

Development and International Relations China and International Relations (CIR) A Joint Master's Program





Master Thesis

China's national energy interest and incentives for cooperation in areas of energy
- A case study of the bilateral Sino-Danish relation

Supervisor A: Hao Min Supervisor B: Wu Fuzuo Hand-in: 16. May 2016 Total keystrokes: 165.226

I. Title page

The following project represents my thesis in Development and International Relations – China and International Relations at Aalborg University, Denmark and University of International Relations, China.

I would like to express my gratitude towards my A and B supervisors, Hao Min and Wu Fuzou, for their help, advise and support in writing the thesis. My gratitude also extends to the assistant professor at Aalborg University, Ane Bisley, for her supplying supervision.

Further, I would like to thank the University of International Relations and Aalborg University for the opportunity of studying a joint master's program. The exchange with UIR and the interaction with my fellow students from Europe and China have supported my knowledge about China and International Relations.

Sissel Mai Ødegaard

May 16 2016

University of International Relations, Beijing and Aalborg University, Denmark

II. Abstract

The rapid growth in China's energy need and the extraordinary coal dependency has had fatal consequences. The Chinese citizens are paying the price and consequences of pollution, and the carbon dioxide emissions of the nation are contributing significantly to the climate burden imposed by developing industrial countries. GOC expressed a desire to confront the pollution problem at the latest COP21, which left people to wonder about the future consequences for the Chinese society. This thesis aims at answering "Why is the bilateral Sino-Danish cooperation in renewable energy affected by national interests?" Denmark is a pioneer country in renewable energy, and the bilateral Sino-Danish relation is considered important in the development of a more sustainable energy mix in China. China's 13th FYP and the political agenda concerning energy underline how GOC is looking towards more sustainable energy consumption. To approach the national interests of both countries, the analysis is separated into four main topics. The thesis shows how the cooperation is strongly affected by national interests and the complexity of the cultural, political, economic and security interests of both Denmark and China in the cooperation of renewable energy. Both China and Denmark benefit from the agreement in different ways and with different objectives. Renewable energy can therefore be argued to affect the cooperation, and the answer to the problem statement can be found in the motivations of the bilateral Sino-Danish relation. Thus, the national interest of both Denmark and China is to safeguard the development and survival of the nation states through their foreign policy and agreements of cooperation. The discussion includes views by experts on the energy developing China. Moreover, the Danish aspect of interest to safeguard a small state's interest in an international society is discussed. The conclusion offers an answer to the problem statement and further narrows down the importance of renewable energy in the bilateral Sino-Danish relation.

Keywords: The bilateral Sino-Danish relation, Renewable Energy, National Interest, Foreign Policy, Development and Sustainable Transition.

Table of content

I. TITLE PAGE	2
II. ABSTRACT	3
III. ABBREVIATION LIST	6
IV. LIST OF FIGURES, TABLES AND APPENDICES	
1.0 INTRODUCTION	
1.1 PROBLEM STATEMENT	
1.2 SUB-QUESTIONS	
1.4 PROJECT DESIGN	
1.5 CLARIFICATION OF CONCEPTS	
2.0 METHODOLOGY	
2.1 Literature review	
2.2 SCIENTIFIC APPROACH	
2.3 CASE STUDY AS RESEARCH DESIGN	
2.3.1 The case study: Sino-Danish relation	
2.4 SELECTION OF DATA	
2.4.1 CARS-Method	19
2.4.2 Interviews	20
2.4.3 Selection of interviewees	
2.4.4 Interview guide	
2.5 THEORETICAL FRAMEWORK	
2.6 STRUCTURE OF THE ANALYSIS	
2.7 STRUCTURE OF THE DISCUSSION	
2.8 STRUCTURE OF THE CONCLUSION2.9 LIMITATIONS	
3.0 CONTEXTUAL BACKGROUND	
3.2 OVERVIEW OF CHINA	
3.3 SINO-DANISH RELATION AND ENERGY COOPERATION	_
4.0 DESCRIPTION	
4.2 China External Cooperation and Energy Interest	
5.0 THEORY	
5.2 SOCIAL CONSTRUCTIVISM	
6.0 ANALYSIS	
6.1 CULTURAL INTEREST –IDENTITY INTEREST	
6.2 POLITICAL INTERESTS	
6.3 ECONOMIC INTEREST	
6.4 SECURITY INTEREST	
7.0 DISCUSSION	72
7.1 DISCUSSION OF RESULTS AND CHINA'S ROLE	
8.0 CONCLUSION	76
9 O RIRLIOGRAPHY	79

10.0 APPENDICES	88
Appendix 1	88
APPENDIX 2	91
A: Fan Lijuan Head of international and Regional Cooperation Department at China National	
Renewable Energy Centre	91
B: Professor Zhang Xiliang is Excusive Director of the Institute of Energy, Environment and Econ	nomy
at Tsinghua University, Beijing	97
C: Comments from Thomas Shapiro-Bengtsen, the energy attaché counselor at the royal Danish	
Embassy in Beijing	101
APPENDIX 3	103
Sources used in analysis and discussion review with CARS-Method	103
APPENDIX 4	111
Distributional view of sources utilized in analysis according to CARS (App. 3)	111

III. Abbreviation list

13TH FYP – 13TH Five-Year-Plan

CAT – Climate Action Tracker

CNREC - China's National Renewable Energy Centre

DWEA - Danish Wind Export Association

ERI – Energy Research Institute

EU – Europe

GE – Green energy

GNI - Gross National Income

GOC - Government of China

NDRC - National Development and Reform Commission People's Republic of China

NEA – National Energy Agency

RE – Renewable Energy

RED - Renewable Energy Development Program

UN – United Nations

WED – Wind Development Program

WHO – World Health Organization

IV. List of Figures, Tables and Appendices

Figures:

Figure 1: Project Design

Figure 2: Hermeneutical spiral

Figure 3: Structure of the analysis

Figure 4: Structure of the discussion

Figure 5: Structure of the conclusion

Figure 6: Reuters Coal remains dominant in China's energy mix

Figure 7: China Import Countries 2011

Figure 8: China's policy-making in energy.

Figure 9: Deaths from ambient air pollution

Figure 10: Development in Energy Consumption

Figure 11: Total amount of investment to fight pollution

Figure 12: China's Oil production and Consumption

Figure 13: China's Import Routes

Figure 14: Denmark-China – a mutually beneficial partnership

Figure 15: Danish objectives of cooperation

Figure 16: Priorities for a strengthened Danish-Chinese cooperation

Tables:

Table 1: CARS-Method

Appendices

Appendix 1 – Interview guide

Appendix 2 – Transcribed interview

- A. Fan Lijuan Head of international and Regional Cooperation Department at China National Renewable Energy Centre
- B. Professor Zhang Xiliang is Excusive Director of the Institute of Energy, Environment and Economy at Tsinghua University, Beijing
- C. Comments from Thomas Shapiro-Bengtsen, the energy attaché counselor at the royal Danish Embassy in Beijing

Appendix 3 - Sources used in analysis and discussion review with CARS-Method

Appendix4 - Distributional view of sources utilized in analysis according to CARS (App. 3)

1.0 Introduction

Throughout the past decades, the development in China's economy has put the nation in a position of great power. According to economic, military and political measures of great powers, China has reached a position of potential global leader. One of the continuous dilemmas of developing the country exists in the lack of natural resources. The carbon dioxide emissions of the nation are contributing significantly to the climate burden worldwide, and, as a nation, China experiences first-hand consequences of pollution, affecting the population in matters of health and quality of life. Especially the focus on China, as one of the world's greatest polluters (Koschyk 2015), has put pressure on the GOC. At the latest United Nation climate conference in Paris, COP21, China announced an ambition of revising its energy policy in the 13th Five Year Plan (Ibid). This should include focus on more clean energy and protection of the environment. In facing the problems of pollution, China has chosen to cooperate with foreign countries to develop its policy. This cooperation is dealt with in the same manner as other international relations of China. While promoting peace, development and cooperation as the main goal of the foreign policy, China expresses to the international society with the Five Principles of Peaceful Coexistence "mutual respect for sovereignty and territorial integrity, mutual non-aggression, non-interference in each other's internal affairs, equality and mutual benefit, and peaceful coexistence". This is done to reach national interest of development within China (Panda 2014). The basic goals of China's foreign policy and diplomatic relations are well defined, to achieve opportunities of development and safeguard national interests, through "[...] peaceful and stable international environment, an environment of neighborliness, and equal and mutually beneficial climate for cooperation and objective and positive recognition from the international community, and to facilitate the program of building well-off society in an all-around way." (Ibid). In the process of realizing these goals, the reduction of pollution is of great concern and China is investigated along with foreign nations, such as Denmark. This leads to a question about the mutual benefit and political incitement of the involved parties, and whether the Sino-Danish relation in energy has more than one goal in terms of national interest. Subsequently, the thesis aims to understand how the cooperation in RE in the Sino-Danish relation is affected by national interest. By looking at the Sino-Danish relation, the thesis stresses the case study to understand and obtain a general idea about Chinese and Danish agendas of interacting in policy-making and implementation of renewable energy. Moreover, a wider conception of how political incitements and national interest affect international relations is included to comprehend the complexity of the bilateral Sino-Danish relation and cooperation within renewable energy.

1.1 Problem statement

As mentioned, the base of the thesis is to understand the motivation of cooperation in RE in the Sino-Danish relation, and how this is affected by national interest and policy-making on energy. The case of the Sino-Danish relation is chosen to focus on China's international interaction in this specific case. Further, the study has been narrowed down to focus on Chinese and Danish national interests in renewable energy, and how the Sino-Danish relation is a case of international relations in this manner. This has led to the following problem statement:

"Why is the bilateral Sino-Danish cooperation in renewable energy affected by national interests?"

1.2 Sub-questions

To answer the problem statement, the following sub-questions have been formulated to assure that the central aspects of the Sino-Danish relation are included:

- *I.* How is China's interest in renewable energy in general affected by the national interests?
- II. What are the incitements for cooperating with Denmark in renewable energy?
- *III.* In what does the Danish interests in cooperating with China in renewable energy consist?

