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Negotiating the European Union Emission Trading Scheme: Re-constructing a Calculative Space for Carbon

Abstract: Re-organization of the European Union Emission Trading Scheme—the European carbon market—is a strategic moment when actors come onto the European arena to voice their claims, represent their interests, propose alternative policy solutions and open up controversies for a public debate. By problematizing rules of the carbon market, actors engage in re-drawing boundaries between economics and politics. This paper adopts a constructivist perspective on the studies of markets and examines strategies adopted by the European Commission and the European industrial federation to inscribe their interests into the ETS rules in 2008. Actors provided justifications for their alternative proposals of the European carbon market by constructing an objective market quality—the market efficiency.

Keywords: laws of the markets, construction, boundary-making, justification, European integration

Introduction

Carbon markets have already prompted debates in social sciences, in particular among scholars in economic sociology studying organization of markets and accounting practices (Callon 2009, Cook 2009, Engels 2009, MacKenzie 2009, Braun 2009, Hopwood 2009, Lohmann 2009). In the piece on civilizing markets, Michel Callon (2009) discusses carbon markets as on-going experiments and points to advantages these exceptional sites provide to scholars and practitioners interested in better identifying “what the dynamics of civilizing markets should be” (p. 535). He argues that, by leaving the question of a composition and boundaries of the markets open to an empirical research, one can gain a more actual picture of how markets work, what their impact is, what conflicts they trigger, and what kind of externalities they produce. I draw on Callon’s and Muniesa’s (2005) definition of markets as “calculative collective devices.” Markets are “socio-technical arrangements” of people, “procedures and devices which are clearly not outside of them but, on the contrary, become essential components of them” (Callon 2009, p. 541). In an earlier piece Callon et al. (2002) point out that “economic markets are caught in a reflexive activity” (p. 194). Market participants may “explicitly question their organization and, based on an analysis of their functioning, try to conceive and establish new rules for the game” (p. 194). An actual design of markets becomes thus a “strategic activity in its own right” (Callon 2009, p.536) and “no market is so stabilized, routinized, mechanized and purged of all uncertainty that it can entirely do without these design activities” (p. 540).

Reorganization of the European Union Emission Trading Scheme (EU ETS) launched by the European Commission in January 2008 in its Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading system of the Community grants a unique opportunity to examine controversies and struggles over composition and boundaries of the European carbon market. This paper studies a controversy over method of allocating emission allowances (EUAs) evoked by the Commission's proposal. Two alternative projects of allocation method were proposed in 2008—one designed by DG Environment and presented in January 2008, and the other designed by the International Federation of Industrial Energy Consumers (IFIIEC-Europe), evaluated by Ecofys and presented by IFIIEC-Europe in April 2008. Examination of this controversy is based on interviews with representatives of the European Commission and IFIIEC-Europe as well as on the analysis of the proposal for a new EU ETS Directive, the Ecofys evaluation of the IFIIEC method and IFIIEC-Europe press releases. I feel invited to address these issues by Callon's (2009) remark that "the advantage of studying carbon markets and their dynamics appears more clearly now. It can serve to further analysis and understanding of the more general process of constitution of collectives comprising large numbers of different actors from diverse temporal and spatial horizons, working on the conception and explication—mainly theoretical—of new market *agencements*" (p. 538).

Market Design as a Strategic Activity

According to Callon (2009), the idea that markets are designed and later on performed illuminates their constructed character and the existence of multiple rules and ways according to which they may function. Markets are therefore not some kind of "quasi-natural realities" (Callon 2009: 538), but they are spaces that are actively constructed by actors and they construct actors and social realities in return (Callon et al. 2002). Callon and Muniesa (2005) define markets as collective, organized devices that calculate compromises on the values of goods. They ask „who (or what) actually calculates" (p. 1229). Authors develop a concept of "distributed calculative agencies" (p. 1236) thus implying that calculation is neither a solely human activity nor can be ascribed solely to models and machines. They point out that "agencies' calculative capacities are linked to their equipment, which is distributed" (p. 1236). An arrangement of elements among which calculation is distributed make up a calculative space. Such spaces may vary and result in different cognitive capacities and valuations of products. This paper examines proposals of alternative political-economic designs of a calculative space for valuation and exchange of European carbon. While Callon et al. (2002) point out that market controversies mainly concern "classification of goods offered to consumers" (p. 196), I propose to examine a controversy over the method to allocate these goods to market partici-

pants.¹ A method of emission allocation is one of defining features of carbon markets designed as cap-and-trade systems.

I enter the debate on alternative allocation methods through the concept of problematization (see Callon 2009, Callon and Law 1982). Problematization, says Callon, is an important component of the process of carbon markets' creation. It is "a gradual process of fragmentation and division of issues that evolve into the joint formulation of a set of different problems which (...), at least partially, are a substitute for the initial issue" (Callon 2009: 543). In the case studies methods to allocate emission permits was substituted by the issue of efficiency (economic and environmental) of the designed system. However efficiency of the European carbon market was understood differently by different actors. Officials from DG Environment and experts from IFIEC-Europe came up with different definitions of "efficiency" and different justifications (see Boltanski and Thévenot 2006) for their own, "more efficient" allocation methods. The way actors problematized the new design of the EU ETS and the way they justified their views revealed problematic boundaries of the European carbon market, its intricate entanglements with other spheres of action and diverse projects of the European Union itself.

