDU

October 25, 1978

The CDU adopted his first Christian Democratic policy statement some 30 years after its founding as political party. Both the development process and the contents of the program came to a large inner-party meaning, and represented, to the then opposing party, the conclusion of a reorientation period, sometimes referred to as "belated party formation".

Details:

In addition to the "new social issues" that the CDU used to formulate new approaches and priorities in social policy, also important core values of Christian Democratic politics were detained and concretized. an in view of the debate over scarce resources, increased pollution and the progressive loss of intact natural areas, but also the idea of environmental protection, the "Ludwigshafen program" took the triad of "freedom, solidarity and justice" as prominent and fundamental in the party's values catalog. So criticized the CDU the apparent compulsion "to a housing need oriented reconstruction" and the associated urban sprawl. The CDU also advocated for "an economic growth and technological progress based on the production capability of our natural life support systems as soil, water, air and landscape". Although the party maintained the principle of economic growth as the basis for prosperity and social justice; it imposed in the first policy statement nevertheless a sort of reassessment of the traditional growth concept. The previous economic policy target triangle of the CDU, which had consisted of "full employment, price stability and steady growth in external balance" was supplemented by a fourth dimension in the Ludwigshafen program. The program states: "But the attainment of these goals is not enough on its own to ensure solidarity with future generations. They must therefore be extended to ensure the environmental future of our community". The policy statement made clear: "the preservation of natural life support systems is part of our responsible freedom. Who irresponsibly exploits the natural life support system in the present and interferes in the ecological relationships, violates the solidarity between the generations". The CDU spoke out now for a "guality-oriented growth" that was as essential as technological progress and was not founded in "irreconcilable contrast to the protection of our natural resources and the environment". The statements contained in the program

which called for the "refrain from any action that could lead to climate change" and the adoption "international conventions" that were considered surprising and visionary at publication year are now considered essential for climate protection. With the adoption of the policy program, the party was finally aware of its environmental contract, which had inevitably resulted from the Christian points of view on world and men.



Grundsatzprogramm der Christlich Demokratischen Union Deutschlands



"Program the Ludwigshafen"

Original text of the program:

Links:

http://www.kas.de/upload/ACDP/CDU/Programme_Beschluesse/1978_Grundsatzprogramm_ Ludwigshafen.pdf



May 11, 1984

With the nationwide environmental awareness gaining strength as background and in connection with the ecological principles of the Ludwigshafen program; aimed the CDU, with the "Stuttgart Guidelines for the 80s" to find answers to the environmental issues of the time.

Details:

With the program, the party's aim was to further elaborate their ecology awareness and develop a Christian Democrat original environmental policy. Again, the CDU campaigned for "a new understanding" of the terms work and growth: "The diligence of the citizens, the performance of the economy and the policy determined over the prosperity and economic growth of our country; however, economic growth is not an end in itself, but rather a significant help in solving current and future economic, environmental and social problems. We cannot assess growth only on the level of goods and services, but must we also take into account gualitative changes. Savings in energy consumption through new techniques and controls, so as the reduction of pollutant emissions are examples of such qualitative growth, which improves our lives and preserves our resources". Economic growth should now be created under even greater compliance with economic, environmental and social problems".

The CDU reaffirmed the 1978 result of the enlargement of their economic policy target triangle by adding the ecology factor. In this context, the protection the environment was clearly identified as "equivalent" to other values. The Federal Republic was to be developed into a "environmentally friendlier industrial country" and as a pioneer in energy and environmental policy serve as inspiration to its European neighbors. For the first time called the CDU concrete means by which this transformation process could be achieved. The increased "use of economic instruments" in the environment and climate appeared to be the most promising way for the party. The main features of what we today know known as "emissions trading" (the approach to reducing greenhouse gas) were contributions introduced into the political debate of the Stuttgart guiding principles. The aim of this objective was that "every for-profit company avoided pollutant emissions". In general, the Union campaigned for the approach that "he who less loaded or contaminated the environment," should also have better "economic benefits" over the ones who used more environmental goods. In general, the Union has sought in the paper about connecting the Christian Democratic basic principle of the "social market economy" with a progressive and effective environmental policy.

Quelle: KAS/ACDP_07-001-9566

Deutschlands Zukunft als moderne und humane Industrienation

Stuttgarter Leitsätze für die 80er Jahre

Beschlossen auf dem 32. Bundesparteitag 9.-11. Mai 1984 in Stuttgart



"Principles" Stuttgarter

Links:

See original on:

http://www.kas.de/upload/ACDP/CDU/Programme_Beschluesse/1984_Stuttgart_07-001- 9566.pdf Historical classification "1982-1989 - turn times" on http://www.kas.de/wf /de/71.8760/

6. Introduction of the catalyst

September 19, 1984

The Federal Cabinet decided in September 1984 the introduction of catalytic converters for all gasoline car engines.

Details:

In the first half of the 1980s, the debate about the "forests dieback" and the so-called "acid rain" reached its peak. Quite a few experts and conservationists made car exhaust responsible for this environmental degradation. In the US and Japan catalysts were made mandatory for new cars in the 1970s. In 1984 no European country had yet introduced such an obligation and in even in Germany this was a highly debated topic. Not only was the envisaged reform initially unpopular between the citizens: the German automotive industry and the economical wing of the FDP (at that time coalition partners



of the CDU in the Federal Government) were skeptical until totally opposed to the catalyst. The German carmakers marked the high costs for citizens and feared a competitive disadvantage against international competition. Since a change of fuel supply to unleaded petrol was necessary for the use of the Kats, warned many European neighbors of a solo effort in environmental policy from the Federal Republic. Against all these resistors, the federal government implemented the

use catalytic converters for all gasoline engines in September 1984 under the regime of Chancellor Helmut Kohl, mandatory for all new cars since 1989. Thus, the CDU dared to implement environmental protection measures in the automotive sector through federal and mandatory initiatives; a courageous decision in a motorists' country like Germany. The tax incentive for car buyers that were willing to buy new cars with catalysts before 1989 and for owners who were willing to retrofit their vehicles allowed a rapid dissemination of this technology.

7. Chernobyl and its consequences

April 26, 1986

The nuclear disaster in Chernobyl (Ukraine) on April 1986 must be regarded as immensely important energy-political event, which already represented the second core meltdown accident in just seven years after the severe disturbance in the power plant near Harrisburg in 1979.