1.3 Relevance of the problem statement

The problem statement is surely relevant due to China's ongoing economic growth and development towards possibly becoming a world leader. China's growing economy and role as the world's largest economy (The World Bank 2011) has led to an increasing role in the international society but numerous problems are still preventing China from obtaining this. China's development has been followed by a greater need for energy, and throughout half a century, the industrial sector in China has increased and created a need for energy supply. China has already surpassed the United States as the "country with the highest rate of energy consumption" (Ibid: 8). As a drawback, the fast development has caused a less flattering status as one of the main polluters in the world (Koschyk 2015). Since China is one of the countries that do not contain natural resources in the amounts needed, the lack of energy supply has resulted in the necessity for cooperation with the international society to meet the demands for energy (Ibid). In 2005, China became the second-largest importer of oil (Zweig and Bi 2005) putting a pressure on China's foreign policy because

good relations are vital to China's import of energy. Countries today are more dependent on each other due to an increased exchange in import-export of goods, knowledge and human capital. This dependency demands good relationships between countries. These are achieved through a country's foreign policy towards other countries in the international society. At the latest United Nation climate conference in Paris, GOC proclaimed that the energy policy of the country is to be revised (Koschyk 2015). With the first draft of the 13th FYP released in October 2015, GOC announced that both clean energy and environmental protection are to be part of the energy policy of the country (Ibid). The new tendency to change the energy policy will potentially be an invitation for the countries containing knowledge within clean energy and environmental protection, which could enable China to reach those exact objectives.

As mentioned in the problem statement, the thesis aims to understand how foreign relations, such as the case of the bilateral Sino-Danish relation, can empower the national interest and policy-making in renewable energy. In 2006, China implemented the Renewable Energy Law, which was revised in 2009 to fit the industrial development (Gao 2014). The developments within RE could potentially be a way to meet the challenges of the increasing shortage of energy and not just change the tendency to harm the environment. Through the formulation of the RE plan, the GOC assured that "by 2020 non-fossil fuel will account for 15 % of energy consumption, and that by 2020 CO2 emissions will reduce by 40-45 % of 2005" (Ibid). This development requires that China actively get involved in the reduction of the global climate issues. Through the released sections of the above-mentioned 13th FYP, indications of a change in the energy policy of China are presented, thus making the subject very relevant for research. It is not only relevant to investigate how the bilateral Sino-Danish relation affect China's political incitements, but it also requires a look at what benefits Denmark potentially gain from cooperation with an emerging power such as China. By analysing the bilateral Sino-Danish relation using means of realism and social constructivism, the thesis aims at answering how China's national interest and foreign policy will affect the development within China. With the Five Principles of Peaceful Coexistence, which constitute the foreign policy, the internal development of China is relying on China as an individual nation providing security for its citizens and securing further development. China continues to be an emerging power in the international society, and its wish to maintain good relations with the international society includes changes in the energy policy, as presented above, making the problem statement relevant in relation to a current tendency in China's behavior as a nation.

1.4 Project design

In the following paragraph, the model displays how the thesis will be structured, from the problem statement to the final conclusion.

PROBLEM STATEMENT:

Why is the bilateral Sino-Danish cooperation in renewable energy affected by international interest?



Scholar papers, articles and interviews



ANALYSIS

The analysis will consist of four parts clarifying the national interest in the bilateral Sino-Danish relation.

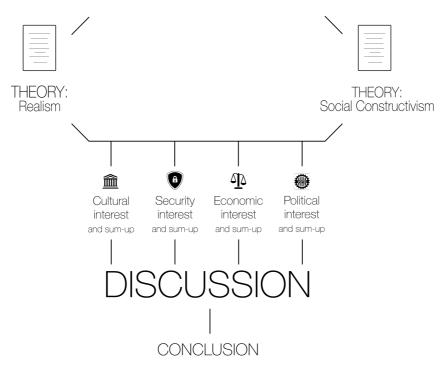


Figure 1, Source: Own design

1.5 Clarification of concepts

Throughout the thesis, the following concepts are adopted to answer the problem statement and sub-questions.

- The Sino-Danish relation The diplomatic relation between China and Denmark in manners of social, development, energy, security, and politics with unbroken diplomatic ties as of 1908, since Denmark recognized the People's Republic of China the January 9th 1950 and the exchange of notes of May 11th 1950 (Denmark in China 2015).
- Renewable energy "any naturally occurring, theoretically inexhaustible source of energy, as biomass, solar, wind, tidal, wave, and hydroelectric power, that is not derived from fossil or nuclear fuel" (Dictionary.com 2016).
- National interest "[...] a nation is the most basic human group or actor in international politics; therefore it is the most important social entity of interest in the global context" (Yan 2002, 12).
- **Green Energy** "energy that can be produced in a way that protects the natural environment, for example by using wind, water or the sun" (Cambridge Dictionaries 2016).
- The Danish Experience "through persistent and active energy policy focused on enhanced energy efficiency and ambitious use of renewables, it is possible to sustain significant economic growth and simultaneously reduce fossil-fuel dependency while protecting the climate and environment" (State of Green 2015: 3).
- Shanghai Cooperation Organization ""[...] an intergovernmental international organization founded in Shanghai on June 15, 2001 by six countries: China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan. Its member states cover an area of over 30 million km² or about three fifths of Eurasia, with a population of 1,455 billion, about a quarter of the world's total. Its working languages are Chinese and Russian." (Global Security 2014).

2.0 Methodology

In the following chapter, methodological tools applied in the thesis will be presented. The chapter serves the purpose of providing a guideline for the reader to follow the chosen methodology in the process of writing the thesis.

The chapter presents the methodological choices that e.g. include a case study research design and the chosen case, i.e. the bilateral Sino-Danish relation. The scientific approach and the applied data will also be explained. Following, the structure of the analysis, discussion, and conclusion will be outlined; hence these are believed to provide the reader with a better understanding of how the thesis is organized.

2.1 Literature review

The following literature review has the purpose of clarifying what is already known about China's national interest in manners of energy and how this is related to the bilateral Sino-Danish relation. The articles and official reports on the Sino-Danish relation generally introduce widespread data indicating the importance of the relation for the development of both Denmark and China. Although literature exists on the Sino-Danish cooperation in renewable energy, no concrete reports or former studies seem to address the national interest of the parties involved. Therefore, the following studies are included as they address the overall topic of the thesis with consistency but without completely resembling the exact topic. In general, official reports from both China's and Denmark's governments can be included in this review to establish a general understanding of the cooperation within energy. For instance, the Foreign Ministry of Denmark has the latest updated version of the description of the "Sino-Danish relations" (Denmark in China 2015), which is an indication of the importance of the history and relevance of the relation. This is considered essential to include to address China's energy development, as it is part of the international cooperation in energy. The official reports are neither addressing the national interest in the cooperation in energy in general nor RE, which creates a base of the unique perspective of the research area of the thesis. The research conducted in 2010 by Zhen Yu Zhao, Jian Zou, Tian Tian Feng and George Zillante highlights the importance of cooperation in "International cooperation on renewable energy development in China – a critical analysis" (Zhao et.al. 2010). In this research, the authors underline that international cooperation constitutes an important part of the development of RE in China, thus, "insufficient funds, lack of technology innovation, unsubstantial industry structures and lack of development expertise" (Ibid: 1105) are all areas where China is still lagging behind other countries. The research further outlines the organizations and countries China is working with

to implement RE into the energy system, and moreover, in what kind of projects China is working with different external partners. The research has its focus on how RE policies are developed with support and funds from these external partners. The aspect of the governmental activities and the challenges are also covered. The conclusion of the report states:

"The major benefits associated with the international cooperation on renewable energy are: accessing finance to support the effective exploration and utilization of renewable energy, importing advanced technologies to accelerate the technology R&D process, accelerating the human resource development and market reform, enhancing the policy framework."

(Ibid: 1110)

However, GOC is attributed an essential role in the solution of the barriers of international cooperation in: "biomass energy, equality issues and lack of involvement of state-owned enterprises" (Ibid: 1110). Although the study addresses some of the major issues in China's interaction with the international society and cooperation in RE, the lack of description of national interest makes it possible to question whether the interest of GOC is covered in the cooperation with the mentioned external partners or what other incitements might be included. In relation to Denmark the study on "China's energy security and its challenges towards 2035" (Odgaard & Delman 2014) can be included, where the report addresses further the issue of China's energy demand and energy diplomacy. Ole Odgaard and Jørgen Delman study the connection between China's energy consumption and the energy security in the future. They point out the Chinese government's role in securing the energy supplies, which is relevant in relation to the chosen topic of the thesis. Through an analysis based on public accessible data related to energy, the research focuses on how the growing energy consumption will demand that the policy in China evolves. Further, the importance of China's role in the international society is discussed according to the rational choice theory (Ibid).

"However, rational choice does not always govern political decision making. History has proven repeatedly that political or military mismanagement may ignite latent conflicts. The situation at the contested territories in the waters around China may run out of control, and the concerned countries, including China, could find it difficult to disengage if a diplomatic conflict should escalate into a military one. Therefore, there is a continuous need for development of better and more transparent confidence building measures to safeguard the existing "rules of the game".

(Ibid: 116)

This argument is relevant for the topic of the thesis since it underlines the importance of how China's energy security is strongly related to the international society and how protecting China's national interest in energy security might end in conflict. Therefore, the development of RE can be argued to have great relevance in this matter. Odgaard and Delman conclude that China most likely will play by the "rules of the game" but also use the growing political, diplomatic, and commercial influence to change the very same rules (Ibid: 116). This is in relation to the chosen topic very interesting because the Sino-Danish relation is an international cooperation and China's national interest is possibly also reflected in this relation as it is mentioned above.

China's national interest in energy is further discussed in various studies and, as mentioned above, the energy security is emphasized. In manners of national interest, the 13th FYP is a clear indication of how the government wishes to address climate and energy under "the new normal". The presentation of objectives, including raising energy efficiency, reduction of pollution, and encouraging a low-carbon production and "green lifestyle", form part of China's political objectives within the next five years (Hong 2015). The goals of developing a sustainable energy mix have been on the political agenda since 2006, where GOC implemented the Renewable Energy Law (Gao 2014). The Energy Development Strategy Action Plan (2014-2020) can also be included as literature concerning the national interest to reach a "more efficient, self-sufficient, green and innovative" energy system in China (Delman 2014: 13). This can, in relation to the thesis, be directly linked to the Sino-Danish relation as the objectives of the GOC include international cooperation. The Sino-Danish relation in RE influences the policymaking on energy directly as the CNREC is contributing with research and advise to the GOC and thereby emphasizes the importance of the cooperation between the two nations. This makes the topic of the thesis relevant in addition to former research since it aims to clarify the relevance of national interests in an international cooperation within RE and presents a unique angle on the aspects of the cooperation between Denmark and China.

