Winter 12-31-2011

The Carbon Frame: Lobbying for Renewable Energy in the European Union

Kyle S. Herman
University of San Francisco, ksherman2@dons.usfca.edu

The Carbon Frame:
Lobbying for Renewable Energy in The EU

In Partial Fulfillment of the Requirements for the Degree

MASTER OF ARTS

in

INTERNATIONAL STUDIES

by
Kyle Stuart Herman
December 2011

UNIVERSITY OF SAN FRANCISCO

Under the guidance and approval of the committee, and approval by all the members, this (research project or thesis) has been accepted in partial fulfillment of the requirements for the degree.

Approved:

_____	_____
Advisor	Date
_____	_____
Academic Director	Date
_____	_____
Dean of Arts and Sciences	Date

Table of Contents

Definition of Terms

Energy Efficiency (EE): Though this paper does not explicitly deal with energy efficiency, it is understood as an integral part of renewable energy.
Emissions Trading Scheme (ETS): Carbon emissions are given a price, emitters must either decrease emissions or trade/buy carbon offset credits.
EU: European Union 27 Member States and collective political institutions (Commission, Council, Parliament) (see map below)
European Council: Institutional arm of the EU representing heads of state and top politicians.
European Commission: Unelected body of EU responsible for drafting all Directives (legislation).
European Parliament: Over 700 members representing all countries of the EU-27.
EU Directive: Legislation made at the European level after passing through all EU political bodies, eventually signed into law by majority of MS.
Green-10: Group of ten largest Environmental groups bound together to lobby for Environmental policy in the EU. Included are: European Environmental Bureau (EEB), Bird life International, Climate Action Network Europe (CAN-E),Bank Watch Network (CEE), Health and Environment Alliance (HEAL), Worldwide Fund for Nature (WWF), Greenpeace, Friends of Earth (FoE), Transport and Environment (T &E), International Friends of Nature (IFN). They have membership of over 20 million people.
MEP: Member(s) of the European Parliament
INFORSE: International Network for Sustainable Energies
Fossil Fuel Energies: All forms of coal, gas, and oil as well as uranium for nuclear energy (technically a mineral fuel).
Renewable Energy (RE/RES): Geothermal, solar-thermal, photovoltaic, wind offshore/onshore, hydro power under 25 MW, wave/tidal energy, bio-fuel (from sustainable energy crops). In this paper I refer to only renewable energy commercially operating in the EU.
Sustainable Energy: Different from RE because sustainable energy takes into account social situations, developing sustainable RE systems to adapt to local environments.

Specific EU Legislation addressed in this paper:
(for details regarding the legislation listed below, see Appendix I-A through I-H)

Energy Efficiency Directive (EED) (proposed June 2011): This proposed Directive lays out options for EU MS to develop energy efficiency, underscoring the potential to increase overall monetary savings, and hence less import of foreign energy. (Appendix I-A)
Renewable Energy Directive (RED) (passed April 2009): The EU-27 must, on average, achieve 20% Renewable Energy from total primary energy by the year 2020. (Appendix I-B)
Energy Savings Directive (ESD) (2006): A precursor to the EED, the ESD promotes energy efficiency and require MS to make national plans to achieve 20% energy savings by 2020. (Appendix I-C)
European Public Buildings Directive (EPBD) (into effect 2012): Lays down regulations for energy efficient renovations in EU public buildings. (Appendix I-D)
Labeling Directive: (updated 2010): Required a number of EU products to show energy use labels so customers are better informed of energy use in products. (Appendix I-E)
Eco-Design: Requires products to be designed to use minimal amounts of energy, including energy use in standby settings. (Updated 2010-Ongoing process) (Appendix I-F)
Combined heat and power (CHP) (2004): Promotes the use of co-generation of heat and power. (Appendix I-G)
20/20/20: EU energy Targets for 2020: Binding targets to reach 20% RE from primary energy, decrease emissions by 20%, and save 20% energy by 2020. (Appendix I-H)

Map of EU-27 Member States (in yellow).

Map courtesy of European Commission Website: www.europa.eu

Acknowledgements

I would first like to acknowledge the University of San Francisco for accepting me into a prestigious and challenging Masters Program. The Professors I had during the program challenged me to develop unique world-views. Everyone in the Program was a great help to my success. I am grateful that I was encouraged to intern in Denmark and permitted to complete my thesis while living abroad.

I would like to acknowledge the International Network for Sustainability (INFORSE), including Gunnar Boye Olesen and Judit Szoleczky, Kate Herman, Ryan Herman, Larissa Hernandez, the Karlberg family,The Bombeiros, and Professor Stephen Zavetoski.

Chapter I: Introduction to the Thesis

Introduction and Statement of the Problem

This thesis investigates lobbying for renewable energy (RE) in the European Union (EU). The findings indicate that framing key policy language is crucial for successfully lobbying RE policy. Lobbying is "strategic communication of specialized information" (M. Nilsson, L. Nilsson, Ericsson 2009: 4455) and serves as a backbone for European energy politics by forming parameters for debates. Policymakers need specialized information and lobbyists supply this in exchange for political influence. Similarly this information needs to be understood by citizens so they may enter informed decisions when voting. One way lobbyists can articulate this information is through framing policy language. Framing is "interpretative schemata that allow individuals or social groups to locate and situate social phenomenon" (Goffman 1974). A case study has been conducted here in order identify the constraints to the environmental non-governmental (ENGO) RE lobby in the EU. The carbon frame has been found to be the most significant constraint to this lobby.

The carbon frame uses carbon as a central pillar for energy debates. This key energy frame needs to be reframed to focus on energy production, which can encourage local energy solutions. A strong RE lobby should reframe the central carbon frame because presently it aligns too well with conventional energy systems. Conventional energy systems burn fossil fuels for energy (coal, oil, natural gas; and uranium), releasing green-house-gases (GHGs) into the atmosphere as a byproduct; other related problems are securing fossil and uranium energy and building massive infrastructure projects to

support fossil fuel pipelines.

Of course there are environmental problems associated with conventional energy systems. However, within a social scope these systemic problems should be addressed because the strict environmental scope may weaken an argument promoting RE. Though limiting emissions from fossil fuels has become a generally accepted way to halt systemic malfunctions, indicated by instruments such as emissions trading, it glosses over the central causes of emissions. The carbon frame[i] has successfully maintained the idea that limiting carbon emissions will solve these multiple crises.

The illogical method of energy production, rather than the waste byproduct of that energy production, should be addressed by RE lobbyists. The carbon frame has decoupled the method of energy production from the resulting waste. If the problem is re-framed to address the method of energy production, lobbyists pressing for progressive RE changes can begin to situate arguments within a social context. This can promote local and democratic energy decisions. Producing the majority of society's energy needs from fossil fuel and uranium is an illogical method, resulting in dangerous increases in GHGs (rather than simply carbon emissions as the carbon frame assumes).

A shift in this debate, spearheaded by an intelligent RE lobby coalition, can reverse the misinformed view of RE as a solution to an environmental dilemma, when it is in fact a significant step forward in human development. This shift can allow citizens to better understand the issue, while RE lobbyists may also gain power by stepping outside the carbon frame. The carbon frame has engulfed a large part of the RE legislative process. Thus renewable energy policy is overshadowed by emissions policies, which mainly attack carbon. Meanwhile, extremely harmful emissions, such as methane

and nitrogen (due to agricultural practices), are largely unregulated because carbon has become the sole focus. Thus the intelligent RE lobby should understand the possibilities for this language shift.

The possibility to source all of society's energy needs from renewable energy, supported by INFORSE 100% RE scenarios[ii], should be the focus of new RE frames.[iii] The idea that carbon should be controlled in order to solve climatic problems is illogical and misses the point. Renewable energy, and related innovations, must be fostered because they are logical and limit the alarming acceleration towards entropy entropic increases measured in the world system today. These accelerations towards entropy are in large part due to fossil and uranium energy systems.

Fossil and uranium fuels are typically centrally controlled, limiting energy innovation and citizen decision-making powers. It is possible to significantly limit this trend towards higher entropy, while also increasing social well-being, by increasing RE (ultimately to 100% of total energy supply) rather than increasing the control of carbon. However, controlling carbon does not automatically increase the share of RE. RE confronts systemic problems at their source, energy production, rather than simply addressing their negative implications, namely harmful emissions.

A shift towards democratic energy solutions is a natural result of RE because citizens are ultimately responsible for implementation of local RE. Citizens can choose where and when to source their energy. Energy innovation can result by opening up the electric grid, for example, to allow consumers to sell excess RE. It requires little capital investment by the state, while shifting decision-making to citizens. This is a progressive social development, not an environmental cause, or a silver bullet solution to save the

climate.

The focus needs to be society not climate, carbon, or the environment. The conversion rate of renewable energy is nearly 100%, a very progressive human development. While on the other hand fossil and nuclear energy convert from 20-40% into usable energy[iv], which was a progressive human development in the 20th century because it sourced energy from fuel rather than slave labor. However, in the 21st century these processes are outdated and a string of negative consequences result. Therefore RE is highly beneficial to many aspects of social and economic development. While conventional energies expel, as waste, vast amounts of energy into the atmosphere, RE systems operate at nearly 100% efficiency, only losing energy in transmission lines.

Legislation in the European Union suggests a potential shift towards a 100% RE society, but it has been met with fierce opposition.[v] One EU Directive requires twenty-percent renewable energy for overall energy consumption by the year 2020.[vi] Another proposed Directive, the Energy Efficiency Directive[vii], proposes strict energy efficiency measures. With twenty-seven member states (MS) in the EU these policies have spillover effects into the rest of the world. In many ways the successes or failure of the EU energy and climate legislations will add to the construction of related policies around the world. Energy lobbyists maintain access to policy-making decisions, and play a crucial role in RE policy development. Therefore, by presenting RE lobbyist data, this paper reveals clues for changing RE policy in the EU.

The Objective of This Paper

This paper demonstrates the carbon frame's dominance throughout RE lobby activity in the EU and how this inhibits the development of more progressive RE policy. The carbon frame fixes the spotlight on resulting issues rather than the systemic methods of conventional energy production. It sidelines renewable energy because it frames away from the idea to change the source of energy to renewable sources. The most common example of the carbon frame is: "If carbon emissions are limited below a certain percentage and before a certain year, catastrophic climatic changes will be averted." The carbon frame is used by lobbyists and policy-makers as a backbone for climate change policies. In other words stakeholders situate RE discussions within the carbon frame. The carbon frame distorts essential causes, and leads to illogical solutions such as carbon capture and storage (CCS).

Carbon capture and storage is the idea, still unproven, to capture carbon emissions at source (e.g. at the top of a coal smoke stack), and funnel these underground for permanent storage. Though RE lobbyists in the past may have lobbied in favor of CCS as the lesser of two evils, it was before knowledge of the broader implications of CCS was well known. CCS decreases energy innovation (crucial for RE), and increases control of centralized energy (predominantly fossil and nuclear energy). CCS de-manufactures carbon to gain carbon credits. In other words, the carbon frame is used to support CCS construction, which creates profits by appearing to manage carbon emissions.

The carbon frame also leads to widespread acceptance of natural gas and nuclear power because they are considered low-carbon technologies. Natural gas dispels less

carbon emissions than oil or coal, and nuclear energy discharges only small amounts GHGs. However the methods used to convert these energies into usable power result in further systemic problems. The extraction of natural gas releases significantly more carbon into the atmosphere, while also contaminating ground water. Decommissioning a nuclear power-plant, because the waste is leftover for thousands of years, is both costly and environmentally perilous (Olesen 2011). Most importantly, the above technologies sideline local, innovative, energy solutions.

Though re-framing of the carbon debate could be a powerful tool for the RE lobby, it is not often attempted by ENGOs. Many ENGOs lobbying in the EU appear to misunderstand the constraints of the carbon frame. ENGOs predominantly lobby within this frame without considering negative implications such as the frame's failure to directly address illogical methods of energy production. The carbon frame is not re-framed by the ENGO lobby.

Thus the ENGO lobby is inundated by seeking policy results that give only an appearance of strong RE policy. At times these policy results are inadequate because they don't address the method of energy production. For example, ENGOs have lobbied for stricter carbon emissions targets (a policy capping emissions) without considering potentially perverse results of higher targets. Higher emissions targets focused on limiting carbon can easily lead to the introduction of more natural gas and CCS investment. Capping emissions and granting rights to emit carbon may not drive RE investment because nuclear energy is much more profitable and still considered a low carbon energy source. Similarly natural gas, which is a highly lucrative investment at the moment, is often framed as a low-carbon energy source.

The EU emissions trading scheme (ETS) has functioned for several years, yet most carbon profits were channeled into CCS rather than RE.[viii] That such a large amount of investment is driven into CCS is quite alarming because capital investment is crucial for developing RE, in contrast with high operating costs of conventional fuels, and therefore CCS detracts from RE funding. It is a pivotal time to re-frame the carbon debate in order to avoid CCS, as well as to avoid increasing support for nuclear and natural gas. These technologies will continue constraining RE investments, limiting public perception of RE, and limiting the scope of RE lobbying,

Mis-frames such as the carbon frame continue to implicate the climate as the systemic dilemma, when in reality centralized energy is a systemic dilemma (Goffman 1974). A coalition could re-frame pivotal mis-frames In this case, mis-frames typically frame a resulting problem, such as carbon, as the systemic problem; on the other hand, an astute RE coalition could frame the production of energy as the main problem. The starting point for a RE lobby is to re-frame misleading frames to create local energy innovations.

Innovation from local energy solutions worked quite well to develop wind energy in Denmark. The Danish government allowed citizens to sell RE back to the grid, which quickly led to local innovations by empowered citizens. The result was a dramatic shift towards wind energy, largely owned by citizens, leading to a secure and clean energy system in Denmark, underscored by democratic rights.