Details:

The design basis accident staggered the panic throughout Europe and was regarded by the critics of nuclear energy as the final proof that this technology could not be controlled and was too risky. On several levels simultaneously led Chernobyl -energy as environmentally- to decisive changes. In the German population, the acceptance of nuclear technology suffered a sudden change of mood. The nuclear energy debate debate flattened after the



wake of the second oil crisis, flared up again violently. For the first time, a pole demonstrated that a majority of the population was for a "phase-out of nuclear energy". While in March 1982, 52% of Germans were for the construction of more nuclear power plants, this number decreased to 16% in the weeks following the Chernobyl disaster.

Now, 83% were against building new nuclear power plants. 86% were in favor of a nuclear phase-out, and 17% of them was for an immediate end to the domestic use of nuclear energy. Chernobyl broke not only the social "coal-nuclear consensus", but also the political nuclear consensus among the three German parties CSU, SPD and FDP, that had agreed on energy policy over three decades. In view of the change of mood in the population and the many critical voices that had been heard within the Party since the late 1970s, the SPD changed to an "anti-nuclear party". The hope to win back swing voters who had migrated in recent years to the Greens, is likely to have played a role in the decision of programmatic change

as well. At their national convention in Nurenberg in August 1986, the delegates decided almost unanimously to withdraw from the domestic use of nuclear energy. In its decision, the SPD joined the new position of the Green Party. The German party system now had two energy-political camps. While the CDU and FDP continue advocating for nuclear power, the SPD and the Greens called for a phase-out of technology.



http://www.faz.net/aktuell/gesellschaft/bilder-ausdem-katastrophengebiet-der-lange-schatten-vontschernobyl-12924434.html

Chronology of the nuclear disaster:

http://www.tagesschau.de/ausland/meldung121056.html

Summary article: http://www.planetwissen.de/natur_technik/atomkraft/tschernobyl/

8. The establishment of the BMU / Walter Wallmann

June 6, 1986

After the nuclear disaster at Chernobyl, the CDU-led federal government established the Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).

Details:

Although the CDU-led federal government verified after the Chernobyl accident, that there were no safety findings derived from the accident in Ukraine, which could be "in any form" transferred to Germany, it responded politically still immediately. To remain effective in the nuclear field, the Kohl government created the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), where now all scattered executive environmental competences were bundled: water and waste management, soil conservation, environmental health, pollution control, environmental and transport, chemicals safety, conservation and ecology, safety of nuclear installations, radiation protection, nuclear waste and supply as well as international environmental cooperation were unter the remit of the new ministry. The Ministries of Interior, the Ministry of

Agriculture and the Ministry of Family Affairs had been forced to give up their responsibilities in this field. The CDU politician Walter Wallmann swore-in the first Minister of the Environment. Wallmann, born in 1932 in Uelzen and member of the CDU since 1960, was lord mayor of Frankfurt from 1977 until his appointment as Federal Minister and led the department until April 1987. The main themes of his short term -he was elected Prime Minister of the State of Hesse 1987- were dealing with the consequences of the chemical accident of Sandoz



Walter Wallmann

Group, where toxic extinguishing water threatened the ecosystem of the Rhine. Wallmann also put important pieces of legislation: the German nuclear power plants were retrofitted with new safety valves ("Wallmann valve"), he introduced a new tax law for new, lowemission cars and passed a bill on the detergents and cleaners. The latter provided a better environmental performance of detergents that had to be biodegradable now.

Links:

Article of the Federal Environmental Agency on the 25th anniversary of the Sandoz chemical accident on http://www.umweltbundesamt.de/presse/presseinformationen/sandoz-chemieunfall-jaehrt-sich-25-mal Current version of the washing and cleaning act on http://www.gesetze-im-internet.de/bundesrecht/wrmg/gesamt.pdf Website of the BMU on http://www.bmub.bund.de/

9. Töpfer swims in the Rhine

September 14, 1988

Despite all the political successes attributable to the second Christian Democrat Environment Minister Klaus Töpfer, combine many German link his term of office until today, with the jump in the river Rhine in September 1988.

Details:

As a "living environment indicator," says a contemporary Spiegel comment, Töpfer wanted with his highly publicized campaign - at least according to former interpretation- to draw attention to the greatly improved water quality in the German-French border river. Given the numerous initiatives and projects, that Töpfer triggered and implemented as federal Minister of the Environment, his "bathroom in the Rhine" should be a political side note. Töpfer, who had already led the state Ministry of Environment in Rhineland-Palatinate, replaced Wallmann as head of the fledgling Federal Environment Ministry in 1987. Even his balance as state minister spoke for the educated economist: he could -at the time of his move to Bonn- refer to the introduction of stricter controls and standards of vines, and a double of the protected areas in Rhineland-Palatinate. The Federal Ministry for the Environment experienced under Töpfer, born in 1938, a significant increase in importance. In addition to the energy policy major support of the Stromeinspeisungsgesetzes (Current entry Act) and the preparation of global political decisions on sustainable development ("Earth Summit") and the FCKW ban introduced nuclear policy, management of environmental burdens in the new states and the protection of the oceans are one most important contents of its for around eight years in office (1987-1994). Töpfer publicly showed since his first years in office a nuclear skeptical attitude and campaigned within the party to abandon nuclear energy in the medium term, but initially it was unable to prevail. Nevertheless between 1988 and 1989 was established at Töpfer's initiative, the Federal Office for Radiation Protection, which brought together the formerly divided among several ministries skills for dealing with radioactive materials. The Office should improve and simplify the executive control of nuclear waste (waste storage issue) and the nuclear safety. Also withdrew the Töpfer

license of nuclear undertaking Nukem due to security concerns. An amendment to the Atomic Energy Act in July 1994 increased the security requirements for the future construction of nuclear power plants and established the direct disposal of radioactive fuels the same as reprocessing.