2.2 Scientific Approach

The aim with the thesis is to investigate the bilateral Sino-Danish relation and answer the problem statement; "Why is the bilateral Sino-Danish cooperation in renewable energy affected by national interests?" While international relations frame the investigation with focus on one case, the problem can also be considered to be of social/society character. Therefore, a social constructivist perspective will be applied within the thesis.

Social constructivism, as a scientific approach, allows the researcher to focus on the transformations of societal phenomena that change over time and are created due to human actions (Rasborg 2004). China is, as described in the introduction, showing willingness to change towards a more green energy combination and this can be considered to be a progress of change, therefore the scientific approach should correspond to this. According to social constructivism, ontology is established in a dual social reality and is constituted in both an objective reality as well as a socially constructed reality (Berger 2002). This means the actors, in this case Denmark and China, have to precede both the material and socially constructed reality. By including realism and social constructivism as theories in the thesis, the purpose is to approach the case both as an objective and constructed reality.

Because the methodological approach of the project is a case study research design, the question of generalization must be clarified. The thesis will approach the case with a generalization based on abduction (Johansson 2003) since the generalization will be analytical and based on an assumption of national interest relating to the bilateral Sino-Danish relation. Abduction can be explained as follow:

"[Abduction] is where we find some very curious circumstance, which would be explained by the supposition that it was a case of a certain general rule, and thereupon adopt that supposition. Or where we find that in certain respects two objects have strong resemblance, and that they resemble one another strongly in other respects." (Johansson 2003: 9)

This allows the thesis to be based on an assumption about the relations in the case. Abduction will thereby be used as a "process of facing an unexpected fact, applying some rule (known already or created for the occasion), and, as a result, positing a case that may be." (Johansson 2003: 9). By demonstrating the problem of the thesis as a case that may be, the relation between the objective and the socially constructed reality stresses the importance of understanding the constant transformation created by human actions in social and international relations. By investigating the case based on social constructivism, the thesis and the research will be influenced by hermeneutic principles. This means the study of the case will consist of an iterative process of exchange between existing knowledge and new knowledge towards a new realm of understanding (Collin 2003). This process is characterized by working from pre-understanding to interpretations and then create a new ground for understanding, and repeating this pattern, thus, working in a circular movement between pre-understanding and understanding to achieve a fuller comprehension of both the individual parts and the whole of a complex problem. In the figure below the hermeneutic circle

is illustrated.

Figure 2: Hermeneutic circle

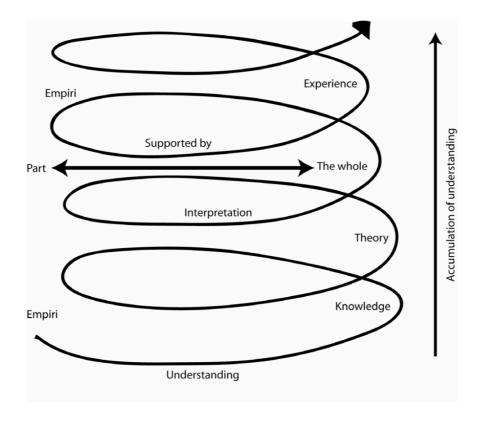


Figure 2 Source: Wängelin s.a.

In the thesis, this more specifically means that the investigation will be based on the question raised in the problem statement. Following, the descriptions of facts and theory create a new foundation of knowledge from where the analysis will take its point of departure. By looking at the cultural, political, economic, and security interest, the hermeneutical approach will help in the process towards understanding the interpreted and thereby creating a foundation of new knowledge. By including a variety of data, the hermeneutical approach also helps in the process of understanding how the many components of the applied data lead to a new pre-understanding from were the next part of the analysis could commence. By going back to the problem statement and sub-questions presented in the thesis, the conclusion will in the end be a product of understanding how the four national interests affect the final answer. Thereby, the idea of seeing four interests as individual parts in a whole of a complex problem helps the researcher and improves the process of going from one understanding to another based on the research.

2.3 Case study as research design

To investigate the problem statement and the sub-questions of the thesis the case study research design is applied. When applying the case study research design, the objective is to be able to analyze cases in detail. That the design allows the researcher to examine a given topic profoundly is considered to be the strength of the research method (Yin 206: 111). A given case can be associated with a number of entities e.g. organizations, communities, schools, locations, etc. (Bryman, 2012: 66f). The data collection in a case study can consist of observations, statistics, written documents, etc., thus, providing the researcher the possibility to use the different datasets in the process of examining the case. Therefore, it is possible to include both qualitative and quantitative data if needed (Yin 2006: 112). In the process of conducting a case study, it is important to define what the case is and what underlying subjects should be covered in the case. The case study can consist of a single case or multiple cases to be studied. In the scenario of a single case, the researcher can study the given case in-depth by only focusing on a specific example. (Ibid) Since this thesis aims to investigate the Sino-Danish relation, the method will have its starting point in the single case study. This provides the researcher with the possibility of a thesis based on much in-depth understanding and comprehensive analysis of one case rather than focusing on multiple cases.

2.3.1 The case study: Sino-Danish relation

As mentioned in 2.3, it is important to define the case upon which the study will be conducted. The following is a description of the case of the bilateral Sino-Danish relation, their cooperation in energy, and national interests.

China cooperates with multiple countries in terms of energy. Multiple relations in the development of China affect import of natural resources and energy supply. In the investigation of the bilateral Sino-Danish relation, it is important to define where focus mainly will be placed. The underlying subjects of the thesis aim to clarify the national interests in relation to energy in four points: cultural, political, economic, and security interest. By studying the individual areas of the complex national interest, the case study research method should support the process of answering the problem statement and sub-questions of the thesis. Further, the chosen theories, realism and social constructivism, are applied to clarify and understand the chosen case. By doing so, the thesis aims at creating new empirical data within the analysis by using the existing theories and material as the foundation and thereby create a structure in the analytical part of the analysis, helping the researcher to outline what aspects of the case are to be focused on (Antoft 2007: 37f). From this

perspective, it must be underlined that a different theory or different aspects of focus, applied on the same empirical data, might lead to another result (Ibid).

2.4 Selection of data

The amount of data on national interest and energy is substantial and the bilateral Sino-Danish relation exists in more than areas of energy. The chosen method is a case study, and the focus will thereby be on the interest in energy and how the national interest affects this, where the data applied will mainly consist of reports and articles. To be able to select data with the most relevant information, a systematic approach must be applied (Yin 2003: 87). One of the strengths in doing a case study is that it is possible to use many different methods when collecting the empirical data (Ibid). This is an advantage when conducting in-depth analysis; it allows many different angles on the bilateral Sino-Danish relation. As mentioned, documents such as articles and reports will be the foundation of the empirical data and the selection of the documents will take its point of departure in the CARS-method, explained in 2.4.1, to ensure the relevance of each document. To ensure a more complex understanding of the case and problem of the thesis, expert interviews will also be part of the empirical data. The expert interviews, explained in 2.4.2, will be conducted to elaborate on the case and get an understanding that is considered necessary and relevant to outline the details of the research complexity. Furthermore, this will make it possible to support the chosen written material since the interviewees are expected to carry expert knowledge. With data collected using both quantitative and qualitative methods, methods triangulation will be applied to the case to explain the problem put forward in this thesis (Ibid).

2.4.1 CARS-Method

Stability is considered strength of the data, which consists of articles, reports, and supplementing documents, since existing documents cannot change form or content. Further, the possibility of working with a widespread of data allows the researcher to approach the case from several perspectives (Yin 2003). Though, using data produced by different sources can also be troublesome and the weakness in using a widespread of data includes the researcher's obligation to stay critical throughout the process. Consequently, all existing documents must be considered according to what context in which they were released and with what purpose. Robert Yin refers to this weakness with the statement: "In this sense, the case study investigator is a vicarious observer, and the documentary evidence reflects a communication among other parties attempting to achieve some other objectives" (Yin 2003: 87). With this in mind, this thesis aims at researching a current and ongoing situation. Basing the choice of data on the CARS-method provides a frame for data selection

based on Credibility, Accuracy, Reasonableness, and Support (CARS), thus, making it possible to evaluate the informational sources of the thesis with a common starting point (Granite State College University System of New Hampshire 2015). One weakness of this method is that few sources can be expected to meet the full criteria (Ibid). However, by applying a common foundation, as mentioned above, it is possible to defend the selection of documents, such as articles and reports, as data. The following model specifies the foundation of the fixed criteria.

Table 1: CARS-Method

CARS-METHOD

Credibility	Accuracy	Reasonableness	Support
To provide the best	The material applied	The sources need to	Documented supply,
evidential material	as empirical data must	have an objective and	listed sources and
with relevance for the	be updated and	reasonable way of	available
thesis the source must	contemporary to	approaching the theme	corroboration is
come from a	secure the most	of the thesis. By using	essential to triangulate
trustworthy author,	applicable outcome of	reports and articles	the data, wherefore the
newspaper, university	the thesis.	created by humans, the	source must provide
or similar.		reasonableness exists	evidence of origin.
		within the reality the	
		sources create because	
		of the authors'	
		understanding of the	
		world.	

Table 1 Source: Own design

By using the CARS-Method with the criteria stated in table 1, the aim is to secure that both Chinese and Western points of view will be included in the thesis. This approach is chosen to ensure and support the validity of the thesis by including a widespread of data. Thereby, the thesis seeks the most neutral outcome in the investigation of the case in order to avoid a biased result. Since the weakness of the method is the big amounts of data, the points addressed in table 1 will be used as a guideline when applying data throughout the thesis.

2.4.2 Interviews

The purpose of conducting interviews is to obtain knowledge that is considered necessary in the process of understanding the details and complexity of a case. Furthermore, the thesis seeks to elaborate on China's foreign policy and how the bilateral Sino-Danish relation influences the cooperation in RE. This knowledge is considered difficult to achieve exclusively from existing documents because it provides no possibility of elaborating on questions. Thus, the interviews are

included. By conducting qualitative research interviews (Kvale 2001: 40), the interviewees will be able to express what they find important in relation to the case put forward by the interviewer, and thereby the process of understanding the case can be elaborated as desired. According to Steiner Kvale, the purpose of qualitative research interviews is "[...] to collect descriptions of the interviewed persons life world focusing on interpretations of the purposefulness in the described phenomenon" (Kvale 2001: 41). Thereby, the conduction of qualitative research interviews can support the process of understanding the complexity of the case. In the thesis, the aim with conducting the research interviews is to obtain new knowledge and aspects given by persons, who may be considered experts in the field of RE and the bilateral Sino-Danish relation. By including their understanding of the situation in China and how the national interest affect the interest in RE, the objective of the discussion is to include the perspectives of how people involved in the cooperation understand it. This allows the thesis to include points from the experts in the discussion with the aim to create an understanding of how our *life world* can affect the way we understand a certain situation, in this case the cooperation in RE between Denmark and China.