Research Questions and Theoretical Framework

Framing involves selecting appropriate language to gain leverage over political decisions. Similarly, it is critical to understand timing and venue choice or, in other words, when and where to use certain frames. This is a key tactic for the RE lobby because it is an inexpensive way to increase lobby power. Power and economic resources are usually not readily available to the RE lobby. Therefore a successful RE coalition should successfully re-frame to increase lobby power, and expose energy choices to citizens, while remaining cognizant of correct venues and timing for re-framing.

A concentrated RE coalition is different from the ENGO RE lobby because it can have a small membership with diverse actors. This coalition could include, for example, The International Network for Sustainable Energy (INFORSE), a cities for 100% RE organization, and an electrical workers union. All coalition partners would understand and agree on the social benefits for moving towards a 100% RE-based society. INFORSE would provide expertise on RE policy language at the EU level; the city network could gather data about local RE implementation and regional RE legislation, while the electrical workers union could support the argument that RE provides jobs and stimulates the economy. The final research questions explore how this coalition should be created and function, and are discussed in the conclusions and recommendations section.

Methodology

This research synthesizes two methodologies, qualitative interviewing and participant observation, in order to understand the carbon frame and expose avenues for a new RE lobby coalition. I was able to gather pertinent data from within the EU legislative process by lobbying for INFORSE. Qualitative interviewing exposed lobby positions and highlighted the prevalence of the carbon frame, while participant observation allowed re-frames and coalition ideas to be tested.

Qualitative Interviewing

Time period: June 2011-November 2011

Using qualitative interviewing I was able to collect specific evidence to support this paper's main arguments. I decided to use this method of data collection because, with timing and venue choice, I could define lobby framing more accurately. With qualitative interviewing, I ascertained dominant frames among various actors and at different conferences. I had some freedom to choose when and where to approach certain actors. These freedoms allowed me to find gaps in the ENGO lobby and showed pivotal frames.

As an active RE lobbyist, I was able to conduct interviews during and immediately after policy conferences. Two main advantages resulted from this privileged access. First, I could ask questions during the conferences to gain valuable insights into the RE lobby. Second, by participating in the conferences, I could carefully construct interview questions to ask after the conference had finished. This can potentially wield more substantial data, in comparison to other interviewing techniques, because the interviewee is more comfortable and the subject matter is current. I had the luxury of

choosing the time and place of the interviews, which can be a significant challenge using other methodologies.

I interviewed many lobbyists from NGOs, ENGOs, industry, and government at various conferences. These lobbyists came from: Greenpeace, World Wide Fund for Nature (WWF), Friends of Earth-Europe (FoE), Climate Action Network (CAN), INFORSE (International Network for Sustainable Energy), European Photovoltaic Industry Association (EPIA), Vattenfall (a Swedish energy firm, EU Commission, Eurelectric (a European electricity union), Shell, and EoN (a German energy firm). Over thirty interviews were conducted among actors in the RE field including from NGOs, government, civil society organizations, social organizations, industry (fossil fuel and RE), financial analysts, and private consultants for RE.

I conducted many interviews with Gunnar Boye Olesen, the secretariat for INFORSE, while working as an intern. He has been in the field of RE lobbying for over two decades and offered data regarding different lobby tactics. Gunnar is involved in lobbying at local (Aarhus, Denmark), national (Denmark), EU-wide (Brussels), and international levels (UN Conference of Parties: Copenhagen 2009, Cancun 2010, Durban 2011).

Participant observation

Time period: August 2011-November 2011

The primary reason I decided to use participant observation was to test re-frames and gather data from stakeholder reactions. Secondly, I could collect data exposing some weaknesses in the ENGO lobby, while revealing spaces for a new coalition. This would

be difficult to do as a researcher because I would not have access to some policy conferences. The data resulting from this method exposes gaps in the RE lobby otherwise difficult to ascertain through other research methods such as discourse analysis.

At INFORSE I followed important RE policy conferences in the EU. These included conferences held by INFORSE (Hamburg Seminar, Brussels Stakeholder Forum); conferences in the European Parliament (EED Debate October 4th, EED Debate November 8th); conferences in Brussels held by other organizations (CAN-Europe, EU Wind Lobby-EWEA, European Climate Foundation-ECF); and one held by UNRISD in Geneva. These conferences exposed some aspects of policy-making, lobbying, and framing for RE in the EU.

During some conferences I tested reframes to gain a clearer picture of dominant frames. Participating in the lobby process exposed many nuances involved in RE lobbying, particularly the importance of framing. Access to RE conferences, and freedom to enter debates, was a primary advantage to this method of data collection.

Significance of The Project

The first significant result of this project is an exposure of the carbon frame. This paper questions carbon emissions debates so long as they remain in a neo-economic framework. Presently carbon trading is an instrument generating wealth without significantly increasing the share of RE. A re-frame of systemic causes, explicitly due to concentrated energy extraction methods, is one of the most vital steps for a successful RE lobby. This could have repercussions for the climate change policy at many levels, since the carbon frame is presently quite dominant. A second significant output is an added understanding of RE lobbying in the EU with direct avenues for intelligent policy change. This is useful to a NGO, a RE firm, or any stakeholder interested in building more effective RE policy in the EU. Some findings may also apply to lobbying for RE in Washington.

Other research has not specifically connected the carbon frame's constraint on the RE lobby to the need for a new RE coalition. This paper demonstrates how large ENGOs (for example Greenpeace, WWF, Friends of Earth etc.) have some difficulty re-framing RE language because they have a broad scope of action covering many varied environmental problems. Whereas a coalition for RE energy can focus predominantly on local sustainable energy solutions, environmental groups currently lobbying RE policy are plagued by lobbying for all environmental causes. In many instances these environmental lobby efforts interfere with each other.

The narrow environmental scope is a major pitfall because ENGOs lose entry points for accessing key decision-making. The ENGO then has difficulty scripting policy language. Stepping outside the environmental scope opens up the social and political

dilemma inherent in the transmission and use of conventional energy. By implementing renewable energy, old energy power structures weaken, allowing more local energy production. As a bonus the climate and environment will benefit from RE.

As a primary result, RE offers more social equality, higher quality of living, and more freedom to choose livelihoods among other, nearly basic, human rights. The right to harness and use energy is nearly a basic right because it is essential for survival, just like food, water, and shelter.

Limitations

Qualitative interviewing helped compile data regarding dominant frames and ENGO lobby techniques. Likewise, participant observation allowed re-frame testing at different venues. However these methods failed to expose some hidden data, particularly lobby positions actors didn't want to reveal, such as particular frames. If I had acted as a researcher at policy conferences, some of this data could have been exposed because I would have been a more neutral participant.

A main limitation in this research was lack of resources, both personally and within INFORSE. This year INFORSE received no EU funding so all conferences and debates I attended were paid with school loans. Some important conferences I was unable to attend and thus could not follow too closely with the current debate. I therefore was unable to put forward some of my most important ideas, including some criteria for to building a strong lobby coalition. Also, working as an intern with INFORSE, I have developed a slight bias towards renewable energy.

Other limitations to this study are institutional power relations, entrenched

interests, and government monopoly of energy sources. Power relations among energy suppliers and government are strong throughout the EU. Likewise, entrenched interest by both industry and government in the field of energy continue to dominate the outcome of many RE policies in the EU. National governments in the EU-27, represented by the European Council, are becoming increasingly wary of the EUs encroachment on their energy decision-making powers. This limits the results of this research because re-framing and coalition building are bold recommendations inside such a power vacuum.

Chapter II: Literature Review

Introduction

The literature reviewed underscores the importance of framing for achieving desired lobby results and criteria for building a RE coalition to this end. Framing is defined and explored in the present EU RE policy, then integrated into an understanding of groups and coalitions.

Two gaps in the literature are revealed. The first is a lack of research connecting carbon frame with a RE coalition. Secondly no research used participant observation, to the degree of lobbying RE policy, to collect empirical data. Also, though qualitative interviewing is a method used in other research, the interviews were typically not conducted at policy conferences. Therefore during my research I placed emphasis on the unique opportunity to use qualitative interviewing immediately after RE policy conferences.

The second section outlines techniques for coalition building, including the use of framing, and reasons to avoid becoming a “large group.” Members of the Green-10 including, among others, Greenpeace and Friends of Earth, are large environmental groups with some inherent weaknesses due to their size. The literature explores some reasons for these weaknesses. Coupled with these theories, criteria for the RE coalition is unveiled. The coalition can lobby RE policy with a local and social focus rather than broadly lobbying for the environment. Whereas members of the Green-10 are skilled in raising public awareness of environmental issues, the RE lobby coalition can be skilled at promoting specific RE policy required to drive social change.

Framing, Re-framing, and Mis-frames

In terms of lobbying, framing refers to specific language employed to gain desired policy results. Framing allows diverse actors to discuss a common subject, contributes to the understanding of the subject, and establishes parameters. “Frames refer to interpretative schemata (Goffman 1974) that allow individuals or social groups to locate and situate social phenomenon within their life space in a way that makes these phenomenon meaningful (Snow et al., 1986)” (Mayer et al., 2010: 757). In this sense framing brings a particular subject into the limelight; subsequently, framing allows policymakers to address the framed subject. Framing can also be defined as “ways of selecting, organizing, interpreting, and making sense of a complex reality to provide guideposts for knowing, analyzing, persuading, and acting” (Rein and Schon 1993). The RE coalition will develop frames able to organize the RE into clearer language emphasizing local solutions. Building important re-frames will persuade policy-makers to act to develop more progressive RE policy by allowing local solutions for sustainable energy.

Framing is an “access good” (Crombez 2001) sought after by astute lobbyists. This access good is one of a few key points of entry to influence EU political Institutions (ibid). Interest groups can gain access goods by demonstrating to policymakers that legislation directly influences their industry; the former therefore have integral knowledge about how legislation should be crafted (Mazey and Richardson 1993; Kohler-Koch 2003; Greenwood 2007). Interest groups are an integral part of policymaking because they bring information to policymakers outside the scope of the policymaker’s general knowledge (ibid). Therefore, a RE coalition with ties to worker unions, by representing a measurable percentage of the economy, can build credibility for

RE lobbying; however the industry connected with the coalition must be sufficiently convinced of the possibility to move towards a 100% RE society.

Before the Emissions Trading Scheme (ETS) was introduced in the EU, a uniform emissions tax covering other emissions was proposed. A tax could have supported the development of RE because it would have explicitly increased the cost of fossil fuel energy; on the other hand, carbon trading did not effectively make fossil fuel technology more costly because carbon credits were given free, and ETS profits were channeled into CCS rather than RE. The industry won the lobby game during the development of the ETS legislation because it ended in a carbon trading instrument predominantly favoring powerful companies and large emitters of GHGs. Trading carbon offered a window for natural gas to continue while a uniform GHG tax could have aligned the price of this energy with RE. "[Climate policy] motivated the policy makers to seek information from interest groups, and its political salience and economic consequences for key economic sectors in Europe also provided a strong incentive for interest groups to supply information" (Nilsson et al. 2009: 4456). In other words, interest groups shaped the climate policy. In the end, the largest carbon emitters were given free carbon credits. This win for the industry lobby demonstrated the "Commission is more open to listen to stakeholders they want to regulate" (Markussen and Svendsen 2005: 246). The ETS legislation was primarily written and co-opted by industry from the beginning. This is an important point to note for the RE coalition. If the coalition involves an industry partner experienced in RE development, policy-makers would be more inclined to listen to their recommendations.

An example of an out-lobbied RE legislation was "Guarantees of Origin" (GOs),

which required energy labeling to show the source of the energy (e.g. if it came from RE or coal). “Hence it is a flexible mechanism intended to facilitate meeting the EU [2020] targets at the lowest possible cost” (Nilsson et al. 2009: 4454). It would have lowered RE costs because the market would then be open to many private actors, creating dynamic local solutions suitable for local differences in climate. During lobbying for this legislation free-market framing was used, for example presenting GOs as inconsistent with free-market goals. This was a mis-frame because GOs would have opened the market to more actors, thus aligning RE with free-market principals. However the frame alarmed EU MS and ENGOs. If Guarantees of Origin passed into legislation, RE would have increased by allowing private actors to invest in RE and consequently would have stimulated RE social innovation. "Under the proposed system [GOs], member states as well as private actors would be able to buy and sell GOs in order to meet targets and obligations on the share of RE in energy supply” (ibid: 4454). If the GO legislation became a Directive it would have led to reframes in favor of RE. Reframes would arise by nature of GOs focusing the issue on the source of energy, rather than carbon emissions. Further, GOs would have allowed both private actors and MS to develop many new RE, which would have fostered innovation from below, similar to what the Danish wind energy example has shown.

GO trading was halted by temporary alliances among industry, national governments and NGOs. Even ENGOs fought against the GO legislation because they thought it would create unfair advantages for RE energy in certain places (because it is cheaper to install RE in some places) (ibid). However during this lobby process many ENGOs failed to comprehend that GOs could have helped re-frame the entire RE issue.

The unequal RE distributions should have been a trade-off, or "frame bridge," for developing a new RE frame. A RE coalition could have used the GO debate to its advantage to promote innovative, local, sustainable energy solutions. No matter the outcome of the GO legislation, it could have used these new frames to create a frame bridge to subsequent RE legislations.

Frame bridging brings together groups from different sectors in society in order to confront common causes (Mayer, Brown, Morello-Frosch 2010). Frame bridging can be used to fuse organizations together. "By actively shaping and constructing these collective action frames, coalition leaders bring together individuals from diverse organizations [...] Framing highlights what holds a coalition together" (ibid: 450). The RE coalition needs to focus on powerful re-frames with the aim to achieve certain RE policy results, while being aware of frame bridging to connect RE legislation. In the present ENGO lobby each RE legislation remains in a vacuum, nearly unconnected with frames from past legislations.