Amendments to the EU ETS Directive (2003/87/EC) proposed a new set of rules for the European carbon market—a new arrangement of the calculative space (see Callon et al. 2002, Callon and Muniesa 2005, Stark 2009) for valuation and exchange of the European carbon dioxide. I examine a process of negotiating the construction of this space which involved making boundaries (see Callon 2009, Gieryn 1983) between what is considered a domain of politics and what is considered a domain of economics. Re-drawing of boundaries between politics and economics was a strategic exercise of actors involved in this debate aimed at distinguishing between legitimate and illegitimate proposals concerning organization of the European carbon market. Actors—both officials from DG Environment and the IFIEC experts—pointed out that their opponents tried to politicize the European carbon market. Politics were deemed to distort, "pollute" (see Douglas 1991) efficiency of the European carbon market. At stake in this struggle was the final construction of the calculative space for the Europe carbon valuation and exchange as well as the organization of the European Union itself. According to Callon (2009), the experimental stage of carbon markets' development provides a remarkable opportunity "for studying this process of joint reconfiguration" (p. 542), which concerns the boundaries of markets as well as the boundaries between politics and economics.² As Callon (2008) points out,

¹ The issue of classification of goods at the European carbon market has been studied by Donald MacKenzie (2009: 440–455).

² Callon speaks of three spheres: economics, politics and science. However, in this paper I decided to focus only on the first two spheres. In the debate on the IFIEC contra DG Environment method science was referred to in order to legitimate the reduction target—the 20% EU-cap on carbon dioxide emissions. There was in general a consensus on the climate science and the findings of the 4th IPCC Assessment Report were the main references both for the Commission and the IFIEC group. Directive 2003/87/EC is amended as follows: (1) The following paragraph is added to Article 1: "It also provides for the reductions of greenhouse gas emissions to be increased so as to contribute to the levels of reductions that are considered scientifically necessary to avoid dangerous climate change" (p. 20).

“neither economics nor politics (...) can be considered as realities that have been stabilized for once and for all” (p. 542) and in the establishment of carbon markets we are witnessing their redistribution.

Problematizing Re-organization of the EU ETS

Since January 2005, within the borders of the European Union, over 11000 industrial installations from power generating companies, cement, glass, steel or lime producers joined the EU Emission Trading Scheme (EU ETS). According to the European Commission (2008), the EU ETS “developed into the world’s largest single carbon market accounting for 67% in terms of volume and 81% in terms of value of the global carbon market and also worked as the driver of the global credit market and in that triggered investments in emission reduction projects today indirectly linking 147 countries to the EU ETS through JI/CDM projects” (p. 2). The EU ETS is the main policy instruments in the EU for reducing carbon emissions and an outcome of the European political exigencies (MacKenzei 2009). As MacKenzie (2009) and Braun (2009) point out, it was easier to introduce a carbon market than a harmonized carbon tax in the EU. The former didn’t require unanimity in the Council and as an environmental issue could have been adopted in a qualified majority voting. Since the opposition for introducing a European tax was huge, in particular from the European industry and the UK, the carbon market seemed to be a politically more acceptable option (see MacKenzie 2009, Braun 2009). Creation of the EU ETS was a consequence of signing the Kyoto Protocol by the European Community—it constituted a policy instrument allowing for implementation of the Protocol. The EU ETS Directive (2003/87/EC) was crafted by a group of officials working in DG Environment who managed to mobilize knowledgeable individuals from American-based think tanks, NGOs and companies like BP for this cause (Braun 2009). Braun in his account concludes that officials from DG Environment with Jos Delbeke as the main figure managed to achieve and later on sustain their position of policy entrepreneurs and managers in the field of carbon trade in the EU. Development of the EU ETS took place in phases. The trading period took place between 2005 and 2007 and the second has begun in 2008 and will end in 2012.

Callon (2009, see also Callon et al. 2002 and MacKenzie 2009) in his analysis of carbon markets points out that framing and classification of goods to be traded (various GHGs,) is one of the fundamental issues of problematization. While at the time of negotiating amendments to the EU ETS the list of GHGs was more or less set,³

³ The proposal of the new EU ETS Directive mentioned inclusion of new GHGs: “New sectors and gases, currently not covered by the EU ETS (see below), should also be covered by the activity list. For these reasons, CO₂ emissions from petrochemicals, ammonia and aluminium should be included in the EU ETS. This also goes for N₂O emissions from the production of nitric, adipic and glyoxalic acid production and PFC emissions from the aluminium sector, all of which can be measured and verified with sufficient accuracy. Inclusion of these sectors and gases would increase the coverage of the EU ETS by up to roughly estimated 100 MtCO₂ or up to 4.6% of Phase II allowances. In combination with streamlining the scope of the EU ETS through a codified interpretation of combustion installation, overall coverage of the EU

a debate arose around possible methods of allocating emission allowances (EUAs). An allocation method is a crucial element of the cap-and-trade system and determines the amount of carbon permits, the way they will be supplied to emitting companies and consequently traded. The idea of cap rests on an assumption that in order to reduce emissions, the supply of emission permits to the carbon market has to be gradually reduced. The amount of allowances allocated to the emitting companies is reduced each year or every couple of years. There are however many ways in which emission allowances may be allocated to companies.⁴ In the first two phases of the EU ETS most of them were allocated mostly for free and divided between companies according to the National Allocation Plans (NAPs) prepared by governments (see Zapfel and Vainio 2002). In the proposal of the new EU ETS Directive the Commission argued that “action to reduce greenhouse gas emissions can best be achieved through legislation and coordination at Community level. It appeared from the first phase of the EU ETS from 2005 to 2007 that increased harmonisation, e.g. of the application of the scope of the Directive and of the cap-setting and the allocation rules is needed in order to avoid distortions of competition on the internal market” (p.42). In the new trading period, the price of one EUA was estimated at around 39 Euros and an average estimated increase in electricity prices of 22%.