2.4.3 Selection of interviewees

The purpose of the qualitative research interview is to understand the *life world* of the persons involved in the bilateral Sino-Danish relation, and in general, understand China's national interest in RE and how the cooperation between the two countries is affected by both China's and Denmark's incitements and national interest. To gain access to experts in this field, contact was made to several institutions. Since CNREC can be considered to be a concrete result of the Sino-Danish cooperation, contact to the center and interview with Fan Lijuan, Head of International and Regional Cooperation Department at CNREC, was established. She is recognized for her participation in four mayor international projects in RE, i.e. China Greenlights Programme, China Renewable Energy Scale-up Programme, China-Denmark Provincial CDM Capacity Building Project, and China-Denmark Renewable Development Programme (CNREC 2015).

To cover the Danish perspective of cooperating with Denmark, contact to the Danish Embassy in Beijing was established and resulted in an interview with Thomas Shapiro-Bengtsen, the energy attaché counselor at the royal Danish Embassy in Beijing. He has an educational background in economics and experience from the Centre for Climate and Energy Economics at the Danish Energy Agency (Danish Energy Agency 2015: B).

_

¹ Translated by author, original quote: "Formålet med det kvalitative forskningsinterview er at indhente beskrivelser af den interviewedes livsverden med henblik på fortolkninger af meningen med de beskrevne fænomener" (Kvale 2001, 41).

To gain access to a general understanding of China and RE, a third interview with professor Zhang Xiliang² is included in the thesis. Professor Zhang is Excusive Director of the Institute of Energy, Environment and Economy at Tsinghua University Beijing and has a Ph.D. in Management Science and Engineering and research interests within "energy technology innovations, integrated assessment of energy and climate policies, renewable energy, and automotive energy" (Entracte 2016) Moreover, he was co-leader of the expert group for drafting the China Renewable Energy Law from 2004-2005 and he holds a position as secretary general for the New Energy Committee of China Energy Research Society and vice chair of China Renewable Energy Industry Association (Ibid).

2.4.4 Interview guide

The interviews will be conducted based on semi-structured interviews (Kvale 2001). To approach the understanding of the case in a wider respect, the interview guide and the interviews will reflect the work that lays the foundation for the interviews including the theory and the structure of the empirical data. This approach is chosen to gain insight into the opinions and knowledge of the interviewed persons from their own perspective. If a more structured approach had been taken in the process of conducting the interviews it could have resulted in the respondent only giving answers to limited questions. Semi-structured interviews also allow for the researcher to explore unforeseen topics or subjects presented by the interviewed persons. Since the aim is to obtain knowledge from the respondents and what they find important in relation to the case and thereby the process of understanding, the case can be elaborated. During the interview the interviewer will pay attention to the relevance of the context of the conversation to secure that it remains within the interest of the research (Ibid). The interview guide is attached as Appendix 1 and the transcription of the interviews in Appendix 2 – A, B, C (Comments from Thomas Shapiro-Bengtsen).

2.5 Theoretical Framework

To investigate the present case study, representative theories in the field of international relations will be applied. By approaching the case of the thesis with realism and social constructivism as theories the aim is to conduct an analysis based on different perspectives on how the world system is created and functions in both the objective reality and socially constructed reality as presented in 2.1. Within realism, the thought that "the national interest is the highest priority interest of the country. If the international interest and national interest conflict a country must protect its

² Contact established by A-supervisor Hao Min.

national interest by sacrificing international interest" (Yan 2003: 25) can help in the process of understanding the objective reality with a realist's view. As a contrast, the understanding of the socially constructed reality can be applied through social constructivism explaining how "identities, interest and practices of the actors of world politics, how these actors unwittingly or purposefully reproduce these structures, and how human action is responsible for both stability and change in world affairs." (Barnett 2014: 155). By using these theories as the background to resemble the empirical data, a frame of the investigation is provided and the case study research is limited to supply results here within. This means that using other theories or using the theories in a different way would potentially result in a different conclusion, which is considered a limitation of the reliability of the thesis.

2.6 Structure of the analysis

The figure presents the structure of the analysis of the thesis.

Figure 3: Structure of the analysis

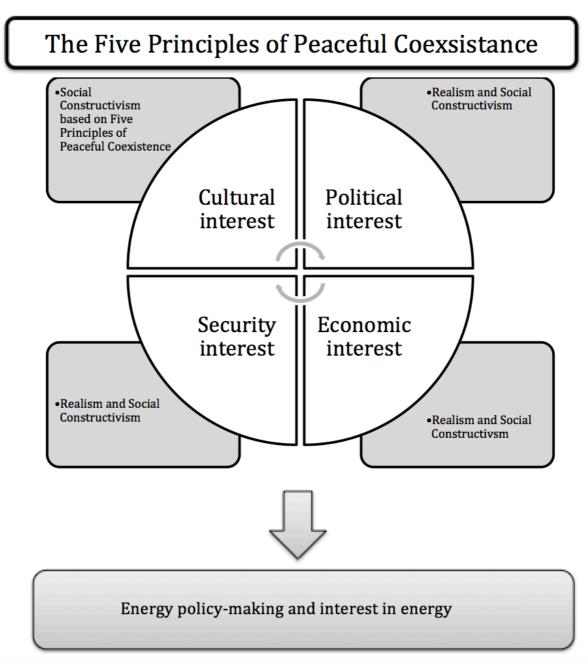


Figure 3 Source: Own design

The structure of the analysis will be as displayed in the figure above. With base in the Five Principles of Peaceful Coexistence, the analysis will consist of four-part analyses where realism and social constructivism will be applied. The analyses of the cultural, political, economic, and security interest are all connected, where one part-analysis leads to the next since one interest cannot be

analyzed alone without touching upon one of the other interests, as displayed with the arrows. All of the four part-analyses will lead to a part-conclusion of how different interests affect the policy-making and interest in energy in the bilateral Sino-Danish relation.

2.7 Structure of the discussion

As displayed in the figure presenting the structure of the discussion, this part of the thesis will contain the results of the analysis along with new perspectives.

Figure 4: Structure of the discussion

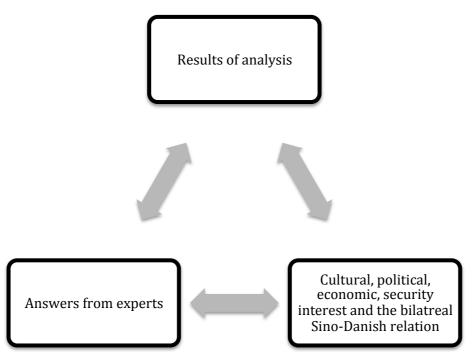


Figure 4 Source: Own design

Spring 2016 Sissel Mai Ødegaard

2.8 Structure of the conclusion

The following figure displays how the result of the thesis in this context is a result of the complexity in choices of method, data, theories, etc.

Figure 5: Structure of conclusion

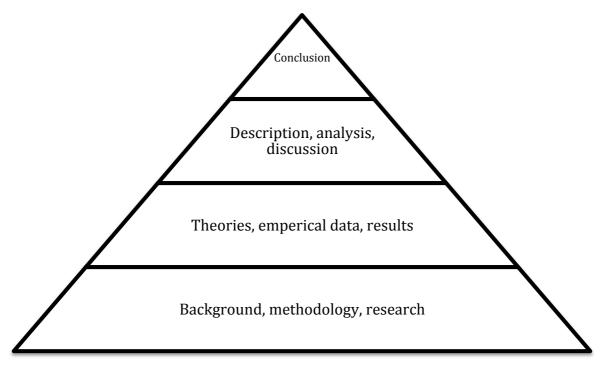


Figure 5 Source: Own design

2.9 Limitations

The topic of the thesis is the principal limitation since the energy transition and development in China is a very complex issue, and by limiting the study to focus on the aspect of the bilateral Sino-Danish relation and the national interest, a lot of potentially relevant material and knowledge is excluded. Further, since the literacy level required to use sources in Chinese is limited for the researcher, this can limit the research by disregarding any potential relevant data in Chinese. The outcome of the thesis could have a different result if data was not only based on English, Danish or translated material. Due to the fact that the thesis is based on a widespread of data as described in 2.4 and 2.4.1, the CARS-method is included to apply a common set of restrictions in the selection of data to ensure the validity of the thesis. This again could lead to a different result if another method for choosing data is applied.

The interviews further create some limitations; since Thomas Shapio-Bengtson, because of his position, could not allow the interview to be recorded, his answers are limited to written answers handed-in following the conduction of the interview. This limit of access to direct quotes is adopted

as a limitation since the answers reveal a more reflective and to-the-point mind-set than the face-to-face interview actually presented.

3.0 Contextual background

The following chapter has the aim of giving the reader general background information about the case of Sino-Danish relation with a focus on energy. The introduction and the acquiring of an understanding, the foundation of the thesis, are considered necessary to give basic information before proceeding.

3.1 Overview of Denmark

The Kingdom of Denmark is located in the Scandinavian/Nordic region of Europe and has a total area of 43,000 square kilometers, not including Greenland and the Faroe Islands, and with a population of 5.7 million.

Since 1909, the democratic state Denmark has had no single majority in Parliament, basing the Danish politics on consensus politics in a multi-party structure where several parties are represented in the Parliament (Denmark 2015). The high level of development characterizes the country, and it is one of the five countries living up to granting 0.7 percent of GNI to development assistance to aid other countries as set forth by the UN (Ibid). Further, Denmark is recognized for its military peacekeeping missions. As a country, Denmark rank as number one in the Transparency International corruption perception index in 2015 (Transparency International 2015).

The Danish economy is based on an open-market policy that encourages trade and investments. With a GDP of \$342.4 billion the country is characterized as a high-income country (The World Bank 2014). Further, Denmark is a member of EU and provides social balance and equality along with a universal welfare service including: "free healthcare, free education, high minimum wages and high levels of employment" (Denmark 2015: 15).