Similarly frame transformation can be a powerful tool for a RE coalition. Frame transformation attempts not only to bridge a frame between actors, but also to underscore the prevalence of deep-rooted societal problems requiring immediate attention. Frame transformation takes "what was previously seen as an unfortunate but tolerable situation [and defines it] as inexcusable, unjust, or immoral […] an unjustice frame" (ibid: 454). The carbon frame is such an injustice because it does absolutely nothing for social development of local sustainable energy. A large percentage of ETS profits are channeled into CCS projects, with little consideration of local sustainable energy which would render those projects completely unnecessary. The most powerful frame transformation

serves as a new master frame causing the

> displacement of one universe of discourse by another and its attendant rules and grammar for putting things together (Snow and Machalek, 1983: 265-66) […] [however] One of the major consequences of this more sweeping variety of frame transformation is that it reduces ambiguity and uncertainty and decreases the prospect of "misframings" or interpretive "errors" and "frame disputes" (Goffman, 1974: 301-38). In short, everything is seen with greater clarity and certainty. (ibid: 475)

This shows the possibility for changing the carbon frame into another master frame. However, the re-frame of carbon must avoid "mis-framings" (ibid), such as a re-frame that logically appears to drive renewable energy but, after geopolitical concerns enter, works in the opposite direction. An example of such a mis-frame is the "security of supply" frame.

The security of supply frame, which is predicated on the idea that fossil and uranium energy sources add to the insecurity of a state, is considered by many ENGOs as a valid frame to promote more RE. However this frame is in fact detrimental to the RE lobby because it isolates MS within the EU; member states are increasingly more wary of EU legislation impeding on their energy sovereignty. "[E]nergy policy remains at the discretion of member states" (Nilsson et al. 2009: 4456) and the security of supply frame increases national sovereignty concerns over energy (Braun 2009; Nilsson et al. 2009). ENGOs use this frame to argue for more RE in the EU but in reality it is a mis-frame leading to further development of conventional energy sources. Conventional energy sources are central to MS sovereignty because they are embedded in social structure (having been in place for many years) and are typically owned by MS governments in the EU (EDF in France, EDP in Portugal are just two examples). The security of supply frame has further distanced EU MS from EU legislation governing energy (Nilsson et al. 2009). It therefore limits EU's involvement in common RE strategies, for instance GO

trading, which are otherwise potentially beneficial for the RE master frame.

The Coalition for 100% Renewable Energy

The RE coalition should remain concentrated in size because a smaller group, with concentrated membership, is much more efficient when lobbying RE policy. A smaller group can also focus solely on social aspects of RE, rather than large ENGOs lobbying for all environmental legislation; this envelopes the ENGO RE lobby in environmental frames. Large groups run into problems securing power because each additional member will receive a smaller portion of the lobby results. Thus each added member is increasingly more unlikely to act in the interest of the group, or unsure of when and where to act.

Furthermore large groups, particularly ENGOs, lobby on many different causes which sometimes conflate with each other. These two factors affect the lobbying for the majority of ENGOs in the Green-10. "The marginal cost of additional units of the collective good must be shared in exactly the same proportion as the additional benefits. Only if this is done will each member find that his own marginal costs and benefits are [met]" (Olson 1965: 33). This means that a specific RE legislation, for instance the proposed Energy Efficiency Directive (EED), makes up only a fraction of the lobbying for each member of the Green-10. Smaller groups can provide all members with an adequate piece of the pie, enticing members to act with purpose, and making it easier for a member to choose when and where to act.

A coalition with INFORSE, as a concentrated sustainable energy NGO, and another concentrated organization can be very successful because of small membership.

An example of INFORSE already carrying out specific, concentrated, lobby actions is the eco-design legislation where INFORSE regularly consults with the EU to develop more energy efficient products. In this case INFORSE has a specific access-good, as opposed to other ENGOs without this specific energy knowledge, and therefore INFORSE is able to lobby strongly for energy efficient products. All coalition members could have clear-cut responsibilities, specifically allowing members to choose when and where to re-frame, a lobby option unavailable for larger ENGOs. This means, as opposed to Greenpeace or WWF who must remain in an environmental lobby structure, the coalition can represent sectors of society benefiting from 100% RE. That is a shift from the large, environmentally-based lobby to a concentrated, socially-based RE lobby.

The importance of alliances and coalitions is found in research on German wind organizations (Michaelowa 2005). The German wind lobby created alliances among farmers and regional policymakers in order to build a strong lobby voice (ibid). Early alliance formation was a crucial step in order to build a coherent voice and to source local information. The lack of involvement of large banks and corporations, in setting up new wind farms, avoided NIMBY ("not in my backyard") arguments and citizen disapproval (ibid: 195). Citizens were empowered to build and maintain wind farms, benefiting from sourcing their own energy, and were in turn able to feedback knowledge to policy-makers. The German wind lobby successfully created feedback loops (ibid: 197) to exchange important information among the coalition. Feedback loops connect knowledge between local, national, and international actors. This is an integral technique for the successful RE coalition to employ in order to increase awareness, innovation, and social acceptance.

City network organizations in Europe promote city legislation initiatives outside EU policy creating unique and progressive laws ahead of European RE policy. “Unlike hierarchical Europeanization, the emerging “foreign policy” of cities opens up new transnational spaces for local actors” (Kern 2010: 4). The RE coalition could integrate a city network with the impetus to arrive at a 100% RE sourced city. Feedback loops could then be built with the RE coalition and the cities to develop local RE knowledge and support the coalition lobby voice. The idea of para-diplomacy, or local international diplomacy efforts (ibid), can have a profound impact on the power of a RE coalition in Brussels; para-diplomacy, independent of some governmental structure, could be an important step to leapfrog stagnant RE legislation at the EU level (ibid). Instead of awaiting more progressive EU RE legislation, cities could embody 100% RE visions.

There is a strong ENGO RE lobby presence in Brussels called The Green-10.[ix] The Green-10 includes the following members: Worldwide Fund for Nature (WWF), Friends of Earth-Europe (FoE), CAN (Climate Action Network), Greenpeace, and Bird Watch, CEE, European Environmental Bureau, European Federation of Transport and Environment, Health and Environment Alliance, International Friends of Nature. Many researchers agree that the ENGO lobby is weak in the EU ((Markussen and Svendsen 2005; Gullberg 2008; Crombez 2002). Though most of this research indicates lack of resources for their inherent weakness (Gullberg 2008; Crombez 2002), Mancur Olson's group theory more adequately explains inherent weakness in the Green-10 (Markussen and Svendsen 2005), whether lobbying together or individually for a collective benefit. “Though all of the members of the group therefore have a common interest in obtaining this collective benefit, they have no common interest in paying the cost of providing that

collective good" (Olson 1965: 21). Members of the Green-10 all support stronger environmental policies, but at times these policies interfere, and thus framing is quite difficult under these circumstances. For example a majority of the ENGOs in Green-10 may lobby for more wind energy while Birdlife lobbies against some wind energy project because they could kill birds. Greenpeace and WWF were divided over support for nuclear energy and CCS; WWF supported nuclear at one point, while WWF and Greenpeace supported CCS projects on and off. (Olesen 2011)

Therefore the Green-10 cannot always lobby very effectively, which mainly stifles their ability to reframe with planned timing and venue choice. These large ENGOs, in terms of lobbying RE policy, are unable to act coherently on specific RE policy. Meanwhile their collective voice is often dismissed by pivotal policymakers. The voice is both too uniform and too predictable. Meanwhile increased carbon emissions targets do little to increase RE share because of CCS, nuclear, and natural gas.

In contrast a small coalition, for instance INFORSE with another concentrated organization, could act more quickly and efficiently to lobby RE policy and re-frame pivotal language. Each member would be tasked with lobbying RE policy rather than environmental policy. A dynamic, concentrated coalition with "Purely personal or individual interests can be advanced, and usually advanced most efficiently, by individual, unorganized action" (ibid: 7). This individualized action is a crucial resource only available to small groups lobbying for RE policy. Furthermore smaller groups do not experience the free-rider effect. A small coalition will not experience a negative free-rider effect because all its members are in contact with each other, and therefore not "latent" by default. Contrarily a large group is weighed down by free-riders as they automatically

give benefits to latent members. For example many ENGOs in the Green-10 join other collective groups, leading to many other groups such as the Green-10 in the same position (e.g. the Energy Savings Coalition).

Conclusions from The Literature

The literature reviewed informs about framing theory, the power of re-framing, weaknesses found in the ENGO RE lobby, coalition building, and the areas for a potential RE coalition. Framing and re-framing are shown as powerful techniques for a coalition, in particular a coalition with less power than conventional energy lobbies. Gaps in the literature were found in data collected about ENGO framing, and building an RE coalition able to lobby for multiple legislations.

Chapter III: The Project and its Development

Introduction

The project developed while I was working as an intern for the International Network for Sustainable Energy (INFORSE) in Aarhus, Denmark from August through October 2011. During this internship I was responsible for updating policy on the website (inforse.org/europe), representing INFORSE at RE conferences, and networking with ENGOs, policy-makers, and other energy lobbyists. Below is a table showing the RE conferences with main outcomes.

Project Development

The main objectives of the project were to expose weakness in the ENGO RE lobby while locating gaps for a coalition. This required attending conferences throughout the EU as a RE lobbyist (working for INFORSE). The conferences were an important venue to pose questions, interview various actors, and ascertain evidence of gaps in the RE lobby. In addition, the conferences were important to attempt re-frames and question mis-frames hampering more progressive RE policy development in the EU.

Minutes and summaries from the conferences expose gaps in the RE lobby specifically the carbon frame. Summaries also demonstrate the prevalence of the frame. Therefore the summaries and minutes from the project support the thesis by indicating the carbon frame's inhibiting factors for RE policy development while showing areas where an effective RE coalition can enter to promote stronger policy.

Project Description: Conferences

The eight conferences underscore main findings presented in this paper. During all conferences the carbon frame entered into the discussion at least once. Below is a table elaborating on the central themes from each conference, and primary data supporting the arguments in this paper.

Conference	Theme	Stakeholders	Key outcomes and results
INFORSE Hamburg Seminar	Annual INFORSE Member Meeting	INFORSE NGOs from EU (mostly Eastern bloc); Energy companies	MS sovereignty issues; coalition idea put forward; EU Commission focused on grand solutions; local RE knowledge
CAN-Europe EED Lobby Workshop	Gather ENGOs to develop EED lobby strategies	WWF, Greenpeace, FoE, Green MEPs	ENGO lobby disorganized and late; carbon frame central to discussions
Parliament EED Debate #1	Different stakeholders to debate language in the proposed EED	ENGOs, industry groups, electricity providers, MEPs, international media	Carbon frame prevalent; industry uses “save energy” frame; lack of understanding between industry and ENGOs; ENGOs arguing outdated frames
UNRISD: Green Development and Social Dimension	Discuss problems with “green development” with a focus on the social	ENGOs, NGOs, researchers (University, UN, World Bank)	Carbon frame's neo-liberal basis; adverse effects from carbon frame and Kyoto Protocol
ENCI-Low Carbon Stakeholder Forum	Different stakeholders to debate climate roadmap and research scenarios	ENGOs, researchers (France, Germany), EU Commission, Industry Reps, Eurelectric	Commission framing; MS sovereignty issues interfering with roadmap and EED; ENGOs lack progressive frames
ECF Power Perspectives 2030	Different stakeholders to discuss ECF 2030 report (launch)	EU Parliament Members, Commission Members, ENGOs, Media	Industry co-opted carbon frame; natural gas accepted by all stakeholders as necessary for RE development
EED Parliament Debate #2	Different stakeholders to discuss EED role for Energy security	Commission, Industry, ENGOs	More discussions are required; industry uses “energy savings already done by us” frame; MS sovereignty limiting EED potential
EWEA: “30% lower emissions in EU from wind and other RE”	Launch of EWEA report linking wind energy to lower EU emissions	General public, EU Commissioners, EWEA staff	Climate Commissioner apparently unaware of the dangers of the carbon frame; my re-frame misunderstood

Website Articles and Press Releases

Website articles address EU RE policy, predominantly related to the proposed Energy Efficiency Directive (EED), which I lobbied for on different occasions. Website articles also explain UN processes leading up to the Rio +20 Conference of Parties (COP-May 2012). The former articulates constraints keeping the EED from entering EU legislation, and subsequent lobby tactics aimed at diluting the Directive's language. This shows where a RE coalition is needed. The latter article explains the UN conference's strict adherence to the carbon frame, and researcher's inability to argue outside the carbon frame.

The press releases were descriptions of the conferences distributed to INFORSE members throughout Europe. The press releases are the beginning of a re-frame process, creating feedback loops between INFORSE members. The press releases develop an INFORSE opinion that eventually forms a lobby voice at the EU level.

Interviews and Questions during Conferences

Interviews were conducted during RE conference breaks. This is important because interviews were off-record and therefore many actors reveal positions more clearly. During these interviews I promoted 100% renewable energy, supported by INFORSE 100% energy scenarios for Europe (Appendix II), and attempted to gauge to what degree the carbon frame entered.

I asked questions during and after each conference. Answers to these questions support the arguments in this thesis. In addition, after posing questions during the conference, other actors approached me to discuss INFORSE scenarios further. This

resulted in an articulated lobby voice, coherent with INFORSE positions, with a focus on local sustainable energy visions.

The Project

In the appendix the project is organized following the order data was collected. Appendix (I) lists all important Directives related to the RE lobby. Appendix (II) lists INFORSE renewable energy scenarios for Europe; part of my work was to compile this information and form a lobby personal lobby position. Appendix (III) lists conference summaries, giving a rough overview of opinions and debates at conferences. The website articles, also available on the INFORSE website (inforse.org/europe), fall under Appendix (IV). Appendix (V) lists conference press releases, which were short articles distributed to INFORSE members in order to form a more coherent policy voice.