In 2008 two main competing allocation methodologies crystallized. Full auctions for the power sector with an ex ante allocation based on historical emissions were proposed by the European Commission. Partial auctions for the power sector with an ex ante allocation based on technological benchmarks and an ex post adjustment of the allocated emission allowances (EUAs) based on the actual production were proposed IFIEC-Europe. In this part of analysis, I examine implications of these two allocation methods for different organization of the calculative space for carbon valuation and exchange. I examine how actors problematized organization of this space in terms of its efficiency. The debate revealed controversial boundaries of the EU ETS, its entanglements with other spheres of action and different projects of relations between actors in the European Union.

The Proposal of the European Commission

The European Commission, in the Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading system of the Community changed the EU ETS substantially. After controversies caused by

ETS would roughly increase by up to 140 to 150 MtCO₂ or 6.6 to 7.1% compared to Phase II allowances.” (European Commission 2008: 3–4).

(2) Article 3 is amended as follows: (a) point (c) is replaced by the following: “(c) ‘greenhouse gases’ means the gases listed in Annex II and other gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation;” (b) point (h) is replaced by the following: “(h) ‘new entrant’ means any installation carrying out one or more of the activities indicated in Annex I, which has obtained a greenhouse gas emission permit subsequent to the submission to the Commission of the list referred to in Article 11(1)” (p. 20–21).

⁴ See Zapfel and Vainio (2002) for a discussion on different schemes of carbon trade: top-down UN scheme, bottom-up Member State scheme and regional EU-level scheme.

power producers passing on costs of free allocations to electricity prices, the European Commission decided to eliminate these unethical practices (*windfall profits*) (see MacKenzie 2009) by introducing full auctions for the power sector. Windfall profits, over-allocation of emission allowances in the first phase of the EU ETS (2005–2007) and a difficult process of assessing National Allocation Plans in the second phase (2008–2012) inclined the European Commission to revise the system in a substantial way (European Commission 2008). The three main objectives of the European Commission with regard to the new EU ETS system were to: (1) fully exploit the potential of the EU ETS to contribute to the EU's overall greenhouse gas reduction commitments in an economically efficient manner, (2) refine and improve the EU ETS in the light of experience gathered, (3) contribute to transforming Europe into a low greenhouse-gas-emitting economy and create the right incentives for forward looking low carbon investment decisions by reinforcing a clear, undistorted and long-term carbon price signal (European Commission 2008: 3). An important objective influencing a new design of the EU ETS was to create a possibility of linking the European carbon market with emission trading systems in other parts of the world. A linking potential should be guaranteed by simplicity of allocation through auctions and further exchanges of CDM credits for emission allowances (EUAs) (2008, p. 10–11).

From 2013 onwards, there for the first time would be one cap for the whole EU ensuring that a 20% reduction target was achieved by 2020. One cap based on historic emissions, according to the Commission would provide „a long-term perspective and increased predictability, which is required for long-term investments in efficient abatement” (2008: 7). The cap would linearly decrease by a yearly factor of 1,74% giving a clear message to investors about further emission reduction costs (p. 7). Auctions of emission allowances were acclaimed by the Commission as “best ensuring efficiency of the ETS, transparency and simplicity of the system” (p. 7). Auctions, due to the Commission, would allow avoiding undesirable distributional effects. They comply best with the “polluters-pay principle” and reward early action to reduce emissions (p. 7). The Commission stated that “allocation for free would constitute state aid which must be justified under Article 87 and 88 of the EC Treaty” (2008: 11). Allocation of emission allowances through auctions would become a rule for power producers. No free allocations should also be made to new entrants and carbon capture and storage installations (p. 15–16).

However, since in 2008 emission reduction targets in the third countries comparable to those in the European Union were still absent, the Commission saw it necessary to protect its industry from losing competitiveness on global markets. It perceived a risk of “carbon leakage,” i.e. “relocation of greenhouse gas emitting activities from the EU to third countries and thereby increasing global emissions” (p. 7). The Commission proposed a gradual transition for installations in sectors exposed to global competition from 80% of free allowances in 2013 to full auctions in 2020 (p.8). Transnational allocation to industrial installations would be harmonized and based on “benchmarks” which “should take account of the most greenhouse gas and energy efficient techniques, substitutes, alternative production processes, use of biomass,

renewables and greenhouse gas capture and storage” (p. 16). Benchmarks would be established before the 2013 trading period.

The Commission estimated that at least two thirds of the total quantity of allowances would be auctioned (p. 8). The proposal foresaw that 90% of the total quantity of allowances to be auctioned would be distributed according to the relative share of 2005 emissions in the EU ETS. For reasons of fairness and solidarity, and taking into account national circumstances, 10% of the total quantity of allowances to be auctioned would be redistributed from Member States with an average level of income per head that is more than 20% above the EU average. Though being sensitive to differences in economic development by dividing the EU cap, the Commission also took care to eliminate distortions to the inter-Community competition and to ensure the highest degree of economic efficiency in the transformation of the EU economy to the low-carbon economy. Thus the Commission found it “inappropriate to treat economic sectors differently under the Community scheme in individual Member States” (p. 15). It reiterated it by stating that there should be “no distortion of competition in the internal market due to differences in Member State implementation” (p. 43). This was an important move towards a greater control of the European Commission over the European carbon market and a step back from the principle of burden sharing which accompanied emission reduction efforts in the European Community since 1990s (see Schreus and Tiberghien 2007). Moreover, the Commission proposed that management of the EU ETS implementation was centralized and managed directly by the Commission (p. 43).