The Danish economy is leading the transition towards obtaining a green growth economy as formulated in the agenda of The Danish Energy Model (Denmark 2015). The history and tradition of this energy policy goes back to the 1973 oil crisis and as a result Denmark's energy system has gone through a transition towards being a green nation. The Danish Model of Energy has allowed Denmark to brand itself as a green nation because the policy has proven that high standards of living combined with economic growth is possible while reducing the dependency of fossil fuels and protecting the environment (Danish Energy Agency 2015). Denmark has succeeded in reducing

the greenhouse gas emissions since 1990 by more than 30 percent and the country "has the highest contribution of non-hydro renewables in any electricity system worldwide: 46 pct. in 2013." (Ibid: 20). Knowledge of RE has also allowed Denmark to experience an increasing export of green products and services, and in 2013 the country exported a total worth of DKK165 billion distributed by RE and energy efficiency, including the creation of 58,000 workplaces in a total of 1500 companies (Dansk Energi 2015). Denmark is one of the leading nations in export of technology, sustainable solutions, and knowledge concerning energy, thus being a significant part of Denmark's cooperation with the rest of the world. Europe, Brazil, Mexico, Russia, India, South Africa and China are all included as countries to whom Denmark export green energy technology and sustainable solutions (State of Green 2015).

3.2 Overview of China

China holds a population of around 1.3 billion and an area of 9.6 million square kilometers with great variation in climate, surface, and vegetation (Li 2015). Sharing borders with 14 countries and with a 14,500-kilometer coastline (Ibid), the protection of the sovereignty and territorial integrity demands a well-formulated and effective foreign policy. Although China is a large country, one of the main issues affecting both the economic and security interest and calls for political action is the lack of natural resources within China. In the graph below, the energy mix of China is included to show how the mix of energy is still relying on coal resources by 2015. This calls for development; import and good relations to the international community to ensure the future demand of energy can be developed by other sources of energy, excluding coal, thus, embracing climate protection.

Coal remains dominant in China's energy mix Despite expansions into clean energy, coal will still take up 63% of China's energy use in 2015 of total energy source 70 60 50 40 30 20 10 Wind/Solar/ Coal Nuclear/ Natural gas Oil & others REUTERS Sources: National Energy Administration, National Bureau of Statistics, official reports Reuters graphic/Christine Chan

Figure 6: Reuters Coal remains dominant in China's energy mix

Figure 6 Source: Reuters 2010

The lack of natural resources within China has put the country in a position where the import of energy supply has become a question of great matter. China wants to implement multiple energy resources including wind, solar, nuclear, tidal wave, water and other conventional sources of energy (Liu 2015). While the third stage in the energy development is ongoing, the second stage, i.e. going from coal supply to oil supply, has put China in a situation of dependency on import of oil. The energy supply is of great matter in China's interaction with foreign countries because the dependency of oil within the country is making the import crucial for further development. Therefore, the Strait of Malacca is necessary to include in understanding the importance of energy supply. The map below shows the import of oil from foreign countries to China.

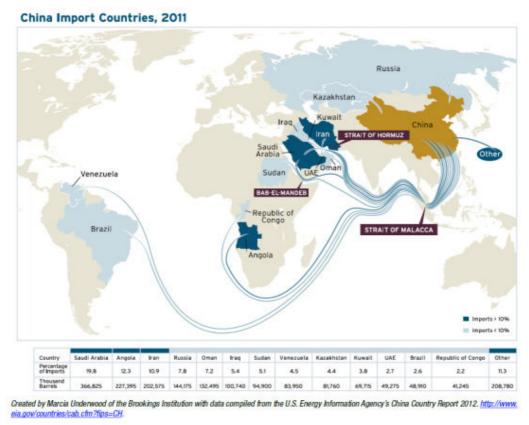


Figure 7: China Import Countries 2011

Figure 7 Source: Liu 2015b, 32

To protect the economic interest and secure further development, China is relying on the energy supply going through the Strait of Malacca. This makes the point very important in China's policy in trading and dealing with strategic partners, to maintain a stable import of oil to obtain the needed energy supply. The access to energy is vulnerable due to the possibility of conflicts in the area and this calls for action to protect the national interest in energy. The Renewable Energy Law from 2006 (Gao 2014) was implemented to start meeting the many challenges with the energy usage in China towards a more GE based energy supply. Additionally, the Energy Development Strategy Action Plan from November 2014 demonstrates how GOC is still working towards this goal (Tiezzi 2014). As the following figure displays, the policy-making in China's energy is a complex system making the implementation of decisions concerning energy a multipart process. Though, RE and GE do not account for more than fractions of the energy supply in China, the implementation of ERI, CNREC, and think tanks is combined with many decisions favoring RE and GE, which displays how GOC is more positive when it comes to non-fossil fuels as source of energy.

On figure 8, presented in the final RED report by Jørgen Delman, professor at Copenhagen University, the most important actors of the policy-making in energy are:

Figure 8: China's policy-making in energy.

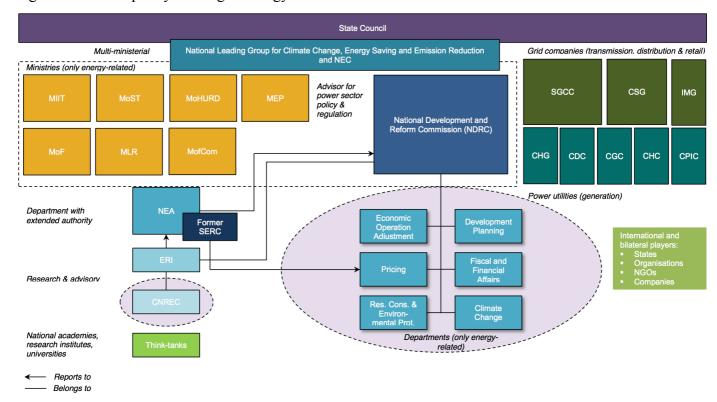


Figure 8 Source: Delman 2014.

List of Acronyms Utilized in Figure X:

- NEC: National Energy Commission
- SGCC: State Grid Corporation of China
- CSG: China Southern Power Grid Cooperation
- IMG: Inner Mongolia Power Grid Cooperation
- CHG: China Huaneng Group
- CDC: China Datang Co.
- CGC: China Guadian Co.
- CHC: China Huadian Co.
- CPIC: China Power Investment Co.
- MIIT: Ministry of Industry and Information Technology

- MoST: Ministry of Science and Technology
- MoHURD: Ministry of Housing, Urban and Rural Development
- MEP: Ministry of Environmental-al Protection
- MoF: Ministry of Finance
- MLR: Ministry of Land and Resources
- MofCom: Ministry of Commerce
- NEA: National Energy Administration
- ERI: Energy Research Institute
- CNREC: China National Renewable Energy Centre

(Delman 2014)

Additionally, the before mentioned rough version of the 13th FYP (2016-2020) released in November 2015, with the English translation "Redefining China's development paradigm under the New Normal" – and under the point of the environmental protection, promotes: "encouraging low-carbon production and "green" lifestyle, raising energy efficiency and reducing pollution"" (Hong 2015). The policy concerning the environment included in the plan support the above; that GOC is working towards a more sustainable development in the energy mix.

3.3 Sino-Danish Relation and energy cooperation

Former Prime Minister Anders Fogh Rasmussen signed the bilateral Sino-Danish strategic partnership in 2008. The agreement holds the title 'Comprehensive Strategic Partnership' and outlines the areas of focus, including enhancement of political dialog and state visits, climate, energy and environment, research and innovation as well as education. The importance of meeting the challenges of the climate change is underlined in the agreement (Danmark I Kina 2015).

The Sino-Danish cooperation in energy can be dated back to 2005, where the first agreement of increase in share of wind energy was signed. The cooperation developed from 2006-2009 where the WED and RED programme was established promoting RE as part of the cooperation between Denmark and China. Essential to the RED program was the CNREC, along with other projects promoting energy development and two projects in the Northeast of China focusing on demonstration of energy usage (Lauritsen 2014). The RED programme was established to create a sustainable organization beneficial for both China and Denmark (Delman 2014). The final goal of establishing the programme was to create a centre to advise the policy-making on RE policy in China, allowing knowledge flow from recommendations to the final stage of decision-making. Officially, the centre was introduced in February 2012 as a new part of the existing ERI that forms part of the NDRC, which is concerned with being the main actor in policy-making in China. The idea of a Sino-Danish centre focusing on energy started as a discussion between the NEA and the Danish Government with the aim of creating a relation to promote and prepare the strategies of "wind, biomass and solar energy" (Ibid: 15). Further, the aim was to create an institutional as well as business partnership promoting development of RE technologies and collaborative projects "cofounded by the Danish government" (Ibid: 15). The vision with the centre was to create a think tank and experience centre to support the on-going and rapid development towards RE in China's energy system, supported by The Danish Energy Agency with expert advise and advancement in China's energy sector with continuing arrangement. The formulation of the vision included: "CNREC should be a non-profit organization with high reputation nationally and internationally, and it

should provide innovative solutions to overcome the barriers and challenges for RE development in *China*. "(Ibid: 15).

This made the Sino-Danish relationship and cooperation in energy enter a new stage of promoting a cross-national cooperation, allowing Denmark to promote the knowledge about energy technology and establish a mutual beneficial cooperation supporting the energy policy-making in China in a professional manner of combined research on, recommendations, and ideas for environmental protection (Ibid). Moreover, China's authorities are looking towards Denmark and the Danish experience to "reduce curtailment of wind power, and working closely with the Danish authorities to achieve a general transformation of the Chinese Energy sector in a green and sustainable direction." (State of Green 2015:11). On April 24, 2014 the Danish ambassador Arne Friis Petersen signed a new 'memorandum of understanding' between the Danish Agency of Energy and China's National Energy Conservation Center in the presence of President Xi Jinping and Her Majesty Queen Margrethe II (Energistyrelsen 2016). The state visit and the Sino-Danish bilateral relation were underlined by signing because it was representative not only of the cooperation between Denmark and China but also of how sustainable growth and RE efficiency could be developed as a product of the cooperation. Also, the development of the urban areas of China is of interest in the cooperation as the state visit also included "the Danish Ministry of Climate, Energy and Building extended two existing cooperation agreements with China's National Energy Agency and the Ministry of Housing and Urban-Rural Development that focus on sustainable energy and green urban development" (Ibid). The cooperation on energy and trade between the two countries is considered to be an example of the impressive development in the bilateral Sino-Danish relation since the first state visit in 1979 (Ibid).