Appendix I: EU Directives related to the project

Appendix II: INFORSE Maps/Scenarios/Data

Appendix III: Conference Summaries

Appendix IV: Website Articles

Appendix V: Press Releases

Chapter IV: Data and Discussion of Findings

Introduction

The central research question addresses the carbon frame's dominant role in RE policies in the EU and how this impedes on the effectives of the ENGO RE lobby. The carbon frame holds an explicit monopoly over RE policy language, but why? Why had the ENGO lobby not realized arguing within the carbon frame continued to stifle lobby efforts? Subsidiary questions investigate reasons for the carbon frame's restriction, why the ENGO lobby rarely attempts to reframe carbon, and in what ways a different coalition could carry out these tasks. Why did RE lobbyists, working for ENGOs, not attempt to reframe the carbon frame? What prevents ENGOs from re-framing key RE language? Under what criteria should the coalition form?

The findings indicate the carbon frame has limited the success of RE legislation and related advocacy for intelligent implementation of renewable energy legislation in the EU. It has severely inhibited the ENGOs lobby. While other frames aside from carbon have limited the RE lobby as well, these are out of the scope of this paper. However, some re-frames are suggested in the recommendations section in Chapter V.

Data

The carbon frame has prevented more progressive RE policy in the EU by invading RE policy debates. Renewable energy emits virtually zero emissions; it has merely a derived relation to carbon emissions. There is no need to cloud over RE legislation with the carbon frame because it distorts and confuses pivotal actors from decision-making and innovation.

Adhering to the carbon frame, ENGO RE lobbyists fail to confine RE into a social, local, citizen-based issue. Instead, the carbon frame is focused on the end result of using fossil and uranium fuels, rather than the systemic problem of the energy infrastructure. A secondary ENGO lobby weakness is their marriage to environmental frames, evidenced by their satisfaction with the carbon frame regardless of its blatantly negative consequences for RE legislation. These findings point to the need for an entirely new lobby coalition in Brussels to address pivotal policy frames such as carbon. This coalition will focus on local sustainable energy solutions throughout Europe, while at the same time maintaining an intelligent and effective lobby voice at the EU level.

Five key points are pulled from the data to support the overall thesis and guide subsequent objectives: (1) the carbon frame's prevalence in the RE lobby; (2) gaps in the ENGO lobby; (3) MS sovereignty issues; (4) participant observation re-frames and results; (5) criteria for building an effective RE coalition.

Key Findings and Discussion

1. **Data demonstrating the prevalence of the carbon frame**

The carbon emissions debate, ancillary agreements, and climate mitigation strategies are found to overshadow and dominate all RE debates, limiting the RE lobby, related policies and implementations. The carbon frame significantly limits actors most concerned with progressive, intelligent and practical RE policy implementation in the EU. Meanwhile INFORSE RE scenarios show clear transitions to RE are possible, and as an added bonus harmful emissions would decline. These scenarios logically resolve integral energy problems at source, and effectively eliminate the carbon debate. Sustainable energy emits nearly zero carbon, or any other green-house-gases (GHGs). Successful development of RE legislation, without the intrusion of the carbon frame, is required to solve the multiple socio-economic and political-economic crises prevailing in the EU today. However the majority of actors continue to debate using the carbon frame.

During the UNRISD conference in Geneva, researchers demonstrated the carbon frame's destructiveness with direct examples from the Kyoto Protocol.[x] Researchers suggested the carbon price cannot be generalized, and carbon initiatives need a decisive break with neo-liberal rhetoric if they are to succeed. While the researchers criticized the many negative consequences stemming from the carbon frame, they continued to use it as a basis for discussions. It was shown how the current carbon trading scheme served neo-liberal thinking and the "appropriation of created rights by the most powerful economic agents" (van Griethuysen 2011: 13). Despite arguments pointing towards the failure of the carbon frame, researchers and activists at the UNRISD conference continued to use the carbon frame for the platform of all debates during the conference.

In the CAN-Europe EED Workshop the carbon frame was central to the discussion, entering in both Co-generation (CHP)[xi] and the EU-ETS debates. Apparently energy efficiency will drive down carbon emissions, and thus undermine the credibility of ETS. Perhaps this is true, but it is alarming that carbon emissions invaded the discussion regarding energy efficiency. It was clear here that the carbon frame causes unwarranted confusion, proven by its potential destruction of the proposed EED, and the need to readjust the price of carbon every several years (thus ETS is anything but a market-based instrument). If the price of carbon needed adjustment because of the energy efficiency legislation, and also effectively clouded over the discussion about the legislation, the carbon frame is certainly impeding on logical discussions of the directive at stake.

Co-generation (CHP), or the generation of heat and power from a power-plant, is covered under the proposed EED and was discussed briefly during this workshop. ENGO actors did not foresee a problem with fossil power-plants using CHP to gain privileged access to the electricity grid (an article under the proposed EED), which should be reserved only for RE. Instead the carbon frame entered by defining the problem as CHP interfering with the ETS. Meanwhile, allowing CHP plants to garner privileged access clearly extends the lifetime of fossil fuel power-plants. A secondary issue is interference with the ETS. Again, the carbon frame blurred judgment and distorted the problem by decoupling the end result, emissions, from the problematic cause, fossil fuel energy.

At the two European Parliament debates on the proposed EED, (October 4th, November 7th), the carbon frame was widely used by policymakers from the Parliament and the Commission. Though not the subject of the debate, (the debates were mostly about energy efficiency), the policymakers argued in favor of the EED mainly to decrease

carbon emissions.[xii] The reasoning that energy efficiency leads to decreases in carbon emissions was uniformly accepted by all stakeholders at these two debates. This is interesting because emissions increased during the past several decades while the majority of the world became increasingly more energy efficient.

There are two problems with the implicit assumption that energy efficiency leads to decreases in carbon emissions. The first is carbon emissions are not a necessary prerequisite for increased energy efficiency. The two aren't necessarily contingent upon each other meaning that successful implementation of energy efficiency measures need not depend on the end result, emissions. The second problem with this assumption, which also debunks the former, is that energy efficiency does not usually correlate to saving energy. While saving energy can easily correlate to saving money, and perhaps also decreasing emissions, energy efficiency does not necessarily equate to saving money or decreasing emissions. This happens because as energy efficiency increases, energy use usually increases in direct proportion. Therefore employing the carbon frame in reference to the EED during the EED debates is a mis-frame, and a mis-aligned frame. The mis-frame implies energy efficiency will decrease carbon emissions; it is misaligned with the carbon frame. Therefore the mis-frame is completely misleading and inhibits intelligent RE policy and ENGO lobby efforts.

The European Climate Foundation conference offered clear proof that industry co-opted the carbon frame and has continued to discreetly use it against renewable energy lobby initiatives.[xiii] During this conference natural gas was promoted as the solution to carbon emissions and also required as low-carbon energy to backup RE. The main arguments put forward at the conference were for significant growth in natural gas in

Europe and the need to construct an EU “super-grid” to support gas infrastructure. It was also argued natural gas was required to support RE because the latter are intermittent. The framing of natural gas as a required back-up for RE is also based on the carbon frame: it is assumed the life cycle of natural gas energy doesn’t emit much carbon. However natural gas is not a low-carbon technology if the entire life cycle of the energy production is accounted for. A super-grid built throughout Europe will ensure natural gases’ dominance for at least thirty years. Meanwhile in thirty years RE will be available to power 100% of society's energy needs based on INFORSE scenarios.

2. The ENGO Lobby

Data examining the ENGO lobby process is extracted from the CAN-Europe Workshop. Additionally, this researcher is a part of a Google group for environmental groups lobbying the EED, with weekly updates and correspondences. The Google group involves many ENGOs working on the EED; it is an attempt to form a coherent ENGO RE lobby voice.

The CAN workshop data show ENGO lobby strategies with the aim to integrate one coherent voice and to avoid redundant lobbying.[xiv] Lobby positions were formed during the workshop, and ENGO lobbyists were meant to bring these positions back to their respective countries. In turn, the Google group was designed to open up ENGO dialogue to discuss the progression of the EED, and to limit overlapping lobby strategies.

During the workshop, different ENGO actors expressed discontent with the proposed EED, and related the problems in correlation to their respective countries or regions. Some of the language of the proposed EED was vague and lacked impetus for

saving energy. Therefore ENGOs underscored the fact that the EED could directly save EU households one thousand euro per annum—thus an economic money-saving frame was created. The economic frame that resulted from this workshop was quite positive; however the carbon frame continued to dominate central debates.

The Google group succeeded in developing strategies at the local and national levels, as well as new directions for RE lobbying in Brussels. This was a positive step for the integration of a stronger policy voice, however it only recently developed. One essential problem the group faces is lack of incentives for lobbyists to make targeted actions. This is evidence of the free-rider effect and may have potentially negative consequences for a large ENGO lobby group. Some ENGO actors carry out many tasks in the Google group, while others reap the benefits including changes to the EED without taking direct actions themselves; similarly, redundant lobby strategies continue to prevail because explicit tasks are not assigned to individual actors.

3. Member State Sovereignty Issues

Member State sovereignty issues unpredictably alter the lobby process, re-framing initiatives, and language in EU Directives. Therefore sovereignty issues in the data must be accounted for. Data indicating these issues is sourced from the Hamburg Seminar and the second EU Parliament debate. In the former MS sovereignty issue are cited as the reason for reluctance to connect RE between MS (similar to what Guarantees of Origin legislation proposed). The latter explicitly showed EU Commission reluctance to enforce binding targets for the proposed EED due to fear of impeding on MS sovereignty (precisely indicated by an EU Commission representative).

The hidden obstacle[xv] continuing to restrain successful implementation of RE in Europe is MS reluctance to connect (RE) via a "smart grid." (Fouquet 2011) During the Hamburg seminar this point was decoupled from the super-grid approach, which largely relies on massive infrastructure projects based largely on natural gas.[xvi] The smart grid is the idea that RE requires increasingly more flexibility in the grid system; if can open up energy exchanges allowing citizens to become producers and consumers of energy. A smart grid can connect RE between adjacent countries, while a super grid embodies the idea of sourcing massive solar energy from Northern Africa, massive offshore wind energy from the North Sea, all backed up by natural gas. The smart grid will certainly help RE throughout Europe, while the super grid will unnecessarily extend fossil fuel lifetimes. The latter is supported by the carbon frame. Though MS in the EU are increasingly reluctant to relinquish sovereignty over energy the latter is increasingly more likely to prevail; meanwhile the smart grid, without a dominant carbon frame to propel the argument for it like the super grid has, continues to receive little support from MS.

MS sovereignty issues even affect how the Commission created and proposed the new EED. During the second Parliament debate, a Commission representative stated that, because the Commission wanted the EED to turn out successful, binding targets were not introduced into the legislation to avoid rejection by MS. If binding targets were required, (e.g. to require public building refurbishment rate at three-percent annually), MS would most likely reject the EED because it imposes on energy sovereignty. It is challenging to re-frame language in this Directive to evade MS rejections. The Commission has framed the Directive to give MS maximum flexibility implementing energy efficiency requirements.

4. Participant re-frames and Results

There was a general miscalculation of the importance of dominant frames, such as the carbon frame, among RE lobbyists, advocates and organizations. During some conferences, I attempted carbon reframes. Carbon reframes were tested against ENGOs and industry, yielding different results. When ENGO lobbyists used frames, they focused either on single Directive, highly specific re-frames (as opposed to issue re-frames like carbon), reframed too late to yield any substantial effect, (EED reframe attempts), or failed to bring the reframe into the forefront of policy debates.

Meanwhile industry lobbyists, along with Commission representatives, used framing frequently and with purpose. During several key debates, the Commission re-framed language unbeknownst to ENGOs (both Parliament debates, INFORSE stakeholder seminar). For example, Eurelectric lobbyists framed energy efficiency as something that industry already did to save money, and by doing this they limited emissions. The ENGO lobby had a muted response to this economic, and carbon-based, frame which exposed an ENGO inability to reframe or recognize mis-frames. This showed that while industry and Commission lobbyists actively employ RE frames, ENGOs remained highly disadvantaged by not consistently employing frames. This severely constrains ENGO RE lobby activity and, unless realized by a strong and concentrated RE coalition, progressive future RE policy will continue to digress from core energy issues.

A major attempt to re-frame carbon by this researcher occurred at the CAN-Europe EED workshop.[xvii] There were weak attempts by other actors to re-frame language

connected with the EED at the workshop, but no consensus that central issue frames, for instance carbon, threatened the effectiveness and legitimacy of the RE lobby goals. The attempt to re-frame, or frame away from the carbon frame, received muted response. This is a major finding because it indicates that the carbon frame is completely embedded in ENGO language blocking their ability to carry out any significant reframes.

During the UNRISD conference this researcher called on participants to re-frame the carbon frame.[xviii] Even though a number of presentations addressed the problem of the carbon frame, the response to the re-frame was muted, though some positive discussions followed the main event. I suggested the carbon frame required an immediate reframe because it had been co-opted by industrial groups and powerful economic powers. Data supporting this claim was supported by a majority of the research presentations, yet the carbon frame evaded any blame for misguided debates regarding RE.

The final re-frame I attempted at the EWEA Conference. This conference subscribed to the reasoning that higher emissions targets (adjusted from a 20 decrease of carbon to a 30% decrease) automatically led to more share of RE in the EU. This line of reasoning was reiterated by the Climate Commissioner several times. I asked the EU Climate Commissioner why higher emissions targets were assumed to drive more RE implementation. I questioned this reasoning because it was entirely based in the carbon frame; the ETS has shown increased emission targets can just as easily drive investment into natural gas, nuclear energy, or CCS rather than RE or energy efficiency. The Commissioner dodged the question entirely, answering only that binding targets helped investors and MS make plans for the future. This exchange proved the carbon frame's continued dominance over RE language, especially within top political circles. All actors

at the conference supported the increased emission target goal without questioning the carbon frame.