The handling of the environmental damage caused in the planned economy of the GDR can be described as a key project of the Töpfer's Ministry. The "Ecological Reconstruction of the East" should be designed through a 1991 action program that included the closure of all nuclear facilities in East Germany. In general, the CDU-led federal government sought to overhaul the energy system in the new states which for decades based primarily on the use of solid fuels such as lignite. The ecologically devastating energy system of the GDR had to be handled and fundamentally rebuilt. The structures of the old Federal Republic quickly and effectively transferred to the new states. The ecological effect of alignment of energy systems and environmental standards was a drastic decrease in emissions of pollutants and greenhouse gases in East Germany. Ultimately, the protection of the North Sea and Baltic Sea had a high priority on Töpfer's political agenda. In the summer of 1988, the program "Together Save the North Sea" and a "ten-point catalog" were presented for the protection of the North Sea and the Baltic Sea. The core focus were the measures to improve the cleaning of industrial and agricultural waste. Thus, the nutrient content and thus the growth of algae in the oceans should be reduced in order to maintain the ecosystem in balance. With the "Helsinki Agreement" for the protection of the Baltic Sea Area and the "OSPAR Convention" for the Protection of the North-East Atlantic (both 1992) and the adoption of the London Agreement of 1993, which prohibited the dumping of nuclear waste in the oceans final, were many of the international steps undertaken. In his term, Töpfer also reached environmental milestones such as the Environmental Impact Assessment (1989), the development of the dual system "Green Dot" (1991), the establishment of the Federal Agency for Nature Conservation (1993) and the inclusion of environmental and animal welfare in the basic Law (1994).

Töpfer remained faithful to the environmental policy even after his departure from office in 1994. After a three-year tenure as Federal Minister of Construction, he was appointed Executive Director of the United Nations Environment Program (UNEP) in 1998. After two terms, Töpfer went back to science in 2006 back and in 2009, was designated founding director of the Institute for Advanced Sustainability Studies (IASS) in Potsdam. At the beginning of 2011, Töpfer took over the Presidency of the ethics committee for "Secure Energy Supply", which recommended the federal government a phase-out of nuclear energy after the Atom disaster at Fukushima. With this, Töpfer rounded a lifework on environmental policy.



Klaus Töpfer está nadando en el Rin

10. The CDU-paper "Unsere Verantwortung für die Schöpfung" (Our responsibility for the Creation)

September 13, 1989

At its Bremen Federal Party in September 1989, the CDU adopted its most comprehensive paper on environmental policy.

Details:

Even if the program "Our responsibility for the creation" primarily the previous environmental policies of the CDU-lead Federal Government represented and legitimized, the program also presented new trends. The party promised, for example, an ecological tax reform. "Generally speaking, the possibility of a environmental development of the tax system must be considered, where technical scope exists and can be used flexibly and efficiently through market incentives as limit values". The CDU stressed that such charges should "reward environmentally friendly behavior and punish environmentally hostile behavior"; however, the party limited this statement in view of a



responsible economic policies. For environmental taxes and charges applies the principle of "the incentives for environmentally friendly behavior but not the emergence of these".

International climate policy also took a prominent place in the environmental program of the CDU, which campaigned here for very ambitious goals: "A reduction of CO2 emissions by 50% with us today may be described as utopian. But this utopia of today must be the reality of tomorrow". 'The program took particularly the Western industrialized countries in the duty to take the lead role because of their "high per capita consumption": "The industrialized countries have an obligation to develop -for themselves and for third world countries- forms of energy use that are environmentally justifiable and useful for developing countries to overcome poverty and hunger". Also on climate change in the international framework, the party considered the introduction of a "CO2 tax". The objectives and measures that the CDU in the area of greenhouse gas reduction already introduced in 1989 seem from today's perspective as an anticipation of the international climate politics of the late 1990s and 2000s.

11. The power input act comes into force

1991

The current entry law (StrEG by its German acronym) made an initial groundwork for market integration of renewables, but still no "boom" in this sector could be triggered by the input coupled to the average electricity price compensation rates. However, the StrEG is rightly regarded as a precursor of the Renewable Energy Sources Act from the year 2000.

Details:

With the creation of the Federal Ministry for the Environment as an environmentally political actor within the federal government and the increasing influence of environmental organizations in the late 1980s and early 1990s; a strong social lobby, which campaigned for further exploration, development and grid integration of renewable energies was originated in Germany. Interest groups such as the Association of medium-sized solar industry increasingly campaigned for a nationwide implementation of market launch support for renewables. There should be some members of the Union faction in the Bundestag, including the future of Ministerpresident of Schleswig-Holstein Peter Harry Carstensen and the CSU representative Matthias Engel Berger, who received the demands of these new lobby and in cooperation with parts of the Green parliamentary group and the CDU-led Federal Ministry for the Environment the legislative process for the new "Electricity Feed Act" clink.

Since 1979, there had been a non-binding agreement with the private sector power companies, which had governed in a very limited sense, the entry of a third party like the renewable sources. Therefore, the utilities were not always forced to reduce this current and in case of a reduction, companies should only pay a compensation under the principle of avoidable costs. With the "Law on the supply of electricity from renewable energy sources in the public network" (Electricity Feed Act) an obligation to purchase at a minimum price has now been determined. The law required the company that stream that has been generated in its area of supply shall be remunerated at a minimum price, which was calculated in the average revenue: 75% to hydropower, landfill gas and waste forestry and 90% electricity from solar and wind sources. The cost of this assessment should carried the energy supply companies themselves. The law was adopted on December 7, 1990 on the

initiative of the Bundestag and entered into force on January 1, 1991. At the same time, federal and state governments began in September 1990, the "1000 roofs program", which subsidized the installation of photovoltaic systems with 70% of public funds.



Legislature

Links: Original text of the act: http://archiv.jura.unisaarland.de/BGBI/TEIL1/1990/19902633.1.HTML Article about the emergency and impact of the act: http://www.zeit.de/online/2006/39/EEG/komplettansicht

12. CFC ban

May 6, 1991

On 6 May 1991, the CFC-Halon Prohibition Ordinance came into force. This ordinance banned the use of CFCs in almost all product areas from the end of 1994.

Details:

In the mid-1980s confirmed renowned climate and atmospheric scientists apparently conclusive that a hole in the ozone layer had formed over Antarctica. This layer -located between 15 and 50 km altitude in the stratosphere- forms for humans and animals on earth a natural barrier against the strongly harmful ultraviolet sun rays. An ever faster expansion of the ozone hole was predicted, with devastating consequences for the ecosystem and the human race. The main cause for the formation of the ozone hole was the release of chemical substances made by humans. The CFCs contained in propellants and refrigerants and halons used in fire extinguishing agents were therefore particularly harmful to the Earth's atmosphere. Against this background, the international community was forced to act. In March 1985, the Vienna Convention for the Protection of the Ozone Layer was adopted, which obliged the signatory states to take counter-measures in national legislation as well as to conduct further research in the field. Also, the decision was made -almost a decade later in international climate policy- to establish a permanent secretariat to organize more conferences on the topic. On the follow-up conference in Montreal in 1987 a breakthrough was finally achieved. In a legally binding contract, 24 States and the European Economic Community agreed to reduce the production of CFCs by the year 1999 in half.