4.0 Description

The following chapter includes a brief introduction to foreign policy and national interest to clarify the important terms mentioned throughout the thesis. The second part of the chapter elaborates briefly on the terms used in China's national interest and foreign policy.

4.1 Foreign Policy and National Interest

To discuss foreign policy and national interest, a common understanding of the term must be presented to secure the consensus of the discussion and analysis. Based on this, the thesis understands foreign policy as a rationalized formulation of "how a country will act with respect to other countries politically, economically, socially (culture), and military (security)" (Li 2015). When foreign policy is discussed, the national interest is a general used term, and it is essential to understand the strategic rational in international relations and how politics and policy-making are affected by such (Wang 2011). Governments are founded to protect and secure development of the possibilities for the individuals of any given nation, and the foreign policies are, to a large extend, instituted by the national interest of a nation. This makes international relations a question of the relation between national interests, thus, 'a relation of interest' (Li 2015). The substance of and the application of foreign policy is determined in the national interest, making the understanding of governmental action a question of understanding the national interest. Thereby, the common understanding of government action and non-action in both national and international scenarios is accounted for by the national interest (Ibid: 21). This makes it possible to approach any national interest with a theoretical perspective. The moral idealism proposes that all nations will be prepared to cooperate and reach agreements of conduct. Since this is not always the case, the realism approach is more credible when looking at national interest and foreign policy because the actions of any given nation will always be strongly affected by own interests and national security as the core of state interest (Ibid: 25). The national interest can further be divided into classifications of interest namely the political, security, economic and cultural interest (Ibid: 27). The political interest focuses on the state sovereignty, political independence and international status. Through political interest and policy-making a nation's government can provide the needed political activity in securing the status of a nation (Ibid: 27). The security interest is the foundation of the other national interests since the other interests can only be reached if the national security is to a certain degree secured through interest in military and territorial superiority in favour of maritime and land security. This makes the security interest of a nation one of the most essential in the foreign policy (Ibid: 27). The economic interest is accounted for as the most constant national interest because the

pursuit of economic stability and development is essential for any nation. Also it is the most constant and important interest because it secures the foundation for the other national interests by securing the citizens' standard of living, the development and growth of the country (making trade with other nations possible), and enhances the international status. Once a country's survival is reasonably secured, the economic interest is pursued to secure further development (Ibid: 28). The cultural interest provides the transcendent aspects of the national interests because it focuses on the softer values within a nation, though still with great importance. The protection and promotion of a nation's values, beliefs, religion, culture, history, and system of governance becomes subject of great importance, since it secures the fundament of a common best interest of a nation (Ibid: 27). The four points of national interests vary over time, and the importance of them is affected by a time span, including the constant and variable interests (Ibid: 29). Where the constant interests are a perpetual and stable, focusing on the territorial integrity and national independence as well as state sovereignty and pursuing economic development, the variable interests can be divided into three variables. The long-term focuses on the relatively stable interest in securing modernization, ecological balance and having a military corresponding to the international community. The medium term represents the relatively fixed interest such as the advancing militarily or scientific technology and the striving for economic benefit. The short-term is represented in the interest that changes and is more temporal such as adjusting tariffs, taking commercial loans and showing particular interest in a time-corresponding issue (Ibid: 29). Further, the foreign policy is based on a classification of importance being the "the core/vital, the general and the less important interest" (Ibid: 36). The core/vital issues are the most important of a nation, and this interest is the one that cannot be compromised without a nation fighting back to prevent war. This includes the safeguarding of the national survival and existence as free and secure nation. The core/vital is further divided into external and internal focus, where the first represent foreign threats and the second represents securing the education, reduction of poverty and environment within the nation. The general interest focuses on political issues, human rights and sustainable world order securing the national interest generally. Last, the less important is consisting of the cultural interest of a nation as well as other less important issues securing national interest (Ibid: 36).

To sum up, the foreign policy consists of four main interests namely the political, economic, security and cultural interest. These are important elements to understand both individually and as a total to understand how any given nation is outlining the foreign policy according to the national interest.

4.2 China External Cooperation and Energy Interest

To understand the different aspects of China's interactions with Denmark, a paragraph is included to present a brief overview of China's external cooperation and energy interest.

As described in the introduction, China's foreign policy is based on the Five Principles of Peaceful Coexistence relating to the following (FMPRC 2016):

- 1. Mutual respect for each other's territorial integrity and sovereignty
- 2. Mutual non-aggression
- 3. Mutual non-interference in each other's internal affairs
- 4. Equality and cooperation for mutual benefit
- 5. Peaceful co-existence.

China faces plenty of issues consisting in cultural, political, economy and security predicaments making the ambitions of the foreign policy essential to secure the national interest and make it possible to act according to the Five Principles of Peaceful Coexistence.

The Five Principles of Peaceful Coexistence has formed the core of the foreign policy since 1954 and today they are still the backbone of the Chinese foreign policy. The importance of the now 60-year-old formulations of Zhou Enlai, China's first premier, are still of great importance in China's relations with the international society (Panda 2014). The interest in energy is strongly affected by the need for energy supply for the further development of China, affected not only by the national interest but also the Five Principles of Peaceful Coexistence. Moreover, the importance of understanding the need of good foreign relations in developing China's energy interest is strongly affected by how GOC succeed in handling foreign relations according to their own policy and national interest (FMPRC 2016).

5.0 Theory

In the following chapter, two theories of world politics will be explained and the reason for choosing these in the process of answering the problem statement will be elaborated. The theories are realism and social constructivism. The chapter begins by presenting the theory of realism and thereafter the theory of social constructivism will be undertaken.

5.1 Realism

To be able to approach the problem statement of the thesis realism is chosen as it represents the most authoritative explanation of states' action in an international system with globalizing world politics (Dunne and Schmidt 2014: 99). Variations of realism exist, however, the thesis seeks to study the national interest and therefore the essential parts being statism, survival and self-help contain the general idea that realism is desired to answer the problem statement using a general theoretical angle (Ibid: 101).

Realism has a long history and has always been one of the dominant theories in world politics. In its modern form, it was first approached as a contrast to the then dominating idealism during the First World War and prevailed with the outbreak of the Second World War. The theory challenged idealism by providing a critique claiming that idealism ignored "the role of power, overestimated the degree to which nation-states shared a set of common interest, and were overly optimistic that humankind could overcome the scourge of war" (Ibid: 100). Realism provided the approach to foreign policy that it should be based on "interest rather than ideology, to seek peace through strength, and to recognize that great states can coexist... "(Ibid: 100). At the same time, the theory provided a skeptic view on universal moral principles and warned state leaders to keep eye on selfinterest. The theory consists of the three mentioned key points being statism, survival and self-help where the sovereign state is the main actor in international politics. According to realism, statism is the idea of a legitimate state representing the shared interest of the people and making authority within the borders possible. The state sovereignty indicates the existence of an independent political community with own judicial authority. Further, the concept of anarchy in international politics is, according to a realist, a structure where all states see themselves as the highest authority due to the independency of each sovereign state. This means all states are to perpetuate their own existence and that the stronger states stand a better chance of surviving (Ibid: 100). This leads to the second point, survival, where the role of power is essential, hence realists believe power to be crucial in order to obtain the core national interest of surviving. By providing national interest the states can

maintain and extend their power and thereby survival. The third point, self-help, refers to a state's ability to ensure its own well-being and survival as a sovereign state. Therefore, a state should be able to secure itself in manners of military in order to secure the balance of power among the other nation states in the international system. By pursuing the balance of power in the international system no state would, according to realism, be dominated by another state (Ibid: 108). Furthermore, realists believe that "the national interest is the highest priority interest of the country. If the international interest and national interest conflict a country must protect its national interest by sacrificing international interest" (Yan 2003: 25). This creates the international system where the states will cooperate with each other at any time. However, this does not mean that the states have similar interests. Rather, the states' interests will constantly be conflicting (Mearsheimer 2002: 25). Different views on the term 'power' has been developed by realists, such as Hans Morgenthau, suggesting that states always crave more power, creating a scenario of states continually wanting to expand their share of world power. On the contrary, Kenneth Waltz argues that the structure of the world system will lead states to compete for power. Thus, states should not struggle for expanding power. According to Waltz, the states should rather try to control the amount of power each state already has (Mearsheimer 2002: 25). In addition, the realists argue that the states continue to be independent units in the international and globalized world.

Additionally, realists approach international institutions as a reflection of the distributed power among world nations. Realism believe institutions such as UN, NATO, S etc. are a result of self-interest among great powers without any direct effect on individual state behavior when it comes to securing own national interest. The institutions can therefore not be accounted for as important elements in maintaining world peace (Mearsheimer 1995: 7).

In this thesis, realism provides a theoretical approach towards understanding China's national interest. The theory makes it possible to research in the field of national interests and explain the political, economic and security interests of China when interacting with Denmark with a realist approach. With the case-study of Denmark, the theory makes it possible to explain how the concept of power and obtaining national security is a product of the national interest - and how the interest in Denmark specifically can help China to obtain more power according to the explanation by Morgenthau "[...] states are hardwired with an insatiable lust for power, which causes them to seek to maximize their share of world power." (Mearsheimer 2002: 25). By providing an idea of how states interact the theory makes it possible to view the bilateral Sino-Danish relation as a product of

national interest of both Denmark and China. With realism as a theoretical approach the analysis of the thesis makes it possible to answer the problem statement and sub questions by finding indications to prove that China's national interests in political, economic, and security manners are affected by a common goal to develop China domestically and thereby securing the role of the nation in the international system.

5.2 Social Constructivism

In the process of answering the problem statement and sub questions of the thesis, social constructivism is applied as the second theory. The theory approaches how the world is made and remade within the actions in international politics and explores how the structures of the world contains and establishes the principle of "identities, interest and practices of the actors of world politics, how these actors unwittingly or purposefully reproduce these structures, and how human action is responsible for both stability and change in world affairs." (Barnett 2014: 155).