5. The Coalition for Renewable-energy and Energy-efficiency

The data failed to uncover evidence of a lobby coalition with the ability to successfully reframe key policy language. A coalition, by representing a variety of socials realms, is important because it can build frames applicable to different sectors of society. Though EGNO lobby efforts were ambitious, they were largely too divergent and disorganized to reap measurable success in the final energy efficiency directive text. Likewise, master frames, (for example, linking energy efficiency and stronger economy), were not built correctly or efficiently.

The frame linking economics with energy efficiency was insufficient because it was directed at energy providers, rather than consumers. Frames regarding energy savings and monetary savings for the consumer will likely not yield positive frame results from energy providers. In short, the ENGO lobby for the EED, represented mainly by members of the Green-10, did not effectively create, disseminate, and popularize reframes. Likewise they didn't apply frames to the right actors. This was partly due to venue choice and frame construction, and also a result of disagreements on frame choice among the many large Green-10 organizations.

Therefore the Green-10 was unable to build and enforce new frames to support a strong Directive—particularly frames focused on economic gains across the board for energy efficiency measure. Such a reframe would have to rely on local energy solutions, supported by dynamic energy companies. This is a primary pitfall because energy

efficiency, a main tenet of this Directive, must come from the local; energy efficiency is primarily achieved where end-use energy occurs. It is simply impossible to imagine how the EU, as a relatively small institution, could possibly create, implement and monitor such a broad energy efficiency mandate without support from local solutions. Frames are required to accurately convey language to citizens, and also in debates with energy companies, in turn empowering the former to develop local sustainable energy solutions and the latter to develop new business prospects supplying vital knowledge and resources.

The need for a coalition is underscored in data from the first EED Parliament debate which revealed how little opposing lobbyists appear to know about each other.[xix] A coalition could string these gaps together, limiting ignorance and miscommunication between all actors. Whereas industry representatives (Eurelectric) faulted ENGOs for not disseminating energy efficiency information to citizens, ENGOs used outdated frames arguing that the electricity industry failed to diversify its energy supply (with more RE). It turns out that electricity providers have substantially more information about citizens regarding energy use, which is vital knowledge for an ENGO to disseminate to consumers; electricity suppliers had diversified their energy supplies already because they were offered lucrative government incentives for RE. A coalition can re-frame correctly to cover multiple sectors, and expedite agreements among stakeholders by representing different societal sectors. This has the potential, in some cases, to supersede governmental decision-making. In this case a coalition could liaise between ENGOs and energy providers potentially creating democratic energy decisions.

Extensive discussions with Gunnar Boye Olesen led to the conclusion that

INFORSE needs to form such a coalition.[xx] It is a prime candidate because it already embodies several key attributes identified in this thesis as necessary for a successful RE coalition. These include extensive knowledge of local, sustainable energy issues coupled with a neutral lobby voice because it isn't necessarily obliged to represent its members at the EU level. Mr. Olesen has already begun the process of searching for a coalition partner representing a different societal sector than INFORSE, with different visions and motives.

Discussion

The data show constraints to policy-making, actors and their resources, and weaknesses in the ENGO RE lobby. This is evident by inconsistent and stratified ENGO lobby activities for the proposed EED. Constraints are mostly due to the structure of the ENGO lobby which limits reframe abilities. Framing is the greatest resource for a RE lobby; framing is not used to its full potential by the present RE lobby, specifically evident in the cursory frame discussion during the CAN-workshop. Most importantly the maligned, and misaligned, carbon frame, if not understood and re-framed by RE lobbies, significantly limits progression in RE policy as power remains in the most pivotal economic actors. The carbon frame forms a type of income security, by strong actors owning the rights to emit carbon, without achieving the desired effect of decreasing emissions or directly increasing RE share.

The five key findings support the two central arguments of this paper: the carbon frame limits the RE lobby and hence progressive RE policy; and a coalition formed with specific goals to reframe key language can fill the RE lobby gap. A concentrated RE

coalition, integrating members from different societal sectors, has the greatest potential to influence European renewable energy and energy efficiency legislation by adjusting frames quickly and with purpose. This coalition could develop local sustainable solutions outside the scope of EU or national governance structure, by acting as a liaison between industry, citizens, investors, and other important actors. Communication and knowledge gaps could be filled with this coalition by representing different societal sectors while maintaining a goal to promote 100% RE.

Conclusive Remarks on Key Findings

The danger of the carbon frame, the potential power inherent in re-framing, and the lack of an effective coalition highlight areas the RE lobby needs to address. In general, these findings point to the inefficacy of global climate mitigation strategies, including the COP meetings, and suggest reasons for slow progress on international agreements. In addition, the findings indicate an agreement on emissions, if based on neo-economic theories (e.g. cap and trade, carbon trading etc.) most likely will not lead to more RE. While RE attacks the problem at its source, trading carbon among heavy polluting industries only opens up a string of loopholes, or lock-ins. This will potentially ensure fossil fuel and nuclear power dominance for many decades to come. If the RE lobby continues to lobby within the carbon frame, their efforts will render below par policy results.

The findings show ENGOs weaknesses and general inability to deliver on progressive RE policy in the EU. This is a major problem because without radical, yet decisive and intelligent policy implementations, misleading legislation will prevail. A

prime example of such unwanted legislation, from the RE lobby perspective, is the ETS though many ENGOs continue to support it. There are a few fundamental constraints to the ENGO lobby. These include a stratified lobby strategy, without the ability to frame and reframe very well, and also lacking the ability to choose reframe venues or apply reframes to the correct actors.

All findings point to the need for a highly dynamic, concentrated, and cross-sectoral lobby coalition to decisively drive progressive RE legislation. ENGOs within the Green-10 are unable to fulfill some of these criteria mainly because, due to their large organizational structure and infrequent meetings, they cannot carry out specific RE frame tasks very well. The main finding is that a RE coalition with several distinctly different coalition partners can carry out reframes because it will create and disseminate frames more efficiently. This coalition should focus on local solutions, while always remaining acutely aware that EU policy is expansive and necessary to lobby intelligently. Therefore the coalition can reframe to suit social concerns, while also tying in economic and political issues, and deliver finely tuned frames to different actors. This is possible by maintaining feedback loops from the local to the national and international policy levels. Feedback loops can help create and disseminate powerful RE frames.

Chapter V: Conclusions and Recommendations

> The focus on carbon and emissions trading reduces society to only the climate problems […] When things are only focused on the climate change they come to the wrong methods […] the reasons to shifting to renewable energy are far more beyond the climate crisis. [The] emissions-trading concept […] is purely technocracy. […] what we need is the ability for society to organize their energy change, not wait for [a UN agreement]. (Scheer 2010)

Introduction

The case study presented in this paper, ENGO lobbying RE policy in the EU, supported by empirical research lobbying as an ENGO actor, exposes avenues for lobbying RE policy. Through a better understanding of lobbying and framing in the RE lobby, weaknesses are exposed and gaps opened for a new coalition. The lack of re-framing of the carbon frame is a primary gap in the RE lobby. The carbon frame ignores social phenomena, does not attack the problem at source, and adds to patchwork decision-making. The RE lobby has limited power while using the carbon frame because it remains confined to the frame's parameters. This evidence is supported by empirical findings, while other support for this claim is found in the literature reviewed.

Three key findings can be drawn from this research: the constraints of the carbon frame, the ENGO lobby does not adequately reframe, and there is potential for a dynamic coalition to carry out this reframe. Using inductive reasoning the key findings lead to other auxiliary conclusions. If a dynamic RE coalition is built, it will have the power to re-frame key language; most importantly, the carbon frame. This will unlock some of the power which continues unabated by way of the carbon frame. The coalition will then have the ability to reconstruct pivotal frames, and building frames easily mutable when applied to various actors. This will happen by steering away from the carbon frame to

allow RE to enter the debate as a sustainable, local, democratic human right. Or, for instance, the coalition could support future legislation similar to Guarantees of Origin, which refocus the debate to the origin of energy production. Sound economic frames must be reinforced by positive social changes, under separate and distinct auspices, when lobbying venues change from lobbying with policy-makers, industry lobbyists, citizens or other actors. The reframe will need to draw ENGO frames away from the environmental reasoning and back into the social realm; that is, from carbon frame which is dominated by certain key players, into the social frame where the majority of energy is used.

The Carbon Frame

The findings of this research indicate the carbon frame has severely impeded the success of the RE lobby in the EU. The frame has become intricately woven into each debate related to renewable energy and energy efficiency, even when debates have only slight association to carbon emissions. The logic in renewable energy is that it solves many of the central energetic problems at source.

Other research has shown how industry co-opted the carbon frame in order to create lucrative investment opportunities via mitigation instruments (Markussen and Svendsen 2005). This means that industry lobbyists crafted the ETS legislation for their benefit, without capacity to actually limit carbon emissions. My research has shown that ENGOs continue to argue within the ETS frame without realizing that industry lobbyists had largely written the ETS legislation. Thus ENGO lobbyists appear to underestimate the perils of the carbon frame.

The carbon frame is the most destructive idea for climate change mitigation

because it systematically dislocates causes and effects. Limiting carbon emissions concentrates on only a section of the effects, emissions, whilst the cause, fossil and uranium energy, are blurred over. Other effects are global climate change, mass migrations due to changing landscapes and agriculture, loss of species diversity, rising sea levels, etc. The causes are explicitly due to the misappropriation and use of energy, coming predominantly from conventional energy sources, with final waste expelled into the atmosphere. This endogenous, systemic malfunction disrupts the earth because it dramatically increases entropy. By placing the blame solely on carbon, a majority of the focus is misdirected to only a fraction of the negative causes.

The strategy is to move towards a 100% renewable-energy society in the EU, in the USA and around the world. This should be done as rapidly as possible, while consistently taking measures to curtail shortsighted strategies. The carbon frame is completely isolated from this 100% renewable-energy strategy. Giving carbon a prices is a weak attempt to patch derivations of the main cause which is the way energy is harnessed and used. A price on carbon gives incentives to “de-manufacture” it (e.g. CCS: to earn carbon credits). In addition, focusing only on carbon completely ignores other, perhaps much more dangerous, emissions such as nitrogen and methane.

This research uncovers the fact that ENGOs haven’t understood the detrimental effects of the carbon frame. This concurs with other research indicating that the master frame will fall under control of the most experienced and dominant lobbyists (Nilsson et al. 2009). In the EU RE lobby, the most dominant lobbyists are industry mostly represented by Eurelectric (EU electricity suppliers alliance). My findings show that this group continually uses the carbon frame to sideline RE by driving the main discussion

into the subject of carbon emissions, rather than energy efficiency (EED Parliament Debates). At the same time ENGO lobbyists support this frame, allowing Eurelectric to continue mis-framing, separating causes from effects.

The carbon frame also severs public understanding and public participation from the renewable-energy strategy because they have limited access to carbon trading. This distances ordinary citizens from the renewable-energy strategy, which is completely the opposite of what is required to implement and monitor RE. A 100% renewable-energy society can only exist if local solutions are understood and implemented with results disseminated between other local actors around the world.

Re-framing

The findings show that re-framing is not often attempted by the ENGO lobby. Meanwhile it is often employed by the EU Commission and industry lobbyists. Because re-frames and mis-frames are not correctly understood by the ENGO lobby, other lobbyists exert more influence. This is, for instance, evident in the mis-framed carbon frame. The carbon frame is a master mis-frame (Mayer et al. 2010), from the RE perspective, because it keeps the focus on emissions rather than energy production. By re-framing this master mis-frame, the RE lobby can gain more influence over EU energy policy.

The carbon frame precludes participation in the RE debate because society is misinformed. Natural gas thrives under this frame because it is seen as a low carbon energy option. Additionally the carbon footprint line of reasoning, which raises public awareness, is nonetheless directed at the wrong issue. Meanwhile citizens are where most

implementation of RE will come from.

To re-frame the renewable energy language is pertinent for the RE lobby. It is necessary to re-frame to ensure that society is both better informed and more encouraged to take individual action and find local solutions. The public must know a 100% renewable-energy-sourced society is possible. Through intelligent re-frames the public can reenter the energy debate. Otherwise, the most powerful companies will simply continue to manage the frames and keep the public safely out of the real debate in order to continue profiting from increasing entropic processes in our system.

The Coalition for Renewable Energy

The Coalition carries out three main tasks, each of which adds to its inherent power. First, it re-frames key RE language and disseminates frames to all its connections at local levels. Meanwhile, it maintains these frames at the international levels (EU, UN, etc.). Within this process the coalition creates dynamic feedback loops (Michaelowa 2005) to sustain or adjust reframes when necessary. Through feedback loops, top-down and bottom-up knowledge circuits can be created. Lastly, the coalition lobbies using a coherent, singular, intelligent voice on the highest political levels. Its lobby voice is strong because it has created and maintained re-frames, built strong ties among society, while also building trust within decision-makers, business communities, and industry (Michaelowa 2005).

The findings demonstrate a need for a lobby coalition in Brussels to more adequately influence RE policy because the current ENGO lobby is unable to adjust powerful frames. This claim is supported by other research suggesting ENGOs have

fewer resources than industry and the former lobby is thus weaker (Gullberg 2008). I find ENGOs weakness is due mostly to their large size, as opposed to strictly resources. For example, the Green-10 meets infrequently to discuss the proposed EED, but cannot build reframes during these brief discussions. Their large size limits their frame organization, and therefore constrains their overall lobby efforts. This conclusion concurs with group theory research (Olson 1965). At other times the ENGO lobby is found to re-frame too late, and not understand when a frame has already been re-framed.

Presently in the EU no RE lobby organization is capable of addressing the re-framing required. Reframing of the carbon frame is required. Subsidiary frames from carbon also need to be adjusted. Key policy-makers, industry lobbyists, and citizens will need finely tuned reframes to drive effective RE policy. My findings indicate that INFORSE along with a civil society organization (such as cities for 100% RE) could make a strong coalition. INFORSE and this group could re-frame very effectively, and promote sustainable energy solutions from below. This finding is supported by other research showing the importance of cities for influencing climate policy (Kern 2010). Without such a dynamic RE coalition there is a great threat that future RE policy in the EU will continue to inch along haphazardly, with stratified decision-making and implementation. This diminishes citizen and investor confidence in RE.