Germany became then an internationally recognized pioneer in atmosphere protection. The CDU-led Federal Environment Ministry urged to suppress as quickly as possible depleting substances for the ozone from trade and industry. Thus entered the CFC/Halon Prohibition Ordinance entered in force in Germany on May 6th 1991. This ordinance banned the use of CFCs in almost all product areas since the end of 1994. Thus, the Federal Republic was one of the first industrialized countries in the world to entirely abandon the use of CFCs. A view of the current atmospherical situation shows that the measures taken can be regarded as very successful. The Montreal Protocol has been ratified by 195 countries and the CFC concentrations in the atmosphere are rapidly declining. 2012 saw the message sensation that the increase of the ozone hole was not only stopped, but, this has been reduced again.



Prohibition

Links: 2012 article on the ozone layer: http://www.n-tv.de/wissen/Ozonschicht-regeneriert-sicharticle7413046.html Website of the UNEP's Ozone Secretariat: http://ozone.unep.org/new_site/en/montreal_protocol.php

13. Rio Conference



June 14, 1992

The United Nations Conference on Environment and Development was held in Rio de Janeiro in June 1992. In it, global context actions should be taken in order to counter the ongoing environmental degradation and climate change effectively.

Details:

This conference, also referred to as the "Earth Summit", relied not only on consultations between national governments but also incorporated thousands of representatives of non-governmental organizations and many citizens to the negotiations. The Federal Environment Minister Klaus Töpfer, who was an important mediator at the conference, noted in retrospect that Rio was "without a doubt, a summit of the atmosphere of euphoria, a peak of optimism ". In fact, the decisions reached there set new standards in international environment and development policies. The action plan "Agenda 21" established fields of activity and projects which should enable sustainable, i.e., the natural resource development in the world. The Rio Declaration held principles for the national government's' relationship with other governments and with its citizens in the environmental and development area. Also, new principles for forest management and the establishment of a United Nation's Commission on Sustainable Development (CSD) were adopted. However, the most important outcome of the Rio Conférence was signing the Framework Convention on Climate Change that committed 154 countries on its goal to "prevent dangerous anthropogenic interference with the climate system". Thus, UN Climate conferences should now be held annually. The UNFCCC entered into force in March 1994 and provided the reduction of emissions of greenhouse gases in Western industrialized countries to 1990 levels. The Convention on Biological Diversity adopted in Rio set new standards and oriented in UNFCCC organizational matters. This convention targeted -among other matters- the protection of biological diversity and the sustainable use of the world's eco-systems.

Links: Homepage of the United Nations framework Convention on Climate: http://unfccc.int/2860.php Website of the UN Conference "Rio + 20": http://www.uncsd2012.org

14. Circular Economy Act

September 27, 1994

With the adoption of the Circular Economy and Waste Management Act in September 1994 ushered the Christian Democratic Federal Government, what the Federal Environment Minister Töpfer then emphasized as "the end of the throwaway society and the beginning of circular economy".

Details:

The Regulation on Packaging presented a few years before enabled the reduction in the volume of packaging waste by more than one million tons. Thus, the adoption of the circular economy act was viewed not only as an environmental milestone, but as another important component of structural change towards a resourceefficient, sustainable, and social market economy. Töpfer presented a much-noticed essay as guiding principle of the new act. In this essay, he stated his expectation that, in the future, both the industry and consumers started to "think about waste management. This means: In decisions on production and consumption must not only be involved the question of the use and suitability, but also the question of how something is produced and what has to happen with this product to end of its life cycle."

The Circular Economy Act introduced the polluter pays principle as central point, which aimed that environmental damage and highresources consumption were reflected in the product price. The law regulated clearly and for the first time quite who was responsible for waste disposal and how certain wastes should be disposed. The idea of recycling gained a brand new weight since the producers of packaging should be encouraged by an obligation to generate less waste or to make better use of it. In short, the prevention and recycling of waste prior to their removal was a priority objective. The Act came into force in October 1996. In 2005, the Federal Environment Ministry presented a balance on the impact of the waste management act. This balance showed that the measure had quite a big success: although from 1992 to 2004 there had been an overall growth of 15 percent, the sum of household waste remained constant. In addition, the balance showed that in 2005, 62% of the urban waste and 64% of industrial waste were recycled.

15. Angela Merkel becomes Minister of the Environment

November 17, 1994

On 17 November 1994, the current Chancellor and CDU leader Angela Merkel was sworn in as the new Minister for the Environment. However, the former Federal Minister for Family Affairs did not had plenty of time to get familiar with the new office.

Details:

The first United Nations Climate Change Conference (COP 1) was already set for March 1995 in Berlin. There Merkel should play a central role. Looking back on her time in the Ministry of the Environment. Merkel defines her participation in the Berlin Conference as a formative experience that have taught her that "you can come to good results even in difficult situations with persistence and persuasiveness." In fact, in Berlin 1995 were defined the political foundations for the later Kyoto Protocol. The participating countries agreed on the so-called "Berlin Mandate", which established an "ad hoc group", which should draw up a legally binding instruments -between now on an annual basis to be held climate conferences- that showed concrete CO2 reduction targets. With the commitment made in the Conference, Merkel aimed that even countries that were skeptical to the definition of mandatory climate change objectives skeptical participated in this process. With the commitment that the Federal Republic will make by far the largest single contribution to CO2 reduction in all industrialized nations, Merkel was able to reduce the reservations of the skeptics. Within the meaning of the Berlin Mandate negotiated by the "ad hoc group" climate protocol formed the basis for the negotiations in Kyoto, Japan in December 1997th

In addition to their involvement in international climate policy remain two large planned legislation of the term of office Merkel as Federal Minister of the Environment of in memory: the introduction of the new "Environmental Auditing Law" (1995), which promoted the establishment of corporate environmental management systems, and the Federal Soil Protection Act (1998), which prevented environmentally harmful soil changes and sped up and improved the remediation of contaminated sites. Merkel also attempted to establish a uniform national environmental code, but failed.



Angela Merkel



Angela Merkel in 1995

Links: Declaration Kyoto Protocol on the side of the BMU: http://www.bmub.bund.de/themen/klima-energie/klimaschutz/internationale-klimapolitik/kyoto-protokoll/ Text of the Environmental Audit Act: http://www.gesetze-im-internet.de/bundesrecht/uag/gesamt.pdf Text of the Soil Protection Act: http://www.gesetze-im-internet.de/bundesrecht/bbodschg/gesamt.pdf

16. Meseberger Beschlüsse (Meseberg decision)

August 23, 2007

In the climate change policy, the second grand coalition under Angela Merkel (2005-2009) should show more initiative than all previous governments.