In its proposal, the European Commission problematized its allocation methodology in terms of efficiency. This issue occupied the Commission the most as the new EU ETS was supposed to be both internally efficient and perceived as such by actors from outside of the EU. What did the European Commission mean by “efficiency”? Efficiency stood for a fair competition and an equal treatment of polluters in the EU achieved by no preferential treatment to any companies, unless they were exposed to global competition. Efficiency of the system would also be assured by predictable emission reduction targets set by the European Commission in advance of the 2013–2020 trading period and a unified division formula of the EU-cap negotiated between governments in a political process. Allocation by auctions would produce an undistorted and strong carbon price signal—the most efficient market incentive for investing in green technologies.

Division of the EU-cap proposed by the European Commission would guarantee that the principle of “burden sharing” was obeyed and economically less developed countries would be allocated more allowances than the most developed countries in the EU-27. However, the meaning of this principle has changed since the late 1990s and first two phases of the EU ETS. When in October 1990 the European Community Ministers of Energy and the Environment announced that the European Community as a whole would seek to stabilize their joint CO₂ emissions at 1990 levels by the turn of the century, the three cohesion countries—Spain, Portugal and Greece—demanded a “burden sharing” approach that would allow them to declare their own reduction goals respective to their lower economic development (Schreus and Tiberghien 2007,

p. 20). The burden sharing approach was also adopted by the European Community in the 1997 negotiations at the Kyoto Conference (Schreus and Tiberghien 2007). It guaranteed a success when the European Commission pushed for an ambitious community-wide target by recognizing a need for differentiation in national targets. As a result, “only seven MS were expected to reduce their emissions: Austria, Belgium, Denmark, Germany, Italy, Luxemburg, the Netherlands, and the United Kingdom. Other EU Member States either pledged to stabilize their emissions (Finland, France) or to work to reduce the rate at which they were growing (Spain, Greece, Portugal, Sweden, and Ireland)” (Schreus and Tiberghien 2007, p. 33). According the 2008 proposal of the Commission, emission reduction targets for each EU Member State for a seven-year-long trading period (2013–2020) would be defined by one formula proposed by the European Commission in January 2008.

Thus what strikes in the Commission’s proposal is that the new allocation methodology led not only to a re-composition of the European carbon market but also to a change in relations between European actors. In the Directive we read:

The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission. In particular power should be conferred on the Commission to adopt measures for the auctioning of allowances, for transitional Community-wide allocation of allowances, for the monitoring, reporting and verification of emissions, for the accreditation of verifiers and for implementing harmonised rules for projects (p. 19).

The allocation method proposed by the Commission should thus be also perceived as a new project of the European Union where control over the allocation of allowances is transferred from the EU Member States to the European Commission and EU companies are defined as polluters whose performance with regard to emitting carbon dioxide should be controlled and governed mainly by the Commission. Thus the calculative space for carbon valuation and exchange has to be analyzed also as a space of relations between European institutions, companies, national governments and other actors such as NGOs, trade unions, think tanks etc. The European carbon market is entangled in processes of European integration and the boundaries of the market are drawn simultaneously with boundaries between various European actors and institutions like the European Commission, national governments and emitting companies. The debate which took place in 2008, after the Commission proposal was issued, challenged many of the Commission’s statements and the IFIEC method proposed a new problematization of the European carbon market “efficiency.” The IFIEC method did not only offer a new arrangement of the European carbon market but also of relations between European actors.

The IFIEC-method

An alternative to the European Commission’s proposal was proposed by IFIEC-Europe. IFIEC-Europe represents energy intensive industrial consumers where energy is a major component of operating costs and directly affects competitiveness. It represents industries in fifteen EU countries: Austria, Belgium, Czech Republic,

Denmark, France, Finland, Germany, Hungary, Italy, Netherlands, Poland, Portugal, Spain, Switzerland and United Kingdom (see Press Release 29 September 2006). In 2006 IFIEC-Europe expressed its concern with windfall profits that flew to the pockets of power producers and burdened industries with higher costs of electricity consumption. A press release issued in September 2006 stated that severe problems with the EU ETS “were endemic in the design and IFIEC” and they “present a serious threat to the competitiveness of EU energy intensive industry” (28 September 2006). Already at that time, IFIEC-Europe criticized allocation of emission allowances based on historic emissions and urged to consider ex-post adjustments of the allocations “as business is constantly adjusting against forecast as external factors affect the ability to trade as predicted” (28 September 2006). Thus already in 2006, a cap based on historic emission, which according to the European Commission would increase predictability of the system important for planning investments in green technologies, was perceived by the industries as a factor of unpredictability.