Social constructivism brought alternative ways of thinking into International Relations because the theory explains the transnational movements, importance of non-state actors, and new ways of approaching the concept of power (Wendt 1999) Constructivism is a rather new theory, thus, it has received recognition as one of the leading theories for its capability of explaining the global politics and the global change. It challenged the materialism and individualism of neo-realist and neoliberalist in the 1980's (Barnett 2014: 156f.) by providing two alternative key factors of the theoretical approach to the international system. First, it demonstrated that the perception of "a world without norms and ideas was not only nonsensical, but also that their inclusion was important for understanding the behavior of states and non-state actors" could be used to understand how the world works (Ibid: 157). Second, the theory provided an explanation of the ending of the Cold War since it did not end in clash. The theory had the advantage of presenting an understanding of what had happened and created ground for understanding the organization of world politics with new ideas and impacts represented in neither neo-liberalism nor neo-realism. Constructivism presented awareness of the terms and the foundation of the new international order following the Cold War (Wendt 1999). Moreover, the theory succeeded in underlining that "alliance patterns, military intervention, arm racing, great power transformation [...] demonstrated how identity and norms shape state interest and must be incorporated to superior explanation." (Ibid: 157). Social constructivism is a social theory concerned with the conception of relations between negotiators and structures and provides a theoretical alternative of how states and

structures of international politics are in relation, and this has put the theory in relation to the rational choice. Social constructivism is therefore not substantive because it seeks to investigate the relation between "agents and structures" (Ibid: 157) and it is drawing on the critical and sociological reasons in demonstrating the effects of the common ideas and norms in world politics. There is plenty of variety in constructivism but they share a common idea that "constructivism is about human consciousness and its role in international life." (Ibid: 158). This means that the consciousness of humans leads to an understanding where thinking along the lines of constructivism somehow is the ideal or holistic. By questioning a world defined by material and ideational forces as a product of beliefs and in terms of states, the idealism in constructivism is expressed and defines the world as socially constructed. The social context of common and collective "knowledge, symbols, language and rules" without discarding the material existence but rather regards it as a result of "the meaning and construction of that material reality is dependent on ideas and interpretation." (Ibid: 158) is reflected in the way human beings think and act. In the international system of world politics, the theory explains that power is not objective but rather a result of the interaction among states and how they deal with different issues in the international community to secure the balance of power. Constructivism believes the world to be "irreducibly social and cannot be decomposed into the properties of already existing actors." (Ibid: 158) allowing holism/structuralism to be part of the theory and thereby makes it possible to analyze states; not only by accepting the agency and recognition of interaction as autonomous but also as results of interaction creating, reproducing and transforming already existing structures in the world (Ibid: 158). As the name indicates, social constructivism is a theory about how reality is a product of something socially constructed. Analyzing the society and world order thereby becomes possible since it comprehends individuals and states as a result of the socially constructed reality in which they exist. This stresses the idea of identity and social construction of interest as "[...] actors are produced and created by their cultural environment: nurture, not nature." (Ibid: 158). This is influenced by knowledge and the knowledge spread is fundamental in order to understand human behavior and actions of the states. Knowledge is the foundation of how individuals and states interpret the world they exist in, where symbols, rules, language, concepts, and categories structure the common background of knowledge making it possible for the individual to relate and make sense of the surrounding world.

This leads to social constructivism as a theory that titles the individual as a result of the socially constructed reality, and because they are based on social constructed knowledge, the concept of

social facts exists. Social facts can be qualified as "money, refugees, terrorism, human rights, and sovereignty" due to the fact they are all products of human thinking in social agreements (Ibid: 159). The social facts can then be discussed based on the individual thinking and changed based on the knowledge existing. We have determined that a rock is a rock and this common understanding is streamlined no matter the social constructed background. This changes when the determination of human rights and similar concepts are discussed, hence it depends on the individual thinking and thereby socially constructed background of the same.

Additionally, the concept of rules is necessary to include as social constructivism distinguishes between norms and rules that are then divided in regulative rules and constitutive rules.

Regulative rules represent the "existing activities" and specify how and why to follow rules and regulations of e.g. the United Nation in order to maintain the norms and regulations constructed in this regulative (Ibid. 159). The constitutive rules are then the creation of the very same, i.e. if the UN had never been created then the rules and regulative of the UN could not exist. If the UN had not been socially constructed the basis of constructing rules and norms would not be relevant, and this underlines the constructivist thought about institutionalization and how their importance is questionable according to how much actors in the international system grant and desire to change the rules and norms "that constitute state identity and interest" (Ibid: 159).

Throughout the thesis, social constructivism can be used to understand China in international relations and the interest in energy with the case study of Denmark. By recognizing the world as socially constructed, the theory makes it possible to "investigate global change and transformation." (Ibid: 166). The thesis aims at understanding how national interest affects the cooperation in RE in the Sino-Danish relation. The theory allows the thesis to see China as an international actor and how the structures of the world not only constrains but constitutes the "identities, interest and practices of the actors of world politics, how these actors unwittingly or purposefully reproduce these structures, and how human action is responsible for both stability and change in world affairs." (Ibid: 155). Thereby, the foreign policy can be seen as a product of something socially constructed, and this itself can claim the state as socially institutionalized. If this were not the case there would be no state and no national interest to analyze. The history and culture of any state affect the actions and interest and by looking at China's foreign policy, represented in the Five Principles of Peaceful Coexistence, with social constructivism, the frame of the analysis is given with the believe that the world is socially constructed and affect the actions of states according to the quote above.

6.0 Analysis

The following chapter will follow the structure presented in 2.6. The analyses aim at answering the problem statement "Why is the bilateral Sino-Danish cooperation in renewable energy affected by national interest?" with support from the sub-questions:

- *I.* How is China's interest in renewable energy in general affected by the national interests?
- *II.* What are the incitements for cooperating with Denmark in renewable energy?
- III. In what does the Danish interests in cooperating with China in renewable energy consist?

As explained, China's national interest is based on the Five Principles of Peaceful Coexistence since they constitute the foreign policy of China. In order to answer the problem statement, the national interest will in the following be separated in cultural, political, economic and security interests in the process of making policy on RE and how the bilateral Sino-Danish relation persuades these. The separation in different subjects aims at understanding the complexity and details by applying realism and social constructivism as theories in order to answer and conclude upon the problem statement. The chapter on cultural interest first of seeks to understand how China's cultural background affects the foreign policy and afterwards how this is affecting the bilateral Sino-Danish relation. Second, the political interest aims at understanding the political incitements behind the relation and how this is persuading the policy-making in renewable energy. Third, the importance of the economic interest is analyzed in order to rationalize the bilateral Sino-Danish relation. Fourth, the security interest is investigated to understand what motivations founded the relation in manners of national security both approached with the Danish and Chinese interest.

6.1 Cultural Interest –Identity Interest

The historical importance of the cultural interest can be connected directly to China's foreign policy and the Five Principles of Peaceful Coexistence; hence they can be seen as a product of human action - when approached with social constructivism. The Five Principles of Peaceful Coexistence substitutes an important aspect in understanding the problem statement and makes it possible to approach as a result of "identities, interest and practices of the actors of world politics, how these actors unwittingly or purposefully reproduce these structures, and how human action is responsible for both stability and change in world affairs" (Barnett 2014: 155). Additionally, the historical background of China's foreign policy can be linked to the goal of never returning to the 100 Years of Humiliation (Schiavenza 2013), which naturally is an outcome of ensuring that history is not repeated (Varin 2009). The historical background is therefore important in order to understand how

"Politics can be motivated by a nation's desire to avenge a former humiliating experience or to achieve a status where humiliation at the hands of foreign powers is no longer possible." (Varin 2009). GOC pursues China as a great nation state through their policies and with the points "mutual respect for each other's territorial integrity and sovereignty, mutual non-aggression, and mutual non-interference in each other's internal affairs" they have established goals of the foreign policy linking national interest and historical value. The historical quote by Lao Tse's Tao Te Ching, dating back to the Zhou-dynasty, can be used to explain how China's national identity and foreign policy is closely linked to the cultural background. The quote states that:

"A great state is like a low-lying, downward-flowing stream; it becomes the center to which tend all the small states under heaven ... Stillness may be considered a sort of abasement. Thus it is that a great state, by putting itself on a lower level than small states, wins them over and that small states, by showing their deference to a great state, win it over. For the great state, showing humility leads to gaining adherents. For the small states, it leads to procuring favor. A great state only wants to unite and nourish people; a small state only wants to be received by, and to serve, the other. Each gets what it desires, but the great state must learn to show deference." (Zhang 2013).

The importance of this quote, in connection to the two points of national interest mentioned above, is the cultural venue reflected in nowadays policy and the desire to create an cultural identity as a great state. In relation to social constructivism, this clearly reflects how GOC seeks to protect the national identity, which is an outcome of "[...] actors are produced and created by their cultural environment: nurture, not nature." (Barnett 2014: 158). In order to understand the background of the bilateral Sino-Danish relation the "equality and cooperation for mutual benefit and peaceful coexistence" must also be included, since they also can be approached with social constructivism as products of a policy, based on cultural values anchored with harmony as the core concept. At the UN Summit in 2005, former president Hu Jintao repeatedly spoke about the importance of UN in manners of peace in the world and China's interest with quotes such as

"[...] United Nation have also become the sure path towards lasting peace and universal security in the world." and "[...] United Nations has played an important

role and made enormous achievements in maintaining world peace, promoting common development and advancing human progress thanks to the concerted efforts of its members to facilitate is various endeavors" (Hu 2005).

Further, in his speech he stated that the goals of China is to pursue the

"[...] spirit of inclusiveness to build a harmonious world together [...]", "[...] make international relations more democratic and jointly build towards a harmonious world where all civilizations coexist and accommodate each other." and "The Chinese nation loves peace. China's development, instead of hurting or threatening anyone, can only serve peace, stability and common prosperity in the world" (Hu 2005).