Details:

The publication of the Stern Report (October 2006) and the report of the Intergovernmental Panel on Climate on the consequences of climate change (February 2007) had given the public debate on climate change a significant boost. The report of the World Bank economist Sir Nicholas Stern developed a climate scenario that pointed out not only a threat to the basic elements of human life on Earth but also the costs of climate damage amounted to around 5.5 billion euros. Thus, climate change had for the first time a concrete, economically face. As a result of this, Chancellor Merkel acted as a "climate politician" on the international stage for an immediate and drastic global response to these scenarios. In the context of the German EU Presidency Merkel called in the first half of 2007 for an ambitious European climate and energy policy, whereupon European Heads of State and Government agreed -in March 2007on the so-called "20-20-20 goals" that should be achieved by 2020. In this goals, the EU's CO2 emissions should be reduced by 20% in comparison with 1990 levels. Energy efficiency should be increased by 20%, and the share of renewables in total energy consumption to 20%. In the same year, Merkel should also manage to commit the G8 member countries on a common language for international climate protection. Because of these successes on the international stage Merkel was medial fast referred to as the first German "climate chancellor".

The federal government also took national measures to promote Germany's contribution to international climate protection. In August 2007 the grand coalition agreed on the so-called "Meseberger

decisions" or the Integrated Energy and Climate Programm that promoted further development of renewable energy, a significant increase in energy efficiency and the modernization of German power plants as the cornerstone of a sustainable, climate-friendly energy supply. The announcements made there regarding climate protection targets even went far beyond the EU 20-20-20 targets: By 2020, German CO2 emissions should be reduced by 40%, the share of renewables in electricity generation should increase to 30% and the heat generation to 14%. The 29-point program also provided for an amendment of the Energy Act and the Energy Conservation Act, an increased support for Cogeneration and the tightening of energy standards for new buildings by 30 percent.

17. Adoption of the "Beust-Papier" (Beust paper)

December 2, 2008

In June 2008, the "Commission on Integrity of Creation" under the direction of the First Mayor of Hamburg, Ole von Beust, presented its draft for an environmental policy paper that later presented and adopted in December 2008 by the CDU party congress in Stuttgart with the title "Bewahrung der Schöpfung – Klima-, Umwelt- und Verbraucherschutz" (Integrity of Creation: climate, environmental and consumer protection).

Details:

Once again, the party made clear here the principles and potentials of a Christian democratic environmental policy: "We see the sustainable market-based environmental policy as an opportunity and as an engine for innovation, growth and employment. Our goal is to expand the global leadership role of Germany in environmental technologies". Here, climate protection was referred to as "core objective of the party" and was recognized as it since the beginning of the program. To achieve further reductions in CO2, the CDU pleaded to increase energy efficiency and expand of the policy instruments of emissions trading. The principle of sustainability has also been declared a "mission statement"



Beschluss des 22. Parteitages der CDU Deutschlands:

Bewahrung der Schöpfung: Klima-, Umweltund Verbraucherschutz

The second secon

of the Christian-democratic policy, and a further expansion of the "innovative business" of renewable energy was planned. To make the change of the energy system on a solid and supply-security base and against the background of climate problems, the program did not wish to renounce nuclear energy as part of the future energy mix: "For the foreseeable future we cannot renounce to the contribution of nuclear energy for electricity generation in Germany. It allows us to bridge the period until new climate-friendly and economical sources of energy are sufficient and available. As part of our climate change strategy, we aim at extending the lifetimes of safe nuclear power plants". Overlooking at a livable environment, the economic importance of species and plant diversity and the importance of tourism to Germany, the program also acknowledged the issue of biodiversity an important place.

Link: Original text of the Beust papier on:

18. The Energy Concept of the Federal Government

September 28, 2010

The new conservative-liberal government under Angela Merkel reaffirmed in its coalition agreement of 2009, the decision to continue on the path of energy policy that had already been taken in previous administrations.

Details:

Despite this, the government indicates its new approach: to promote, from now on, an ideology-free energy policy, open to technology and market oriented. One consequence of this approach was the refusal to abandon nuclear technology agreed in 2000 and the announcement of a considerable extension of the (until then defined) definite deadlines for the life of nuclear power plants. The extension of these deadlines cannot be seen as an isolated measure of energy policy since it was included in the first global concept developed by the federal government for future energy supply.

In September 2010, the Merkel government presented its "energy concept" to the public. Once again, planning a rather ambitious climate protection goal for Germany: by 2020 greenhouse gas emissions should reduce by 40% and by 2050 it should be at least 80% below the levels in 1990. By 2020, renewable energy should rise 18% in the gross energy consumption. This should increase to 30% by 2030, to 45% by 2040 and 60% by 2060. By 2020, the amount of renewable energy in gross energy consumption should reach 35%, 50% by 2040 and 80% by 2050.

The ambitious goals in increasing the energy efficiency of buildings and private vehicles were also part of the energy concept. The measures for the expansion of renewable industry were important for the government: extending support for wind energy (offshore and onshore), the greater use of renewable energy for the production of cold and heat, better integration of renewable energies in the energy supply, quantitative and qualitative expansion of the grid as well as the further development and promotion of new storage technologies. In the energy concept of the government there was a passage, which commonly - and incorrectly - is referred to as "Phase-out of the nuclear phase-out": "Such a process requires not only time, but also must be economically reasonable to make this transition. We would still need nuclear energy, therefore the deadlines were extended by an average of 12 years. The federal government estimates that this deadline extension would have no adverse effects on competition in the energy sector, especially as nuclear fuel taxes and other payments from operators of nuclear plants remove most of their additional benefits of these. Thus the economic improvement of nuclear plant operators through the extension of time is prevented."

Thus, the government led by the CDU is in favor of the transition towards an era of renewable energy, of climate change policy challenges and the role of Germany as a leading innovative nation in this sector. Nuclear energy was seen as a bridge towards a sustainable energy supply, which should ensure the supply and profitability of the energy system. However, it should be clear that the federal government only extended the lifespan of nuclear energy in Germany because new investments in nuclear technology were not foreseen, nor its future exploration or even building new nuclear plants. Therefore, the Merkel government clung to the fundamental decision to withdraw from this technology.