One day after the European Commission presented its proposal of the amendments to the EU ETS Directive (2003/87/EC) on 28 January 2008, IFIEC published its initial response “Challenging climate change targets require cost-efficient solutions” (29 January 2008). In the first paragraphs of the note IFIEC-Europe acknowledged the need to introduce strong emission targets and underlined the crucial role in this process played by industries. However, IFIEC-Europe’s President, Hans Grünfeld, expressed his concern about cost-efficiency of the proposed measures: “Climate change abatement at the pace and with the targets set by the EU can only succeed if cost-efficiency and avoidance of competition distortions to the EU economy are at the heart of the proposed measures. President Barroso explicitly promised to protect Europe’s energy intensive industries, but the methods proposed don’t remove the doubts about their effectiveness” (29 January 2008). His concerns regarded the cost of partial auctions for industries and uncertainty caused by an arbitrary assessment of industries’ exposure to global competition by the Commission in advance of the launch of the new EU ETS. IFIEC’s argument was that in the rapidly globalized economy it is very difficult to assess in an administrative process which industries can include the cost of auctioning in the product price and which are not able to do that. Blaming the method proposed by the European Commission for causing uncertainty in the EU ETS, IFIEC claimed that “with this degree of uncertainty, the investment climate for energy intensive industries over the next years will certainly suffer” (29 January 2008).

IFIEC also criticized the Commission’s proposal to introduce full auctions for the power sector: “furthermore, the EU ETS allocation rules in the 1st and 2nd trading periods caused and still cause, immense revenues for electricity producers, making electricity unjustifiably expensive for consumers. The EU Commission believes the only way to avoid the present flaws is to move to full auctioning to the power sector. This only further damages IFIEC’s member companies, which have to pay the resulting high electricity prices” (29 January 2008). IFIEC-Europe pointed out that windfall profits which were one of the causes for the Commission’s new allo-

cation method will in fact not be out ruled: “furthermore, the EU ETS allocation rules in the 1st and 2nd trading periods caused and still cause, immense revenues for electricity producers, making electricity unjustifiably expensive for consumers. The EU Commission believes the only way to avoid the present flaws is to move to full auctioning to the power sector. This only further damages IFIEC’s member companies, which have to pay the resulting high electricity prices” (29 January 2008). Hans Grünfeld stated that “enhancement of market concentration in the power market won’t be solved. It will continue to work—supported by the EU ETS rules—primarily to the benefit of the large players, and most of all those with nuclear power capacities” (29 January 2008). Having pointed out its main arguments IFIEC came up with an alternative proposal: “IFIEC’s clear statement is that given the agreed need to avoid leakage of emissions and jobs outside Europe and while the EU is alone in introducing climate change initiatives, sectors must be granted free allocation of allowances based on benchmarks related to actual production” (29 January 2008).

On 17 April 2008, IFIEC issued another press release. It was titled: “ECOFYS report supports economic and climate policy merits of an IFIEC alternative to auctioning.” Already in the first paragraph IFIEC states that “after a thorough investigation of the alternative proposed by IFIEC, ECOFYS, a research and consultancy company with broad experience and a clear mission to sustainable energy supply has concluded: Applying the IFIEC method in the electricity sector can save €billions for all EU consumers, while setting equal incentives for low carbon technologies and thus ensures the achievement of the CO₂ reduction target” (17 April 2008). The main principles of IFIEC’s method were outlined as follows “the IFIEC method builds on an allocation of free allowances based on a benchmark. The generation of windfall profits for power producers is avoided by linking the allocation to actual, not historical production. With this small change, windfall profits are set to zero. Adjusting the benchmark in later years means the overall CO₂-cap is ensured⁵” (17 April 2008). IFIEC stressed efficiency of its method in eliminating windfall profits not only at fossil fuel generators but also at nuclear energy companies: “while auctioning of carbon only affects fossil fuel generators, the ECOFYS report shows that the IFIEC

⁵ The IFIEC method was an allocation methodology based on benchmarks. Benchmark would be a yardstick for emissions for installations in the power sector as well as in the industries based on the best available technology in Europe. In practice it would mean that data about technologies used in given sectors would have to be collected in order to decide which among them is most efficient in terms of CO₂ emissions (most output with least CO₂ emissions). The most efficient technology would serve as a benchmark in a given sector. Companies which have the most efficient technology could even receive all CO₂ emission permits for free (but this was a matter of negotiations). All other companies would have to buy additional permits calculated as a difference that keeps them apart from the technological champion. The system would be organized sector-wise, so one benchmark for cement, lime, glass, steel industries. Another rule proposed by IFIEC said that there would be an ex-post adjustment of allocated EUAs to the actual production of a year n-1. This adjustment would be made for and granted in year n+1 (see EcoFys Report 2008). The major difference between the IFIEC method and the method of the European Commission concerned the rules of determining the supply of EUAs on the carbon market. While the European Commission proposed to determine the emission cap on historical emissions for the whole period between 2013 and 2020, IFIEC suggested adjusting the benchmark-related amount of EUAs on the market every year based on the actual production of a given company.

method can go further, as it also removes €20bn to €30bn a year of extra profits by nuclear power generators. IFIEC Europe believes that removing such extra profits would be to the benefit of a more competitive power market and would discourage further market consolidation by large incumbents” (17 April 2008). During the launch of the ECOFYS study that day in Brussels, Hans Grünfeld, President of IFIEC Europe, stressed: “with these economic merits and reduction incentives, an EU ETS with the IFIEC method can avoid the real threat of competitiveness disadvantage for EU industry and resulting carbon leakage. EU industry will be able to remain the global low-carbon leader, whilst further contributing to the EU’s climate policy” (17 April 2008).