The Coalition for Renewable Energy will source power from below, by re-framing to show the possibility for a 100% RE-based society. The Coalition will source power from knowledge of local sustainable energy opportunities and solutions, rather than sourcing power from membership, economic standing or political leverage. It will be categorically different from members of the Green-10 because it will solely focus lobby

efforts on renewable energy. With INFORSE, knowledge from below can be sourced without increased membership because it already has access to local sustainable energy solutions. However, it creates political leverage through having such a dynamic understanding of localities, including local sustainable energy successes and failure. Meanwhile, a cities for 100% RE organization, for example, could push through legislation at local levels, driving change from below.

Policymakers are keen to source knowledge from a strong coalition with local sustainable energy knowledge. Evidence of this access good is INFORSE's knowledge of energy efficient products, where policy-makers constantly source INFORSE lobby information to write new legislations. Henceforth, policies will be built taking into account all local successes and failures and, in turn, it will be easier to implement and monitor them. This coalition can create powerful access goods (Crombez 2001) to offer policymakers, in exchange for more intelligent RE policy. In conjunction with these access goods, this coalition can create and maintain powerful re-frames because it will have constant contact with EU Institutions and pivotal actors, both internationally and locally. Subsequently, it can monitor RE implementations to create further access goods and re-frames. Re-frames can be disseminated quickly and efficiently through the coalition's network.

Recommendations

During this research many mis-frames were noted and re-frames were developed. The RE-framing, in conjunction with the development of CREEE (Coalition for Renewable-energy and Energy-efficiency) are two outgrowths of this project. CREEE was a side project to develop a Coalition in Brussels and Washington to lobby RE on the highest political level. The central purpose of CREEE is to re-frame language and build credibility by connecting pivotal RE lobby actors in both the US and the EU. By connecting these lobby voices, the potential to develop entirely new master frames, such as carbon, is possible for CREEE. In this way influence over RE policy in two major parts of the policy world, the US and the EU, can be accomplished.

Below are listed many of the current frames and suggestions for re-frames. Some are not direct re-framed words, but instead re-framed ideas. This is a large part of the RE lobby process because slowly one must convince counterparts about the illogic of both mis-frames and antiquated ideas about RE. Each reframe must morph to agree with the actor they are applied to.

Re-frames

Fighting Carbon Emissions (or Climate Change) to Embracing Energy Adaptation

It is simply illogical to “fight” climate change because there is no battle to win against the earth and ecosystem. To embrace and adapt leads to more focus on the sources of energy, adaptation to local sustainable energy systems for example, as opposed to fighting the carbon in the atmosphere.

Renewable Energy (and Energy Efficiency) to Intelligent Energy (or post-modern energy)

Renewable energy is intelligent because it solves several issues by replacing one central problem. While many benefits of renewable energy cannot be denied, there certainly are drawbacks including massive offshore wind power-plants built under the same logic as massive coal power-plants (centralized, government and taxpayer financed, but private companies gain lucrative profits by co-financing). Therefore intelligent renewable energy policy empowers local solutions by opening up the energy grid, for example, to allow any private citizen to sell excess energy from RE.

Renewable Energy subsidies to Decentralized energy tax

Renewable energies, as opposed to conventional energies, require substantial capital investment. Meanwhile renewable energies, as opposed to conventional energies, require very little operating investment. Therefore a shift in financing is highly important for the rapid development of RE, but it must be seen as required and leading to more individual rights and freedoms, which it is. As a side note, Feed-in-Tariffs (guaranteed minimum price for RE to encourage people to source energy from RE), largely considered by public and media to be subsidies, were actually ruled not subsidies by the European Court of Justice. This must be made clear because in contrast fossil fuels (and nuclear) receive blatant subsidies directed at operational costs (which means lining the pockets of owners while not directly benefiting any individuals in society).

Renewable Energy to Thrivable[xxi] Energy

Perhaps renewable energy, and also sustainable energy, doesn't have a very positive ring. The idea of thrivable energy is a bit more enticing, suggesting that this kind of energy is not simply to sustain human society but to allow it to thrive. If a majority of citizens believe in sustainable energy, and work to find local solutions, it will indeed lead to a thriving human population.

Fostering Innovation to Promoting Feedback Loops

The most direct way to increase RE share in the EU is to allow electric grid access. The example is Danish Wind Energy, in comparison with US Wind Energy. While Denmark currently has the most wind energy in the world (as a percentage of overall energy consumption), and also the largest wind energy companies (Vestas, Dong Energy), the US has neither although substantial investment was procured in the US to stimulate wind energy innovation. While the former opened up the electricity grid to allow private owners to sell excess wind energy and thus create innovative, local solutions, the latter pumped billions of dollars into centralized, publicly controlled research centers only focused on breakthrough innovations. Innovation is usually not in technology, but social ideas. Therefore by fostering social connections, in the form of dynamic feedback loops and opening of grids, governments can cheaply and easily foster innovation.

Energy Dependence to Energy Sovereignty

Local sustainable energy solutions lead to true democracies. As Hermann Scheer pointed out, how can any of today's democracies be considered true democracies when a

majority of their energy comes from other sovereign nations, and these other nations are typically anything but democratic? If citizens understand energy sovereignty is a basic human right, and achievable in their lifetimes, this realization immediately opens up a plethora of new possibilities.

Energy Efficiency to Energy Luxury

Energy efficiency is understood as a frugal option to save money but that is not the case. Energy efficiency is actually luxurious because all parts of the building are the same temperature, as opposed to a building that is not EE where parts of the building are colder than other parts. If EE is understood as luxurious, which it is, then more citizens will want to change in that direction without having government to impose requirements on housing renovations (EED) or limit consumer choice on products (Eco-Design)

Final Conclusions

The renewable energy debate has shifted only to a carbon debate, demonstrated by the prevailing use of the carbon frame. This has severely impeded the RE lobby process in the EU. The ENGO lobby is disadvantaged lobbying for RE because it remains entrenched in the carbon frame, its size limits its power, and its focus remains on the environmental frames. The carbon frame plays directly into these weaknesses, especially the focus on environmental dilemmas, because it appears that a limit on carbon emissions is a win for the ENGO lobby, while many of the findings in this research indicate that it is really a loss.

This debate needs to shift back to focus on social development of sustainable energy. Only then can other positive RE re-frames develop. An intelligent and well orientated RE coalition, with the criteria put forward in this paper, has the potential to carry out this task. By empowering local solutions, energy innovation can thrive. With a majority of the public behind intelligent and democratic energy decisions the RE lobby can garner more influence over RE policy.

REFERENCES

Braun, Jan F. "Multiple Sources of Pressure for Change: The Barroso Commission and Energy Policy for an Enlarged EU." *Journal of Contemporary European Reach* 5.3 (2009): 428-51. *Google Scholar*. Web. 22 Aug. 2011.

Crombez, C. "Information, Lobbying and the Legislative Process in the European Union." *European Union Politics* 3.1 (2002): 7-32. Sage Publications, 7 Mar. 2002. Web. 3 Mar. 2011.

Fischer, Frank, John Forester, Martin Rein, and Donald Schon. *The Argumentative Turn in Policy Analysis and Planning*. Durham, NC: Duke UP, 1993. *Google Books*. Web. 22 Oct. 2011.

Goffman, Ervin, Charles C. Lemert, and Ann Branaman. *The Goffman Reader*. Cambridge, MA: Blackwell, 1997. Print.

Greenwood, Justin. *Interest Representation in the European Union*. Houndmills, Basingstoke, Hampshire [England: Palgrave Macmillan, 2007. Print.

Gullberg, Anne T. "Rational Lobbying and EU Climate Policy." *International Environmental Agreements* 8 (2008): 161-78. Springer Science and Business, 13 Mar. 2008. Web. 2011.

International Network for Sustainable Energy. Web. 2011. <Inforse.org>.

Kohler-Koch, Beate. *Linking EU and National Governance*. Oxford: Oxford UP, 2003. *Google Books*. Web. 11 Oct. 2011.

Markussen, Peter, and Gert Tinggaard Svendsen. "Industry Lobbying and the Political

Economy of GHG Trade in the European Union." *Energy Policy* 33.2 (2005): 245-55. *Science Direct*. Web. 12 May 2011.

Mayer, Brian, Phil Brown, and Rachel Morello-Frosch. "Labor-Environmental Coalition Formation: Framing and the Right to Know1." *Sociological Forum* 25.4 (2010): 746-68. Print.

Michaelowa, Axel. "The German Wind Energy Lobby: How to Promote Costly Technological Change Successfully." *European Environment* 15.3 (2005): 192-99. *European Environment*. Wiley Interscience, 2005. Web. 2011.

Nilsson, Måns, Lars J. Nilsson, and Karin Ericsson. "The Rise and Fall of GO Trading in European Renewable Energy Policy: The Role of Advocacy and Policy Framing." *Energy Policy* 37.11 (2009): 4454-462. Print.

Olson, Mancur. *The Logic of Collective Action; Public Goods and the Theory of Groups*. Cambridge, MA: Harvard UP, 1965. Print.

Snow, David A., Burke E. Rochford, Steven K. Worden, and Robert D. Benford. "“Frame Alignment Processes, Micromobilization and Movement Participation”." *American Sociological Review* 51 (1986): 464-81. Print.

Svendsen, Gert Tinggaard. "Evaluating and Regulating the Impacts of Lobbying in the EU? The Case Study of Green Industries." *Environmental Policy and Governance* 21 (2011): 131-42. *Fusion*. Web. 01 Sept. 2011.

BIBLIOGRAPHY

Beck, U. "Climate for Change, or How to Create a Green Modernity?" *Theory, Culture & Society* 27.2-3 (2010): 254-66. Print.

Beck, Ulrich. *Risk Society: towards a New Modernity*. London: Sage Publications, 1992. Print.

Beyer, Cornelia. "Non-Governmental Organizations as Motors of Change." *Government and Opposition* 42.4 (2007): 513-35. Blackwell Publishing, 2007. Web. 2011.

Beyers, Jan. "Voice and Access: Political Practices of European InteREt Associations." *European Union Politics* 5.2 (2004): 211-40. *Voice and Access*. Sage Publications, 2004. Web. 2011.

Bouwen, Pieter. "Exchanging Access Goods for Access: A Comparative Study of Business Lobbying in the European Union Institutions." *European Journal of Political research* 43.3 (2004): 337-69. Catholic University of Louvain, Belgium. Web. 2011.

Bouwen, Pieter. "The Logic of Access to the European Parliament: Business Lobbying in the Committee on Economic and Monetary Affairs." *JCMS: Journal of Common Market Studies* 42.3 (2004): 473-95. *JCMS*. Blackwell Publishing, 2004. Web. 2011.

Braun, Jan F. "Multiple Sources of Pressure for Change: The Barroso Commission and Energy Policy for an Enlarged EU." *Journal of Contemporary European REeach* 5.3 (2009): 428-51. *Google Scholar*. Web. 22 Aug. 2011.

Chalmers, A. "Refiguring the European Union's Historical Dimension." *European Journal of Political Theory* 5.4 (2006): 437-54. Sage Publications, 2006. Web. 2011.

Crombez, C. "Information, Lobbying and the Legislative Process in the European Union." *European Union Politics* 3.1 (2002): 7-32. Sage Publications, 7 Mar. 2002. Web. 3 Mar. 2011.

Eikeland, Per Ove, and Ingvild Andreassen Sæverud. "Market Diffusion of New Renewable Energy in Europe: Explaining Front-runner and Laggard Positions." *Energy & Environment* 18.1 (2007): 13-36. The Fridtjof Nansen Institute, 2007. Web. 2011.

Eikland, Per O. "EU Internal Energy Market Policy: New Dynamics in the Brussels Policy Game?" *A Canes Working Paper* (2001): 1-61. FRIDTJOF NANSEN INSTITUTE. Web. Mar.-Apr. 2011. <www.fni.no/>.

Eikland, Per O. "The Third Internal Energy Market Package: New Power Relations among Member States, EU Institutions and Non-state Actors?" *Journal of Common Market Studies* 49.2 (2011): 243-63. FRIDTJOF NANSEN INSTITUTE, 2011. Web. Mar.-Apr. 2011.

Ervine, Kate. "The Greying of Green Governance: Power Politics and the Global Environment Facility." *Capitalism Nature Socialism* 18.4 (2007): 125-42. *The Center for Political Ecology*. Routledge. Web. 2011. <cnsjournal.org>.

Gullberg, Anne T. "Rational Lobbying and EU Climate Policy." *International Environmental Agreements* 8 (2008): 161-78. Springer Science and Business, 13 Mar. 2008. Web. 2011.

Gullberg, Anne TheREe. "Lobbying Friends and Foes in Climate Policy: The Case of Business and Environmental InteREt Groups in the European Union." *Energy Policy* 36.8 (2008): 2964-972. *General Science Abstracts*. Web. 21 Mar. 2011.

Haggett, Claire, and David Toke. "Crossing the Great Divide - Using Multi-method Analysis to Understand Opposition to Windfarms." *Public Administration* 84.1 (2006): 103-20. Blackwell Publishing, 2006. Web. 2011.

Honig, Bonnie. "Between Decision and Deliberation: Political Paradox in Democratic Theory." *American Political Science Review* 101.01 (2007): 1. Print.

Ierl, Tom Van, and K. Ger. "The Economics of the New EU Climate and Energy Package." *IOP Conference Series: Earth and Environmental Science* 6.58 (2009): 582006. Print.

International Network for Sustainable Energy. Web. 2011. <Inforse.org>.

Jamasb, T., and M. Pollitt. "Security of Supply and Regulation of Energy Networks☆." *Energy Policy* 36.12 (2008): 4584-589. Print.