Link:

19. Fukushima disaster

March 11, 2011

After the nuclear disaster in Fukushima, the German politics decided the definite phase-out of nuclear power.

Details:

The nuclear accident at Fukushima in March 2011 led to some hysterical reactions in the German media. This becomes clear when comparing the German, English and French press comments of that time. In Germany some extra supplements of daily and weekly newspapers appeared, the disaster was documented by the minute. The Süddeutsche Zeitung confirmed the negative image of nuclear power through Fukushima. The technology was simply not manageable. Fukushima was even compared with the "vulnerability of the western world" on 11 September 2001. The nuclear disaster was a global setback for the entire nuclear industry, while in Germany opened the opportunity to go for a power supply of 100% renewable energy. In contrast, a nuclear phase-out was not even discussed in the British press; rather moderated in order not to disturb the market and the population unnecessarily. Even France did not have the same reaction to the accident. The discourse on nuclear policy was taken objectively and a final report on the development of an energy mix as the most likely solution was presented. The complete abandonment of nuclear policy in the near future did not seem possible with nuclear power providing 78% of the energy supply, but this possibility was not thoroughly explored by society or the political class. The different reactions to the nuclear disaster in Germany, France and the UK showed the influence that the German anti-nuclear movement had gained over the past decades, how skeptical the German population was about the technology and what an important and emotional political question the nuclear policy posed in Germany.

Fukushima and the social and media reaction to the disaster led to a rethinking within the CDU and the government parties. Despite this, Fukushima did not change the objective security situation in Germany but fundamentally changed the political and social perception about the possible risks of domestic use of nuclear energy. With this background, the German federal government responded quickly to the accident: On 15 March 2011 March 15, 2011, Chancellor Angela Merkel announced the "nuclear halt". This announcement was made after consultation with the premiers of the states which had nuclear

plants and referring to the articles concerning the safety of nuclear law (risk prevention).

The seven oldest reactors in Germany were temporarily closed (and should not return to the grid). The extension period for German nuclear power plants was suspended for three months. On March 22, 2011, the federal government created the "Ethics Commission for Safe Energy Supplies", aimed to find a consensus on nuclear policy after Fukushima. In its report a complete phase-out of nuclear power for 2021 if possible, was recommended. That summer, the federal government and the Bundestag decided the definitive abandonment of nuclear energy.

Fukushima had finally led to a political and social power consensus among all German parties. All German politicians, both federal and state level, were committed to the four principles on energy policy: support for environmental and climate policies, security of supply, productivity and the acceptance of social impact. In these principles nuclear energy had no role.



Links:

Photogallery "Tsunami strikes on nuclear plant" on

http://www.tagesanzeiger.ch/ausland/die-tsunamikatastrophe/Hier-ueberrollt-der-Tsunami-das-AKW-Fukushima- / story/28257207?dossier_id=885%23clicked0.9474773453548551 Chronology of nuclear disaster on

http://www.spiegel.de/flash/flash-25484.html

20. Coalition agreement of the grand coalition

December 14, 2013

The third grand coalition in the history of the Federal Republic of Germany was led by Chancellor Angela Merkel again and closed with a coalition agreement signed in December 2013. The new federal government was faced with many problems in the implementation of the energy change, which is why energy policy played a leading role in this agreement.

Details:

The challenges were (and are) huge: The cost for energy consumers, which resulted from the distribution provided in the Renewable Energy Act was increasing. The industry and the energy providers indicated that there could be a shortage of electricity supply because of the increase of weather-dependent energy sources and the number of conventional power plants that were no longer operating; therefore they were no longer available for the basic supply load. At the same time, people's rejection to energy change projects has increased in the last few years. Also, the expansion of the German electricity networks, which was necessary for the supply of renewable electric energy, has not turned out as planned. The coalition agreement promised amendments in the Energy Change Act. The development of renewable energy should be slowed down and take place in established development corridors: Until 2025 power supply should increase up to 40% or 45%, and up to 55% or 60% until 2035. The expansion of biomass power plants should be limited mainly to waste and residues, subsidy rates for wind power plants should be reduced and the total capacity of offshore wind power plants should be adjusted to 6.5 GW in 2020 to 15 GW in 2030.

A great setback in net metering and a strong promotion towards market were considered. Even the CDU / CSU and the SPD agreed on verifying if large electricity producers could ensure maximum base load supply from renewable energy in the future. In general, better costs should be achieved for the consumers through lower fees and a controlled expansion. The current government believes that the policies amendments concerning energy policy are among the most important tasks of this term.

II. Energy and climate policy in Germany to 2014

Introduction

The 20th United Nations Conference of the Parties (COP) held in Lima by the end of 2014 was the meeting point for international climate negotiations. All these negotiations are part of a series of political processes, several of which are running parallel. Examples of these processes is Ban Ki-Moon's Climate Summit recently held in New York, or the new climate and energy goals for 2030 approved by the European Union. At the same time, this COP will show if it was possible to create solid foundations for a possible global climate protection agreement expected to be ratified in Paris by the end of 2015.

In Germany, climate protection policy is omnipresent in public, medial, and political perception. The broad and ongoing discussion on climate and energy policies is not only guaranteed by the recent approval of an energy concept —which poses a radical change in German energy supply by using almost exclusively renewable energy until 2050 (energy transition) — but also global effects on climate change —also noticeable in Germany— are perceived in politics and intensively discussed by civil society.

At the same time, German debate on international climate policy occurs at a time marked by a significant change on energy policy's general conditions. Given the increase in the use of gas and oil shale in the US, completely new global geopolitical patterns are being created. A growing environmental awareness in China is shown in its efforts to restrict their CO2 emissions. EU role as pioneer in climate policy is openly criticized by some of its Member States, given the last economic and financial crisis and the current crisis in Ukraine. As a consequence of this, a change of priorities is observed in Europe, from climate protection to competition and energy supply security.

Against this background and considering international stages, climate policy in Germany is facing the challenge to enter to this changing global framework. In this context, Germany can rely on its tradition in environmental policies and relate to the climate protection policy in the country. Notwithstanding, it is still left to see if these efforts are enough to have a decisive influence in international climate change negotiations.