IFIEC-Europe problematized the new EU ETS also in terms of its efficiency but defined it differently. Efficiency meant for IFIEC flexibility and adjustability of the EU ETS system to the rapidly changing economy. Thus efficiency of the method proposed by the Commission was put into question and a plea was made for connecting the EU ETS with actual economic performance of emitting companies. To treat industrial companies equally meant for IFIEC to account for big differences between them and their exposure to rapidly changing conditions of their operation on global markets. Thus IFIEC implied that fair competition and equal treatment cannot be guaranteed without giving more power and control over allocation of emission allowances to industrial players themselves. Actors also differently understood what certainty and uncertainty in the carbon market mean. What introduces certainty to the carbon market according to DG Environment introduces uncertainty according to the IFIEC-Europe. An efficient system meant for IFIEC also a system fair for all participants and not favoring some companies over others by consenting to windfall profits of nuclear power companies while eliminating windfall profits of coal-based power plants. IFIEC also implied a more diverse perception of themselves than the one implied by the European Commission. Industrial companies were not only “polluters,” but also vital elements in the emission reduction process and providers of wealth and employment in the EU.

The European carbon market organized according to the IFIEC method would thus be a different calculative space. While the European Commission proposal entangled it into the sphere of administrative processes managed and controlled by the European Commission and political decisions made between governments, the IFIEC method entangled it more into global economy and shifted control to companies. If the allocation of the EUAs was linked to actual production the European Commission would have to rely on data from companies about their performance. This would mean for the European Commission not only a great yearly analytical effort but also dependence on companies for data production and submission. This would ultimately also result in a different project of the European Union itself. Power which the Commission could accrue by controlling the process of setting most of the allocation rules (the share of the cap, the level of free allocations for particular industrial sectors and the pace of tightening the EU-cap) would have to be shared at least with the industrial players, their associations and governments representing them.

Justifying through Boundary Making

In this part I examine actors' justifications of their proposals. I argue that both the European Commission as well IFIEC-Europe strived to make their own proposal legitimate by arguing that it was "economically more pure," efficient and rational than the proposal of their opponent, which was "contaminated with politics" (see on purity Douglas 1991) and thus economically inefficient and irrational. Different justifications (on justification see Boltanski and Thevenot 2006) given by these actors were thus constructed around the same issue: "economic efficiency" and aimed at indicating a boundary between politics and economics. Despite the fact that actors participated themselves in a strategic and highly politicized process of designing a carbon market, they referred to markets as to some kind of "quasi-natural spheres" which could be more or less pure, true and undistorted. Actors essentialized markets in the way economic sociologists argue against (Callon 2009, Callon et al. 2002) and claimed that when markets are not contaminated with politics they work better and above all they produce an "undistorted price signal"—the most efficient tool for regulating actors' actions in a given market.

Cap Fixed Ex-ante or Adjusted Ex-post or How Not to Distort the Carbon Price Signal?

While the Commission proposed to establish the cap and the factor by which it would gradually be tightened for the third trading period (2013–2020), IFIEC-Europe proposed to introduce a mechanism that would enable justifications of the cap in relation to the actual performance of companies in the market. The IFIEC-Europe press release from 29 January 2008 stated it clearly that "only a mechanism that would allow adjusting emission allocation according to the actual performance of industries was regarded by IFIEC-Europe as a true market tool" (28 September 2006). The EU ETS as proposed by the European Commission in January 2008 did not qualify for IFIEC-Europe as a true market. To support this judgment one of my interviewees from IFIEC-Europe said, quoting Mark Lewis, Director of Global Carbon Research at Deutsche Bank: "the EU ETS is the only big commodity market without supply response if you have it fully fixed ex-ante."⁶ Decoupling of the EU ETS from the actual demand of electricity in Europe was regarded by the IFIEC-Europe experts I interviewed as the major flaw of the system which would not make it capable of responding to potential fluctuations in Europe's economic growth. The IFIEC-Europe expert argued that

Between now, 2009, and 2020 it is quite likely that we will have at least one if not two other economic downturns, hopefully not as severe as now but we will have it. What then could happen is that we could get again an EUAs' price collapse. If the price in long term would be round fifteen, twenty of twenty-five Euro that would be such a low price that the effect of the ETS would not be big. So the environmental effect of ETS would be low as well.⁷

⁶ Project interview, May 2009, Brussels.

⁷ Project interview, June 2009.

The IFIEC method, he explained to me, was an attempt to relate the amount of supply of EUAs to the actual economic performance of the industrial and power producers—to the real economy. However, he claimed the Commission officials would not listen to this argument. They did not follow his reasoning, he claimed. He referred to his meeting with one of the high level officials in DG Environment:

I said well, “listen, what you are doing is you try to freeze all the price signals for a decade. This is the same situation if your boss was a bit of my age. Let’s say he will retire maybe in a few years time. Now as a Director General he has a very high salary, maybe he doesn’t pay taxes now, I don’t know. But suppose he retires and he gets lower money, he is Belgian and he has to pay taxes and I tell you that he has to pay taxes till 2020 on his high income of 2006 and 2007.” And then she says “that’s completely something else. That’s a European tax not free allocation.” And then I say, “you know that’s the same.” “Anyway,” she says, “we will do you a favor, we don’t choose 2009 but we choose 2005–2007 so that will be quite ok.” “That’s no argument,” I said, “if you do that then certain sectors may have too much for many many years. Take steel, if you base their emission rights on their emissions in 2009 then it is quite certain, since steel went down 40% or even more this year, that it would be killing for them. So you never do it right unless you have the actual production, of course.”⁸

A more articulated answer justifying rejection of the IFIEC-method came from a DG Environmental official whom I interviewed in Summer 2009. He explained:

In our view an allocation based on production is a subsidy of emissions, so that reduces the impact, the incentive coming from the price signal enormously. So that’s what we were very much against. Also you don’t know in advance how much allocations you will actually hand out, so then you also don’t know how much you will auction or, even worse, it may trigger uncertainty on the cap on emissions. Therefore we have been very much opposed against it, any allocation based on real production in the industry or in the electricity sector. That’s really rubbish what they were saying. We are very much against it. (...) Also the full price of carbon allowance would not be included in the cost, because you would still get allocation for free back, so then also in terms of consumption wouldn’t change very much. Whereas when you have an ex ante allocation, you have the certainty of the cap, you have the full cost of the carbon price signal, that would be much more efficient system, which also will lead to a change in product prices to the extent possible and then reduce consumption of energy intensive products. And that will help to achieve the cap at a much lower cost throughout the year. Benchmark does not give a clear incentive to upgrade technology. That’s not true what they were saying. Of course the incentive for updating technology comes from the carbon price and not from the way to allocate. So under ETS we have now it is the full carbon price that is an incentive to reduce emissions and apply the most efficient technology. In the system IFIEC proposed it is only the difference between the benchmark and the carbon price which gives that signal, which is much less.⁹

Justifications coming from the IFIEC-Europe expert and from the DG Environment official imply different boundaries between economics and politics. While the expert from IFIEC-Europe argued that fixing the supply side—the emission cap—in a political and administrative process is an example of interference in the market which distorts its efficiency and the carbon price signal, the official from the DG Environment argued that any kind of free allowances, even if allocated according to technological benchmarks and adjusted ex post according to the actual production are subsidies which distort efficiency of the market and the carbon price signal. Where is the boundary between politics and economy? It seems to be shifting together with actors’ justifications which imply not only different understanding of these spheres

⁸ Project interview, May 2009, Brussels.

⁹ Project interview, June 2009.

but also different interests and visions of relations between European actors. For the Commission politics starts to contaminate the carbon market when emission allocations are made dependent on economic players. For IFIEC-Europe politics starts to contaminate the carbon market when allocations are fixed *ex ante* by an institution from outside of the market—by the European Commission. A member of IFIEC-Europe interpreted DG Environment’s position in the following manner:

I think it is typical for public services to be afraid of that, because they are afraid of loosing control, I think that’s the real reason for objecting against this proposal, because from an intellectual point of view, from an economic point of view it is clearly most efficient, there is no better solution to that. I think it has to do with the control. I mean for civil servants, for the politicians, it is very important that they have an idea that they have control. And they cannot control markets. And it is very easy for them to say, well you know over the last couple of years based on those years now you get these emission allowances. That’s it. If you are talking about actual numbers, it’s probably a little more complex, it’s more dynamic, it’s less easy to control and it involves uncertainty and risk and that’s exactly what civil servants despise. Uncertainty and risk that is the main thing, the main problem. From a company’s point of view you are dealing, you are used to dealing with uncertainty, that is basically what business is about and government is exactly opposite and civil servants try to avoid uncertainty and risk as much as possible. I think what they are fearing, they are deadly afraid of introducing risk and that’s the reason why they are so strongly opposed to these concepts.¹⁰

The explanation of the IFIEC-Europe’s position by DG Environment was much shorter: “I see that from their point of view it helps them avoiding adapting to climate change, because you have much less of a carbon price signal, so it reduces very much incentives to reduce emissions.”¹¹ These quotes show that organization of the European carbon market was also a struggle over power but not only understood as exercising direct power by one actor over the other, but rather a struggle over power which rests on a capacity “re-configure” (Latour and Lépinay 2010) or “translate” (Callon and Law 1982) reality according to actors’ projects. To re-configure or to translate means to re-order the reality, problematize it, ascribe new identities and roles to objects, re-define relations between objects in a network and assure their loyalty (see Callon 1986, Callon and Law 1982). The struggle between DG Environment and the IFIEC-Europe was thus a struggle between two projects which problematized the European carbon and its efficiency in a quite radically different way. This debate, whether to fix the supply of EUAs *ex ante* or adjust it *ex post*, ended with the European Commission winning it. My interviewee from IFIEC-Europe concluded this result with the following words: “we fix it *ex ante* and that’s it, said the Commission. We say that the Commission fixes it for 2 world wars. We don’t know what might happen during this period, what changes might happen, so this is a period of two world wars.”¹²

The Final Text of the New EU ETS Directive

This paper addressed only rhetorical aspects of negotiating the controversy concerning the method of emission allowances’ allocation. The formal institutional and informal

¹⁰ Interview, June 2009, Brussels.

¹¹ Interview, June 2009, Brussels.

¹² Project interview, May 2009, Brussels.

process of negotiations has not been examined¹³ here. However, it is important to briefly present final results of these negotiations, and namely the rules which were written in the final version of the directive. In the final text of the new DIRECTIVE 2009/29/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 April 2009 amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community, auctions remained the basic principle of allowances allocation (p. 64–65). The text also reiterated a conclusion that in order to avoid distortion in the intra-Community competition and to ensure the highest economic efficiency in the transition to low carbon economy in the EU, it is found inappropriate to “treat economic sectors differently under the Community scheme in individual Member States” (p. 65). However, while dividing the EU-cap, the Directive accounted not only for differences in economic growth in EU Member States and growth prospects of the less developed countries, but it also accounted for emission reduction efforts of some countries with respect to their Kyoto targets.¹⁴ This was especially important for the Member States which economies were “in transition” during the Kyoto negotiations. These countries, like e.g. Poland, reduced their emissions far beyond their Kyoto targets and demanded that in the post-Kyoto EU ETS (2013–2020), this effort is also taken into account.