Kant, Immanuel, and James W. Ellington. *Grounding for the Metaphysics of Morals*. Indianapolis, IN: Hackett Pub., 1981. Print.

Markussen, Peter, and Gert Tinggaard Svendsen. "Industry Lobbying and the Political Economy of GHG Trade in the European Union." *Energy Policy* 33.2 (2005): 245-55. *Science Direct*. Web. 12 May 2011.

Mayer, Brian, Phil Brown, and Rachel Morello-Frosch. "Labor-Environmental Coalition Formation: Framing and the Right to Know1." *Sociological Forum* 25.4 (2010): 746-68. Print.

Michaelowa, Axel. "The German Wind Energy Lobby: How to Promote Costly

Technological Change Successfully." *European Environment* 15.3 (2005): 192-99. *European Environment*. Wiley Interscience, 2005. Web. 2011.

Nilsson, Måns, Lars J. Nilsson, and Karin Ericsson. "The Rise and Fall of GO Trading in European Renewable Energy Policy: The Role of Advocacy and Policy Framing." *Energy Policy* 37.11 (2009): 4454-462. Print.

Olson, Mancur. *The Logic of Collective Action; Public Goods and the Theory of Groups*. Cambridge, MA: Harvard UP, 1965. Print.

Ouspensky, P. D. *Tertium Organum.* [S.l.]: [s..n.], 1957. Print.

Owens, S., and L. Driffill. "How to Change Attitudes and Behaviours in the Context of Energy☆." *Energy Policy* 36.12 (2008): 4412-418. Print.

Petersson, Bo, Barbara Törnquist-Plewa, and Raphael Sauter. *Energy Security in Europe: Proceedings from the Conference "Energy Security in Europe", Lund 24-25 September 2007*. Lund: Centrum För Europaforskning, Lunds Universitet, 2008. Print.

"Renewable Energy: ProgREsing towards the 2020 Target." *European Commission*. EU, 2010. Web. 2011. <europa.eu>.

Rogers, J., E. Simmons, I. Convery, and A. Weatherall. "Public Perceptions of Opportunities for Community-based Renewable Energy Projects." *Energy Policy* 36.11 (2008): 4217-226. Print.

Schendelen, Rir Van. *Machiavelli in Brussels the Art of Lobbying the EU*. Amsterdam: Amsterdam UP, 2010. Print.

Schreurs, Miranda A., and Yves Tiberghien. "Multi-Level Reinforcement: Explaining European Union Leadership in Climate Change Mitigation." *Global*

Environmental Politics 7.4 (2007): 19-46. MIT, 2007. Web. 2011.

Snow, David A., Burke E. Rochford, Steven K. Worden, and Robert D. Benford. "“Frame Alignment Processes, Micromobilization and Movement Participation”." *American Sociological Review* 51 (1986): 464-81. Print.

Szarka, Joseph. "Wind Power, Policy Learning and Paradigm Change." *Energy Policy* 34.17 (2006): 3041-048. Print.

Toke, David. "Politics By Heuristics: Policy Networks With A Focus On Actor Resources, As Illustrated By The Case Of Renewable Energy Policy Under New Labour." *Public Administration* 88.3 (2010): 764-81. *Fusions*. Web. 12 Sept. 2011.

Ward, H. "International Linkages and Environmental Sustainability: The Effectiveness of the Regime Network." *Journal of Peace research* 43.2 (2006): 149-66. *J-stor*. Web. 22 Mar. 2011.

Wei, Wu Wei. *Fingers Pointing towards the Moon: Reflections of a Pilgrim on the Way*. Boulder, CO: Sentient Publications, 2003. Print.

APPENDICES

Table of Contents

Appendix I

Note: The majority of the following summaries of EU Directives are taken from the INFORSE website and written by Gunnar Boye Olson. I have written all information about the EED for INFORSE.
Please see INFORSE EU Policy Page for a general overview:
http://inforse.org/europe/eupolicy.htm

(Appendix I-A)
Energy Efficiency Directive (EED) June 2011
Please see European Commission Website:
http://ec.europa.eu/energy/efficiency/eed/eed_en.htm
Legal obligations on member states to provide energy savings schemes. Also included is the promotion of energy savings for consumers, to boost the economy and create jobs. There is a strong focus on public sector energy efficiency measure.

(Appendix I-B)
Renewable Energy Directive (RED) April 2009
INFORSE opinion: http://inforse.org/europe/EU_RE-directive.htm
Main Elements of the Renewable Energy Directive:
The directive sets national targets for renewable energy for the 27 EU countries, adding up to a 20% EU-average renewable-energy target for 2020. Each national target is about 13% above the renewable energy use of the country in 2005.

(Appendix I-C)
Energy Services Directive (2006)
European Commission website:
http://ec.europa.eu/energy/efficiency/end-use_en.htm
The purpose of the Energy Service Directive (Directive 2006/32) is to enhance energy end-use efficiency using cost effective improvements. A key element in the directive is a 9% energy efficiency target until 2016 for all EU countries. The directive require all EU countries to make National Energy Efficiency Action Plans (NEEAP)

(Appendix I-D)
Energy Efficiency in Public Buildings Directive (EPBD) May 2010
INFORSE opinion: http://inforse.org/europe/eu_build-di.htm
It calls for increased national regulation for energy efficiency in new and renovated houses. It also includes the framework for national requirements for building systems, such as heating systems and larger ventilation systems.

In July 2012, the new Directive shall be implemented, though many elements including the regulation of building systems only need to be implemented by January 2013 for public buildings and by July 2013 for all buildings.

(Appendix I-E)

Labeling Directives (for energy-efficiency awareness) (9 sector specific Directives)

INFORSE opinion: http://inforse.org/europe/eu_labelling.htm

In May 2010 the updated labeling Directive 2010/30/EU has been adopted. With the directive, a new A+++ class can be used. Where it will be used will be defined in the regulations for specific product groups based on this directive.

***(*Appendix I-F)**
Eco-Design June 2010
INFORSE opinion: http://inforse.org/europe/eu_ecodesign.htm

Energy-efficiency requirements for fans, dishwashers, and washing machines were agreed among the EU countries in the beginning of June. New equipment must be more efficient from 2011 onwards.

(Appendix I-G)
The Co-generation Directive 2004
INFORSE opinion: http://inforse.org/europe/eu_cogen-di.htm

The Cogeneration Directive (Directive 2004/8/EC on the Promotion of Cogeneration Based on a Useful Heat Demand in the Internal Energy Market) attempts to promote cogeneration through a systematic identification and progressive realisation of the national potential for high efficiency cogeneration by creating a common definition and removing barriers. To remove current barriers to cogeneration, Member States would need to enact the following:
· Guarantee that electricity from cogeneration would be transmitted and distributed on the basis of objective, transparent and non-discriminatory criteria.
· Ensure that guarantees of origin of electricity from cogeneration could be issued on request by one or more competent body.
· Make analysis of the national potentials for high-efficiency cogeneration.
· Report on progress

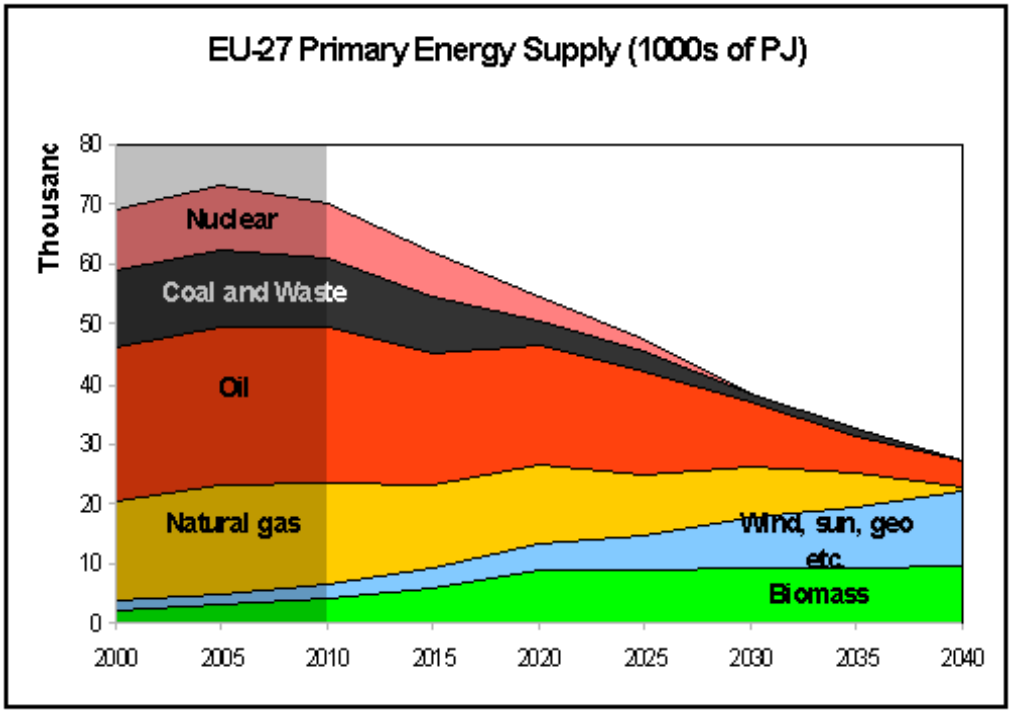
(Appendix I-H)
EU Targets for 2020
INFORSE opinion: http://inforse.org/europe/eu_EE_energystrategy2020.htm

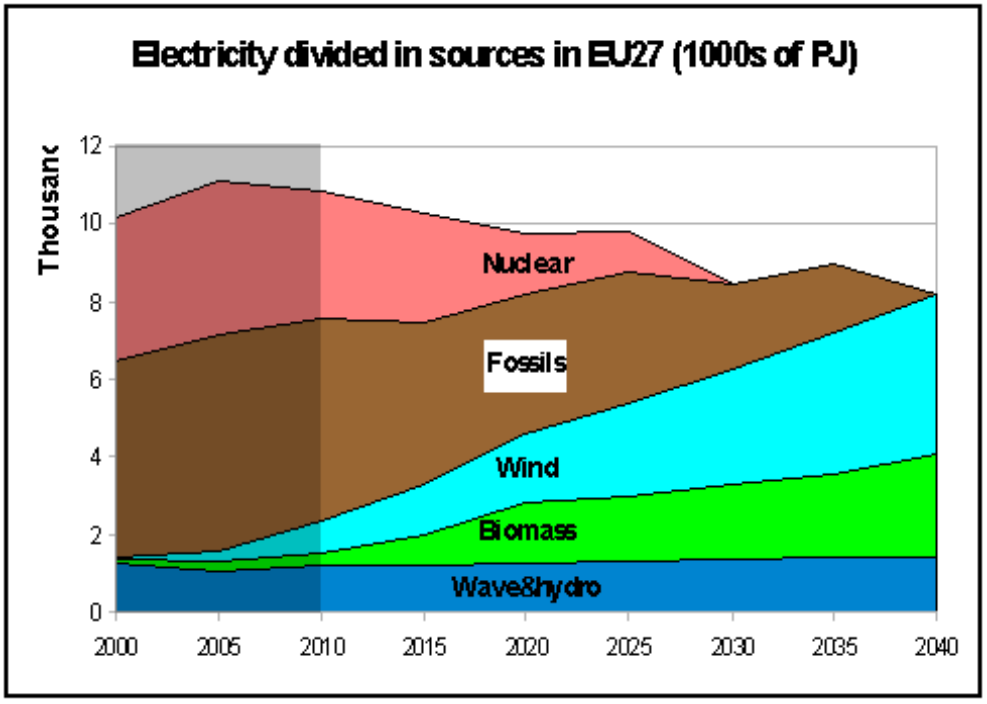
A process started in 2004 to define renewable energy targets for renewable energy in the EU after the first commitment of the Kyoto Protocol. In March 2007 this has Resulted in the decision by the Prime Ministers of a target of 20% renewable energy for the EU-27 by 2020. As part of this target is agreed a target of 10% biofuels in transportation by 2020**;** but no other targets for other sector, such as the electricity or heating cooling sectors. Prime Ministers also "forgot" to specify if the 20% target was a target of primary energy or final energy: it is easier to reach a target of final energy with EU's energy mix; but the final energy target is anyhow promoted by the wind power and PV-power producers, because with current statistical methodology they contribute more

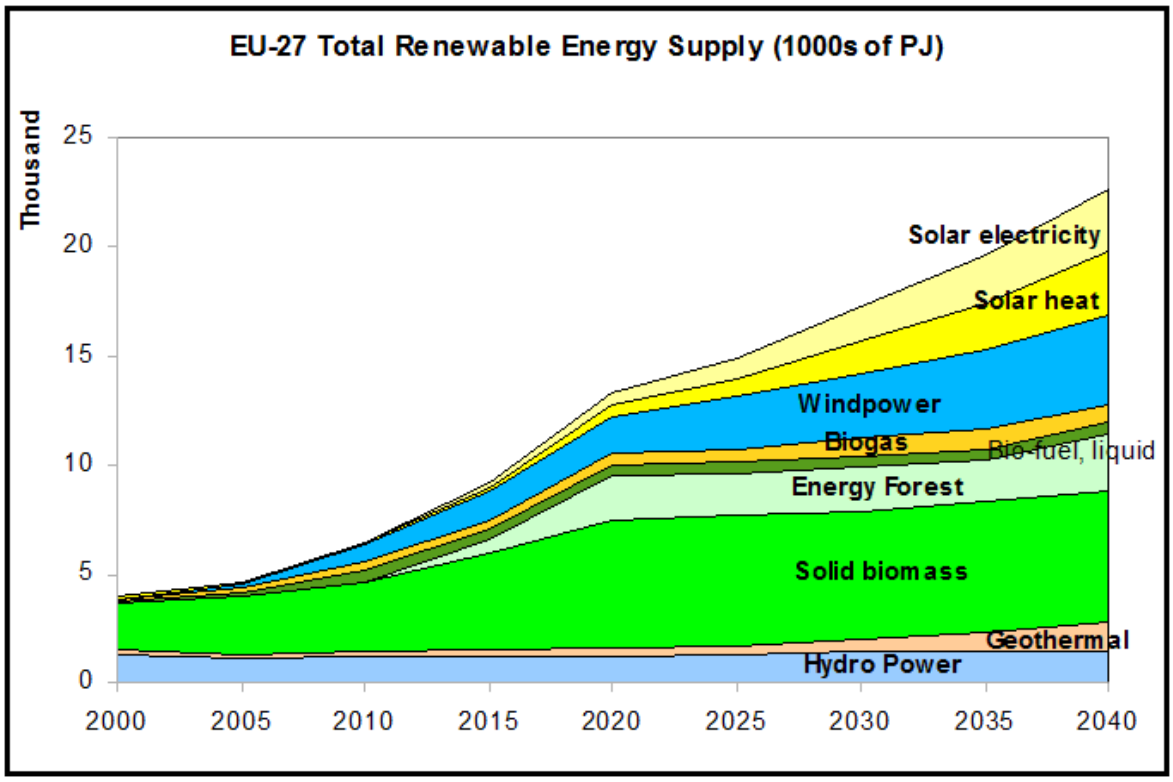
to the final energy target than to the primary energy target.