A Christian Democrat retrospective

Climate protection policy or climate policy is a rather young political discipline in Germany. Its origins are found in a discussion on the broader –and especially more international– environmental policy that influenced the country politically with famous publications such as the study "The Limits of Growth", by the Club of Rome (1972), or the *Brundtland* Report: Our Common Future (1987). In Germany, the "Forest Death" in the 80s made necessary to establish several environmental policy measures. Industrial emissions containing sulfur dioxide and car exhaust gases and its lead content caused an alarming forest deterioration. It was then Chancellor Helmut Kohl (CDU, Christian Democratic Party), who established an environmental regulation framework which resulted in a noted improvement for the environment.

A breakdown in German environmental perception was caused by the explosion of the nuclear reactor in Ukrainian Chernobyl in 1986. For climate reasons, the fallout reached Germany, which fired up controversial debates regarding the peaceful use of nuclear energy to generate electricity. As a reaction to public fears, the Kohl administration established in that same year the Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMU by its German acronym), designated CDU President Walter Wallmann as the first Minister for the Environment in Germany. Even inside the CDU, these events triggered substantive discussions on the better way to strengthen the environmental protection in politics. The starting point was the Christian conception of the human being, present in all religious denominations, which in simple terms includes the preservation of Creation and its sustainable use.

Klaus Töpfer (CDU), who will later on lead the United Nations Environment Program (UNEP) as Executive Director, took office as Minister for the Environment in 1987. During his tenure, he left permanent traces of the CDU profile on Germany's environmental policies. In different party committees and in some strategic documents, he prompted debates on the nature of the future Christian Democrat environmental policy and worked in developing directives on this regard. In this context, he coined the term "ecological and social market economy".

In Germany, the social market economy regulates economic and social cohesion. At the same time, it was the foundation of the rapid German economic rise after both World Wars and of the continuing prosperity in the country. Historical basis of the social market economy is related to the political-regulatory principles by Walter Eucken, the integration of social issues based on Christian values promoted by Alfred Müller-Armack, and the political concept introduction by Ludwig Erhard. Klaus Töpfer applied the concept of social market economy to the current issues in environmental policies, highlighting its ability to provide a social balance between economy and ecology. Although the term "social and ecological market economy" has not been established in CDUs statutes, it still shapes the party's thoughts on environmental policy.

In regards to international policies, the Kohl administration promoted an integral perspective on environmental protection and economic growth, coining the principles of the German "external environmental policy". Especially in the United Nations Conference on Sustainable Development in 1992, Helmut Kohl managed —with this concept— to highlight German credibility as an international actor promoting a committed global environmental policy. Chancellor Angela Merkel, who succeeded Klaus Töpfer as Minister for the Environment, continued to strengthen this commitment. Merkel put climate change on the international agenda and made an essential contribution to the approval of Kyoto Protocol, which represents a global legal barrier to climate-damaging greenhouse gases, mostly from industrialized countries.

The following years were marked by a political change in Germany. The CDU became an opposition party after the 1998 elections: the Green-Social Democrat coalition formed the federal government and thus assumed the political responsibility of the country. The most important measure adopted in environmental policies during that period was definitely the decision to abandon nuclear power by 2020. Other initiatives, such as the introduction of an "ecological tax", actually constituted a continuation or intensification of the internal environmental policies started by Kohl's government.

Since the parliamentary elections in 2005, the CDU formed a new government along with the Social Democrat Party and Angela Merkel as Chancellor. The best term to characterize the environmental policy from that period is probably "eco-industrial policy". Basically, this term represents the claim formulated in the previous years that economic growth and environmental protection should not constitute irreconcilable contrasts. In international climate policy, a roadmap was elaborated in 2007 to reach an international global agreement to be approved in Copenhagen by 2009. At the same time, Angela Merkel's Germany took over the presidency of the Council of the European Union and the G8. Merkel used this time to put climate change on the global agenda. For example, the EU decided on a 20% CO2 emission reduction compared to 1990 levels. Renewable energy and energy efficiency shares would be increased by 20% respectively ("20-20-20 Goals"). Nevertheless, a global climate protection agreement was not reached. The gap remained too wide between industrialized and emergent countries.

The current climate change protection in Germany is, on one hand, marked by a European and international binding framework, whose creation has actively contributed through its foreign policy. On the other hand, is characterized by its own initiatives in interior policy, which present Germany over and over again as an international pioneer regarding the German promises based on the Kyoto Protocol. The whole European Union committed then to reduce its greenhouse gases between 2008 and 2012 by 8% compared to 1990 levels. This percentage was divided among all the EU Member States. Germany, as a country with strong economy, had to reduce its emission levels by 21%, while other Member States could even increase them (burden sharing). Germany not only reached its goal, but surpassed it.

In 2007, with the upcoming first commitment period of the Kyoto Protocol, the EU approved its own and extensive climate protection agenda. With the above mentioned "20-20-20 Goals", the EU established a long-term framework for its energy and climate policies, which included extensive commitments for its Member States. Taking into account the international climate process, a new commitment period was also approved. Under the Kyoto Protocol II, the EU will reduce its greenhouse gas emissions by 20% between 2013 and 2020. In October 2014, the EU set another long-term framework until 2030. In this context, the EU is committing to

reduce its CO2 emissions by 40% until 2030. Regarding the use of renewable energy and energy efficiency, the goal is to increase both by 27% for the same period.

Germany approved in 2007 an Integrated Energy and Climate Program (IEKP for its German acronym) in order to comply with the country's obligations at a European and international level. The government then decided that while the EU would reduce its CO2 emissions by 30% until 2020, Germany would reduce them by 40% in the same period. The program includes a total of 29 individual measures aimed primarily at improving energy efficiency and increasing the use of renewable energies. Among other measures include promoting cogeneration, improving regulations related to biogas injection into the natural gas network, accelerating network extension, increasing building energy-saving standards, encouraging building energy rehabilitation, taking into account environmental and energy efficiency aspects in public biddings, promoting biofuels, and increasing the use of renewable energies in the energy sector.

Nowadays, the IEKP is an essential framework to evaluate German climate policy. With periodical evaluations, the program progress is presented publicly in order to make any given adjustments at the right time. For example, the last official evaluation of 2011 showed that is unlikely to reach the 40% CO2 emission reduction goal set by 2020 unless other actions are taken. Particularly, the expected increases for building efficiency, transport, and energy sector have not been achieved to the expected extent.

Energy transition

There are different interpretations on when the energy transition started. Some associate its beginning with the introduction of renewable energies through the Electricity Injection Law in the 90s; others, with the Christian-liberal federal government energy concept in 2010, or the 2011 nuclear power phase-out in Germany after the devastating events in Fukushima, Japan.