Moreover, despite the fact that auctions remained the basic allocation principle for the third phase of the EU ETS, the Article 1c provided an option for transitional free allocation for the modernisation of electricity generation¹⁵ (p. 76). Interestingly, “transitional free allocations shall be deducted from the quantity of allowances that the respective Member State would otherwise auction pursuant to Article 10(2).”

¹³ The author provides a historical sociological account of negotiations of the amendments to the EU ETS in her PhD thesis.

¹⁴ 88% of the total quantity of allowances to be auctioned should be distributed amongst Member States according to their relative share of emissions in the Community scheme for 2005 or the average of the period from 2005 to 2007, whichever one is the highest. 10% of the total quantity should be distributed to the benefit of certain Member States for the purpose of solidarity and growth in the Community, to be used to reduce emissions and adapt to the effects of climate change. The distribution of this 10% should take into account levels of income per capita in 2005 and the growth prospects of Member States, and be higher for Member States with low income levels per head and high growth prospects. Member States with an average level of income per capita that is more than 20% higher than the average in the Community should contribute to this distribution, except where the direct costs of the overall package estimated in the Commission’s impact assessment accompanying the package of implementation measures for the EU’s objectives on climate change and renewable energy for 2020 exceed 0,7% of GDP. A further 2% of the total quantity of allowances to be auctioned should be distributed amongst Member States, the greenhouse gas emissions of which were, in 2005, at least 20% below their emissions in the base year applicable to them under the Kyoto Protocol.

¹⁵ By derogation from Article 10a(1) to (5), Member States may give a transitional free allocation to installations for electricity production in operation by 31 December 2008 or to installations for electricity production for which the investment process was physically initiated by the same date, provided that one of the following conditions is met:

(a) in 2007, the national electricity network was not directly or indirectly connected to the network interconnected system operated by the Union for the Coordination of Transmission of Electricity (UCTE);

(b) in 2007, the national electricity network was only directly or indirectly connected to the network operated by UCTE through a single line with a capacity of less than 400 MW; or

(c) in 2006, more than 30% of electricity was produced from a single fossil fuel, and the GDP per capita at market price did not exceed 50% of the average GDP per capita at market price of the Community.

This rule was introduced in order to prevent power sector companies from passing the cost of free emission allowances to electricity price by deleting them from the pool of allowances to be traded. According to one of the Polish officials interviewed in Warsaw in January 2009, this rule reflected the principle of IFIEC method which aimed at transforming emission allowances from financial securities into a *de facto* license for power generation and thus connecting emission allocation to the actual production.¹⁶

Conclusions

This paper examined two alternative proposals for organization of the EU ETS after 2012. The two projects proposed different methods for allocating emission allowances to European companies—different political-economic arrangements of the calculative spaces for valuing and exchanging the European carbon dioxide. While participating in a strategic and highly political activity of re-designing the EU carbon market and debating pros and cons of their projects, actors engaged in a process of drawing boundaries between two domains: politics and economics. The actors involved seemed to be highly reflective about the socially constructed and political nature of market design. They were aware of the fact that “the laws of the markets” (see Callon 1998) may differ and have an impact on how the market will work, what kind of externalities it will produce and what kind of inequalities may potentially result from these laws. However, when involved in politics of establishing the laws of the European carbon market, actors referred to markets as to spheres which can be more or less free, undistorted, pure or true, and thus essentialized markets as “quasi-natural spheres.” A pure, undistorted market is the one which is not contaminated by political decisions, which is not regulated by a central body, as according to IFIEC, or which is not distorted with subsidies and uncertainty generated by the performance of economic actors like industries, as according to DG Environment. A market in their accounts was ascribed some intrinsic qualities of its own type which could either be spoilt and contaminated or exposed and purified by different market designs.

The case studied also pointed to the fact that a construction of the European carbon market is tightly intertwined with processes of European integration. First basis for a more unified European Union were laid with the creation of a truly European commodity—carbon—which was framed as a European Emission Allowance (EUA). Around 11,000 European installations were brought to one European carbon market and bound by exchanges of this commodity with a clear prospect of including more installations in the future (see Zapfel and Vainio 2002). The project of the third phase of the EU ETS, the one discussed in this paper, brought further integration of the European Community through the instrument of emission trade. One EU-cap for 2013–2020 trading period, the same transnational treatment of particular European industrial sectors and more control over the system in the hands of the European

¹⁶ Project interview January 2009, Warsaw.

Commission result in a change of relations between European actors. Organization of the European carbon market can be thus examined as a joint reconfiguration not only of the calculative space for valuation and exchange of carbon dioxide, but also of relations between politics and economics, as well as between EU institutions, Member States and European economic actors.

Although not examined in this paper, negotiations of new allocation rules of the EU ETS revealed some strong path dependencies in the area of carbon trade in the EU. As Braun's (2009) and MacKenzie's (2009) accounts suggest, a small group of high level officials from DG Environment managed to take control and manage policy processes around the issue of carbon trade. Jos Delbeke remained the main figure in this area throughout last couple of years and the new EU ETS was still called "his child" by some of my interviewees. It goes without saying that an institutional position of Jos Delbeke and his colleagues from DG Environment helped them to inscribe the policy process into certain path dependence. As some of my interviewees said "once a Directive proposal is on the table, it is almost impossible to change it substantially." Therefore, the IFIEC proposal which was positively reviewed by Ecofys only in April, came relatively late to be able to substantially change the architecture of the EU ETS.

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