(Appendix II): EU 27 Maps, INFORSE Scenarios

First image shows primary energy: phase-out of fossil fuel. Second shows electricity phase out.




Electricity divided in sources in EU27 (1000s of PJ)
Thousand
12
10
8
6
4
2
0
2000
2005
2010
2015
2020
2025
2030
2035
2040
Nuclear
Fossils
Wind
Biomass
Wave&hydro



EU 27 renewable energy curve until 2040.

(Appendix III): Research Project

(Appendix III-D): CAN-Europe Conference Summary

Brussels, 12, 13 September 2011
Brussels, Belgium

The main joint positions by NGOs were that a non-binding target, that is a

quantifiable number all MS agree to reach by a certain deadline (in this case December 31st 2020), opened up too many loopholes and left the EED exposed to mismanagement. At the same time, it was understood why the Commission left out the target because "Unlike Co2 and RE targets, EED targets are not binding. They are proposing something and don't want to agitate MS in doing so" (Erica Hope). However most NGOs agreed by pushing national governments towards a binding target, the desired result could have a chance and without it the Directive is rendered inadequate. Also skirting around MS sovereignty was the fact that no financing mechanism was included in the directive because the EU thought member states would immediately reject it if that was the case. This opens up an entirely new dimension of EU Commission lobby techniques, since the EC is its own separate lobby organization to some degree, but this is outside the scope of the present thesis.

(Annex III-E): EED Parliament Debate Summary

October 4th, 2011

European Parliament, Brussels, Belgium

The Coalition for Energy Savings (http://energycoalition.eu/) organized a timely debate for the EED with important stakeholders from industry, government, and NGOs. The aim was to understand the differing points of view about the Directive, points of agreement, along with issues creating fundamental dichotomies between industry and NGO interests. A representative of Eurelectric, one of the most pivotal players in the EU energy market, was among the attendees. Other attendees were the head Rapporteur for the EED, the Ministry of Environment of Germany, Secretary General of Domestic Equipment Manufacturers, Friends of Earth Europe, and a TV journalist.

(Appendix III-F)*:* UNRISD Conference Summary

UNRISD: "Green Economy and Sustainable Development: Bringing Back the Social Dimension"
October 10thand 11th, 2011
United Nations. Geneva, Switzerland

According to the UN's own language the CDM and JI are the two project-based mechanisms which feed the carbon market […] The carbon market is a key tool for reducing emissions worldwide. It was worth 30 billion USD in 2006 and is growing (url: http://unfccc.int/kyoto_protocol/mechanisms/items/1673.php; UN website: The Mechanisms under the Kyoto Protocol: Emissions Trading, the Clean Development Mechanism and Joint Implementation
However at this conference the Researchers presented overwhelming evidence that the carbon market is exactly not a key tool reducing emissions and, what is worse, is directly creating a number of other social and environmental problems. Furthermore it is creating more problems logistically rather than linearly, in the sense that the problems have multiplied by many factors from one implementation of JI or CDM for example, while

the benefits go to a small minority of beneficiaries holding the rights to the carbon. There is little evidence of a global free-rider effect in this scheme since global carbon emissions have only increased under these instruments.

(Appendix III-H): EED Parliament Debate Summary
"New EED-How does Energy Efficiency contribute to cost savings and energy security?"
November 8th, 2011
European Parliament, Brussels, Belgium

This debate was organized by the Polish Representation in Brussels to bring together industry, academic researchers, Environmental NGOs, the Commission, and important MEPs to discuss developments in the EED proposal. Representatives of the Commission spelled out clearly that the EED would not include binding energy or building renovation targets until MS offered willingness to comply. Industry representatives maintained the frame that they need not be regulated in terms of energy because it is something they already have been doing for many years. MEPs enforced the binding target idea if it came with a high degree of flexibility for implementation at the discretion of MS.

(Appendix III-I): EWEA Low Emissions Event Summary

EWEA event: "Achieving 30% lower emissions in the EU: the role of wind energy & other renewables"

November 7th, 2011

Brussels, Belgium

Attendees: Connie Hedegaard (Climate Commissioner), Martin Lidegaard (Minister), Jo Leinen (MEP) and Josche Muth (EWEA)

The purpose of this event was to overtly lobby for EU Policies along with Wind industry successes, all under the carbon frame rhetoric. Wind energy was claimed to play a pivotal role in bringing down EU emissions, therefore bringing the EU in line with targets. Increased GHG targets (from 20-30%) were predicted to further the implementation of renewables into the EU supply. An alarming degree of acceptance for natural gas was echoed during this conference.

Annex IV: Website Articles

(Annex IV-A): EED on INFORSE website written by Kyle S. Herman

URL: http://inforse.org/europe/eu_ee_directive.htm

(Appendix IV-F): UNRISD Conference Website Article written by Kyle S. Herman

URL: http://inforse.org/europe/Conf12_rio20.htm

]

Appendix V- Press Releases and Minutes

(Appendix V-D): Press Release: CAN-EED workshop drafted by Kyle S. Herman Brussels, 12, 13 September 2011

Abstract: Several NGOs gathered in Brussels to discuss the new Energy-efficiency Directive proposed by the European Commission in June. First the Directive was

summarized highlighting main points. These points included the focus on renovating public buildings, co-generation of heat and power (CHP), the potential discrepancy with the ETS, and the lack of binding targets.

Conclusions: The CAN meeting brought forward the many complications of the proposed EED. It highlighted the fact that NGOs must both unify and clarify the points in the directive in order that both the Commission and Member States understand the positives and negatives of all its aspects. There remained a gap in the meeting surrounding ideas for finance; a finance facility was proposed during the meeting but it was unclear how and if this would work since the expertise in this field was lacking among the green NGO representatives present.

(Annex V-E): EED Parliament Debate Press Release drafted by Kyle S. Herman
October 4th, 2011
European Parliament, Brussels
Organized by the Energy Savings Coalition

Introduction:
The Panel discussion came at an important time in the legislative process for the new Energy Efficiency Directive (proposed by the Commission 22 June, 2011). The difference between this proposed Directive and previous ones is its immense scope, both in terms of covering so many sectors of EU society and in potential for energy savings, and thus monetary savings. The Energy Savings Coalition and NGO affiliates view this Directive as a great opportunity to save, on average, 1000 € per household per year in addition to lowering EU CO2 emissions and increasing security of energy supply. However this view was not shared equivocally by other panelists and in the end it became clear that, especially in light of the depth of this Directive, stakeholder dialogues between all societal sectors will become increasingly important to solving many barriers to effective and clear legislation, as well as implementation and monitoring.
Summary:
Though there was almost a unified call for binding targets by all the panelists, notably even admitted by Eurelectric, it was unclear why the Commission continues to not agree. It could perhaps be, in this writers opinion, that the Commission is tentative not to over-step its authority—instead it prefers to leave the Directive without binding targets for sometime until the majority Member States discover it is in their interest to have them and that they do not necessarily impeded on national sovereignty (more than other Directives already do).

(Appendix V-F): UNRISD Conference Press Release drafted by Kyle S. Herman

UNRISD: “Green Economy and Sustainable Development: Bringing Back the Social Dimension”
October 10th and 11th, 2011
United Nations. Geneva, Switzerland

Competing paradigms:

One aspect of the green economy was completely dependent on the success or failure of another, while at the same time all different dimensions competed for interest and change. The current climate strategies should not succumb to neo-economic hijacking by powerful capitalist interest. It was shown how the current Carbon Trading scheme only served the Industrial-Capitalist model only by "appropriation of created rights by the most powerful economic agents" (Pascal, 2011: 13).

Policy Coherence:

The fact that environmental policies should be but aren't aligned was demonstrated in many countries. Clearly there is a thread available to connect many of the policies, but the clarity and efficacy of such policies is frequently threatened by interest groups, political corruption, and profiteering by business. The collapse of the 20th century welfare state is an opportunity to create the 21st century eco-state but "At present [solutions] are mainly studied, and policies developed, within separate silos, but that would need to change […] with deeper forms of public policy integration and coherence" (Gough, 2011: 18).

Agency, interest, and coalitions:

Researchers should liaise more frequently with advocates and likewise advocates need to source local NGO knowledge to better understand successes. Unfortunately this idea had already been discussed since at least Rio 1992 but from the idea stage to actuality appears a challenging feat. In Brazil it was evident that stakeholder dialogue was lacking and thus required "The search for a more coordinated and cooperative action, both in the horizontal and vertical way, as well as the effective incorporation of civil society" (Sano, 2011: 16).

Community, values, institutions, dynamics:

Government has the capacity to influence consumer choices and should integrate citizens, consumers, and producers into a so-called green economy matrix. It is therefore "essential that governments encourage citizenship to address climate change and ensure there are sufficient incentives generated through consumer choices so both roles can work harmoniously" for the green economy (Merrit, Stubbs, 2011: 2).

The social construction of markets:

This idea understands that these problems often lie outside the scope of governance as it functions today. Markets everywhere are systemic drivers for natural Resource degradation and governance gaps remain. Local knowledge needs to be connected with government programs. An example was given by an indigenous leader in Australia whose tribes' land was retaken and managed by the government (under Payment for Ecosystem Services) (Winer, Murphy, Ludwick, 2011: 17).

Agriculture and rural development:

The Reducing Emissions from Deforestation in Developing Countries (UN-REDD) program is an ambitious plan to sequester harmful carbon in forest, which is potentially the most powerful solution to global climate change. However, as was illustrated with the carbon trading, the REDD program appears to be further exacerbating social inequalities rather than creating opportunities for developing countries. This was shown to occur in Thailand where windfall profits were made by planting rubber trees through REDD while local populations received virtually no benefits (Srang-iam, 2011).

[i] Many actors use the word carbon (for instance carbon reductions, carbon emissions) as a springboard for speaking of energy and climate dilemmas. Through this case study it has become evident that the word carbon has become a dominant part of related language.
[ii] See Appendix II or www.inforse.org/europe
[iii] The International Network for Sustainable Energy (INFORSE) has created scenarios to move Europe towards a society based on 100% renewable energy sources. They have also created scenarios, based on known technology and resources, to move individual EU countries towards a 100% RE society. Most country scenarios propose this is possible by the year 2050 (with the exception of Denmark and Latvia). See appendix II for scenario graphs. For all country scenarios see the INFORSE website: http://inforse.org/europe/Vision2050.htm
[iv] INFORSE has lobbied strongly against nuclear energy on the basis of social, economic, and environmental bases. Data showing the low conversion rates of nuclear energy can be found on the INFORSE nuclear page: http://inforse.org/europe/nuclear.htm
[v] The European Union has, by many accounts, began implementing some of the most progressive renewable energy policies in the world. As a collection of countries, it has already the highest share of renewable energy in the world. Dominant fossil and uranium energy companies, however, have lobbied heavily to dilute these policies or otherwise help them become completely rejected.
[vi] See Appendix I-H
[vii] See Appendix IV-A
[viii] Over 1 billion euros was given to fund CCS in the European Economic recovery grants, while fewer than 300 million euros were distributed to all other RE. Furthermore, much of ETS profits are funneled into CCS projects.
[ix] It should be noted that all members of the Green-10 have massive membership, and thus individually constitute “large” groups. Thus taken individually, or as the Green-10, these groups seek the collective benefit of stronger RE policy.

[x] For further reading see UNRISD Press Release: (Appendix V-F) and the UNRISD website: http://www.unrisd.org/events/greeneconomy

[xi] See Appendix I (2.6): Co-Generation Directive
[xii] For further reading see: Parliament Debate #1: (Appendix V-E) and Coalition for Energy Savings: http://www.stefanscheuer.eu/coalition.html

[xiii] ECF Conference Minutes: (Appendix V-G)
[xiv] For further reading see CAN-Europe Press Release (Appendix V-D) and CAN-Europe website: http://www.climatenetwork.org/policy-information

[xv] For further reading see European Renewable Energies Federation: http://www.eref-europe.org/
[xvi] For Hamburg Seminar presentations see INFORSE website: Hamburg Seminar Presentations: http://inforse.org/europe)

[xvii] For further reading see CAN-Europe Summary: (Annex III: D)

[xviii] See the website article I wrote regarding the UNRISD conference here: http://inforse.org/europe/Conf12_rio20.htm
[xix] For further information see EED Parliament Debate #1 Press Release: (Appendix V-E) and Summary: (Appendix III-E)

[xx] For more information about the coalition idea see Hamburg Seminar Coalition idea: (Appendix VI-A-2)

[xxi] **(**www.thrivable.net**)**