Either way, energy transition represents the most ambitious climate and energy project in Germany since reunification. According to the 2010 energy concept, 60% of the energy consumption in Germany will be covered by renewable energy by 2050. In the electricity sector, this consumption will even reach 80%. Until 2050, greenhouse emissions will be reduced by 80% compared to 1990 levels. Primary energy consumption will be reduced in half during the same period. To achieve these goals, a series of measures complementing the regulations already agreed by IEKP have been adopted.

So as the IEKP, energy transition is under continual progress evaluation and it is probably the most intensely observed climate and energy project, both from domestic and foreign politics. Inside Germany, it has been subject of extensive public discussions. In the media, energy transition was sometimes strongly linked to increases in electricity prices and to growing insecurity about the energy supply, giving it a negative connotation. However, a variety of representative surveys indicate that this transition is still widely accepted by German society. This situation evidences that energy transition is in a tension field between a variety of particular interests that not only have to do with cost distribution but also with its benefits.

Most recent discussions focus mainly on the climate balance of energy transition, which is being questioned due to the current increase of CO2 emissions. The reason behind this is the increased use of coal to generate power in Germany. Two factors are relevant in this context: on one hand, United States' coal has become a cheap export commodity due to shale gas revolution and therefore has had really successful sales rates in Europe and Germany. On the other hand, the price of CO2 certificates in Germany is so low that coal-generated electricity turns out to be cheap. This creates the paradox effect that CO2 emissions are increasing in Germany despite the growing use of renewable energies. Simultaneous use of both renewable and fossil energies represent as well the biggest regulatory challenge in energy transition implementation in Germany. From the Christian Democrat point of view, it is always necessary to balance affordable and secure energy supply with climate friendly practices.

With the new mandate, the federal government modified the ministerial responsibility of energy transition, setting the Federal Ministry for Economic Affairs and Energy (BMWi for its German acronym) as the main responsible for the energy sector. This Ministry recently drafted an agenda to regulate the implementation of energy transition, and one of the first actions in this regard was to start am amend of the Renewable Energy Act, which regulates

the promotion of these energies in Germany. The background for this amend is based on the fact that the development of renewable energies was not yet regulated. The costs generated were distributed among electricity consumers and therefore resulted in price increase. Basically, the renewable energies annual development is now restricted by a decrease in incentives after a certain amount of generated energy. Furthermore, in the future, renewable energy providers will have to sell their electricity by themselves. With this, the Renewable Energies Act amendment is paving the way for further implementation of market economy principles in energy transition.

In the coming years, a bidding model will also be introduced so that only the most economical renewable energy providers develop the respective facilities. At a European level, the federal government promotes climate and energy goals that are coherent with German energy transition goals. Likewise, Germany wants to turn European emissions trading into a strong instrument for climate protection, offsetting lower CO2 certificate prices by introducing a market stability mechanism. After all, it seeks to develop a European design for the electricity market in order to make energy trade more efficient. An important project in Germany is to improve energy efficiency. In this context, the country seeks to develop its own energy efficiency strategy and translate it into an "Energy Efficiency National Plan". For the building sector, new incentives related to electricity and heating would also be created.

Climate change adaptation

Consequences of climate change are already visible today worldwide. Also in Germany there are studies on the impacts that the climate change will have in the country. According to these investigations, water supply may decrease in eastern Germany. In the Alps, melting glaciers can affect local biodiversity. Coastal regions will probably have to adjust to sea level increase and to new storm concentrations. Moreover, in some regions flood risk may increase.

Germany has approved its own adaptation strategy, not only against the background of international obligations within the United Nations Framework Convention on Climate Change, but aimed primarily to increase the adaptation capability of natural, social, and economical systems to climate change. An action plan developed in 2011 included four main areas in which the federal government started adaptation measures: the first area is to provide knowledge and information, and improve climate competence of the actors involved. To achieve this, the government initiated dialogs, involved citizens, and built networks. The second area has to do with the framework established by the federal government. This framework may have legal and technical effects, but can also include regulations related to incentive systems and its promotion. In the third area, the government involves directly in the implementation of climate change adaptation, for example, by taking into account relevant criteria to its own real estate or infrastructure. The fourth area focuses on the international contribution Germany can make to climate change adaptation, for example as part of its development aid.

Perspectives

After the disappointing negotiations in Copenhagen 2009, international climate policy is currently gaining a new momentum. According to this roadmap, by the end 2015 in Paris there will be another attempt to pass a climate protection agreement that contains binding objectives for all countries. Germany's role in climate policy is being more and more criticized in this context. For example, the fact that Chancellor Merkel did not participate in the Climate Summit convened by UN Secretary General Ban Ki-Moon in 2014 caused much surprise. Moreover, the CO2 emission increase in Germany is also negatively perceived abroad. With all this as background, the general perception is that Germany is now showing certain reserve, compared to its previous role as pioneer in climate issues.

Nonetheless, this perception is very limited. Germany, one of the leading industrialized countries worldwide, is facing a modification phase of its energy system towards an increased use of renewable energies. This process is taking place throughout the society and entails profound changes, especially for the country's economy. With the energy transition, Germany aims to reduce its CO2 emissions drastically and in the long term. In addition, Germany has lead ambitious climate and energy policies in Europe until 2030. The latter also represents the commitment that the EU will present in the upcoming global climate change negotiations. Also, with the Petersberg Climate Dialogue held for the fifth time last year, the Chancellor created her own international forum to provide additional

incentives to the global climate protection process. This forum announced in 2014 that Germany will contribute with 750 million Euros to the Green Climate Fund (GCF). As of 2020, this will provide 100 billion dollars a year to developing countries for climate change mitigation and adaptation.

Thus, German commitment to climate protection will continue and be further developed. However, it will also adjust to global changes and will face present and future challenges. It is likely that in the future, German climate protection will put greater emphasis on economic growth and securing energy supply. Particularly in this context, we will have to demonstrate that an energy system based largely on renewable energies allows for competitive prices at international levels and contributes to a stable energy supply within the country. Given its technological expertise, Germany has already paved the way to achieve this goal. However, taking into account global changes, other countries development should not be out of sight.

Dr. Christian Hübner

Head of the Regional Programme Energy Security and Climate Change in Latin America, Konrad Adenauer Stiftung e.V.

Link: Article published on:

Revista Testimonios Nº114- Instituto de Estudios Social Cristianos, September-December 2014



Regional Programme Energy Security and Climate, Konrad Adenauer Stiftung e.V.

http://www.kas.de/energie-klima-lateinamerika/es/