This can be summed up to explain China's modern diplomacy, and the creation of an image, displaying China as a peaceful nation state without intentions of interfering in others affairs, is reflected in the foreign policy with the Five Principles of Peaceful Coexistence. Further, that GOC seeks an identity interest reflecting the cultural values. This supports that China can be approached with constructivism, hence the common idea "is about human consciousness and its role in international life." (Ibid: 158). The cultural relevance in China's foreign policy can however also be questioned with realism as the approach making the national interest of China the core towards the interacting with the world society. If the same quotes by Hu Jintao are put into the context of realism the image of China as a peaceful nation raises questions, especially when looking at issues such as energy. In the same speech Jintao also stated that "We should step up worldwide energy dialogue and cooperation, jointly maintain energy security and energy market stability, and ensure a well-supplied, secure, cost- effective and clean energy environment conducive to global economic growth." (Hu 2005). Never mind that China in 2005 was credited as the "worlds biggest polluter" (Thomson 2015). The contradiction between the content of the former president's speech and the reality of facts clearly underlining the realist argument that "the national interest is the highest priority interest of the country. If the international interest and national interest conflict a country must protect its national interest by sacrificing international interest" (Yan 2003: 24). In this case China's national interest comes before the international interest since China desires national development in direct contradiction with the desire of the international society, where China's

status as the biggest polluter called for an appeal of reducing the pollution in interest of the global climate (Thomson 2015). Moreover, the relevance of the importance of a speech is a UN context can be questioned since realism does not perceive of institutions as relevant when approaching the structure of the international system where all states can be expected to act according to own interests (Yan 2003: 25). This allows the question of why Hu Jintao spoke as he did in an institutional context in 2005, both with the quotes about peace and climate as rendered above. When approaching the foreign policy of China with realism, the answer would consist within the formulation of the Five Principles of Peaceful Coexistence, which contain the five points: 1) Mutual respect for each other's territorial integrity and sovereignty, 2) Mutual non-aggression, 3) Mutual non-interference in each other's internal affairs, 4) Equality and cooperation for mutual benefit, and 5) Peaceful co-existence all represent a product of history and culture allowing China to pursue own national interest and excuse the missing willingness to act upon international issues and take responsibility. Because it is not part of China's national interest to interfere or be aggressive etc. At the latest 2015 UN climate conference COP21, President Xi Jinping spoke about China's development in relation to energy. He connected the relation between China and nature by stating:

"All things live in harmony and grow with nourishments." Chinese culture values harmony between man and nature and respects nature. Going forward, ecological endeavors will feature prominently in China's 13th Five-Year Plan. China will work hard to implement the vision of innovative, coordinated, green, open and inclusive development" (Xi 2015).

In the speech he further included the goals of China's energy policy and how CO2 emissions should peak in 2030 and the same year also be reduced to 60-65 % of the level from 2005 (Ibid). In addition, he pointed out the importance of China's role in the South-South cooperation Climate Fund and promoted that the installed capacity of RE in China already accounts for 24% of the worlds total (Ibid). From a social constructivist perspective again the creation of good intentions and cultural interest shows the significance of how Chinese leaders are reproducing the image of China. A nation fighting against climate change and by all means do so with the best intentions - because the culture and importance of harmony constitutes China's values. Although COP21 was hailed as "historic, durable and ambitious" (Harvey 2015), the role of China's contribution was ambiguously interpreted. While being ranked as a nation of "medium with inadequate carbon

intensity target" (CAT 2015) efforts by the CAT, questions were also raised about whether China's future is clean or not (Koschyk 2015). To answer this question the comment from Krishnan Pallassana, the director of The Climate Group (Coca 2015), should be included since it also puts perspective on China's actions according to realism indication:

"[...] states are hardwired with an insatiable lust for power, which causes them to seek to maximize their share of world power." (Mearsheimer 2002: 25). Mr. Pallassana alleged that "The benefits for business are threefold: greater energy security, affordable supplies, and recognized leadership internationally" (Coca 2015).

In the aspect of how the cultural interest affect policy-making in energy, this argument can be used. Additionally, in relation to the desire of never returning to the 100 Years of Humiliation, China's actions at COP21 and the implementation of RE must therefore also be understood in a cultural aspect since it is the interest of China's leaders to foster the national identity and restore Chinese culture. The cultural issues can be considered as a "less important" interest (Li 2015) for China, but still with great importance when trying to understand China's actions and interest behind.

In the bilateral Sino-Danish relation, the incitement of cooperating with Denmark and the Danish national interest can be seen as a reflection of the cultural interest of both Denmark and China. Denmark, as a small nation in size, seeks to secure other Danish interest (political, economic and security), and the cooperation with China constitutes an understanding of Denmark as a small country with much to offer. With the establishment of the Danish Cultural Institute in Beijing 2005 (Denmark-China 2008) the objective of "creating synergy with Danish enterprises that can reinforce the image of Denmark as an innovative and creative nation, where business community and cultural actors are able to enrich each other both financially and substantively" (Ibid) underlined the cultural importance in the promotion of Denmark. In renewable energy, as explained in 3.1, Denmark brands themselves as the 'State of Green' and in conjunction with the TI rank as the number one country, cooperation with Denmark allows reasonable motivations of interest for China. Whilst Denmark seeks to maintain a secure foundation for other national interest by using the culture interest as the approach towards the Asian giant, China also has an agenda. Presumably, Denmark can be approach as an attractive partner in cooperation due to the TI ranking and the Danish Experience³. This not only provide good incitements for China to cooperate with Denmark

³ Explained in 1.5.

in RE but also testifies to how both nations use the cultural interest in pursuing other national interests. Interpreting this from the theoretical perspective of first social constructivism, where the bilateral Sino-relation can be seen as a mutually beneficial deal between two countries in order to develop and protect the nature, which finally is in the interest of the complete international society. The relation also signifies that power is not objective but rather a result of the interaction among states and how they deal with different issues in the international community to secure the balance of power and, in this case, secure other national interest by introducing the cultural interest as a common ground socially constructed by the very same interests. When approached with realism the whole idea about a common interest can be questioned since the relation from a Chinese perspective is about obtaining more power and has the Chinese international leadership recognition as an object of interest. From the Danish perspective China not only provides a possibility of promoting the Danish Experience but having China as a target market for the export of energy technology can also be directly linked to the economic interest. This can support the realist argument of "country must protect its national interest by sacrificing international interest" (Yan 2003: 24), thus both parties of the bilateral Sino-Danish relation appear to exploit the cultural interest as a strategic choice towards securing the relation and thereby own national interest.

In order to sum up, the cultural interest can be approached as a modern day-diplomacy in the pursuit of securing national interest in general. Through the objectives of the foreign policy carried out by both Denmark and China, the relation can be seen as a product of well-formulated agenda articulated as common cultural exchange. China's policy-making in energy is affected by the pursuance of power and the cultural interest. If looked upon using social constructivism, the bilateral Sino-Danish relation is a result of the common interest where the culture aspects are used to promote Denmark. Moreover, it is essential to understand the relation from the Chinese perspective due to the importance of the history and culture values behind the Five Principles of Peaceful Coexistence. Both the Chinese and Danish objective become a result of a socially constructed worldview where the interaction between the nations are with the common goal of protection nature though establishment of RE implementation and knowledge exchange for the benefit of both parts. With the realist approach, the relation is rather a result of two nations seeking own national interests regardless of the international society's interest. Denmark seeks to promote themselves and the Danish Experience in order to stimulate economic value. This is of course well formulated as an interest in a cleaner and more environmentally secure future of China by promoting knowledge-exchange, helping GOC in the transition towards a more clean energy mix.

The Chinese perspective includes the recognition of international leadership as a strong nation. The importance of Chinese history cannot be neglected as it influences the cultural interest of keeping the image of China as a strong potential world leader. In total, both countries use the cultural interest in the promotion of other national interest, and although it can be questioned with the same quote as mentioned above: "country must protect its national interest by sacrificing international interest" (Yan 2003: 24), it is relevant in issues of protecting the environment. The cultural interest in the Sino-Danish relation in this case does not sacrifice the international interest but rather creates a result mainly based on national interest, while still securing a common goal of cleaner energy usage in China. This leads directly to the political interest since the connection between the two, especially in the questions of environmental protection and green energy, are closely connected.

6.2 Political Interests

The political interest of GOC in manners of RE can be approached as a complex issue since it includes both the improvement of utilization of RE and touches upon China's role in the international society as a potential leading nation. If the question of "Why is the bilateral Sino-Danish cooperation in renewable energy affected by national interests?" is raised, the realist quote "[...] states are hardwired with an insatiable lust for power, which causes them to seek to maximize their share of world power." (Mearsheimer 2002) can be used to explain how China's development in RE could develop into a greater share of world power as the GOC would address one of the issues most countries are concerned about, namely the climate change.

Then the answer could be used to explain China's COP21 goals and further the relevance of Denmark in this. The changes in GOC approach towards climate change and RE is of a radical character when comparing the UN climate conference in 2009 in Copenhagen and the latest in 2015 in Paris. From COP15 to COP21, GOC went from unwillingness to commit to the reduction of carbon emissions (Gracie 2015) and, as presented by President Xi at COP21, to "China's installed capacity of renewable energy accounts for 24% of the world's total, with the newly installed capacity accounting for 42% of the global total. China tops the world in terms of energy conservation and utilization of new and renewable energies." (Xi 2015). This change can, if looked at with realism, be analyzed as a result of a search for more power, responsibility and change. Confronting the climate change by implementing RE to a degree accounting for 24% of the worlds total RE installed capacity can be a direct strategic tool in search for power. By becoming a leading country dominating in RE development and technologies towards a greener energy mix, GOC pursue national interest with ambiguous targets as a focus.

Whilst, China potentially could become leading in RE implementation and transition to sustainable development while also promoting the country with aims of facing the climate change, the government succeeds in implementing politics beneficial nationally as well as internationally. At the international level, China is often questioned of its status as a world power exactly due to the lack of commitment to international issues. By making goals within climate changes, the government undertakes one of the concerns of the international society and thereby also emphasizes the desire of being a world leader. A Greenpeace activist called Yuan Ying was quoted; "China is now showing more willingness to lead the international effort to tackle climate change. We also hope China's efforts can inspire other countries to follow," (Gracie 2015). Political decisions of approaching the climate change and become a leader in energy not only allows GOC to show their capacity as a world leader; it can be directly linked to their foreign policy and the Five Principle of

Peaceful Coexistence. The goals of having Mutual non-interference in each other's internal affairs, Equality and cooperation for mutual benefit, and Peaceful co-existence can support the aim for more power. While it sounds ideal, the benefit for GOC also lays within these points. First, by dealing with the issues of pollution and becoming a pioneer in energy development, China can refer to the non-interference in each other's affairs. If China were the leading country in energy, the international society would be forced to recognize the effort and loose the grounds for critique towards the energy mix and consumption within the borders of China. Since this would be a result of cooperation with other countries, it would moreover lead to points of peaceful co-existence and mutual beneficial cooperation supporting the national interest. Further, the points of Mutual respect for each other's territorial integrity and sovereignty and Mutual non-aggression can be taken into account with a realist approach since GOC would protect national interest and the non-interference if becoming a pioneer in RE. This would give the power to secure that the respect of territorial integrity would remain, as the international society would have no reason to interfere in a country acting as a leader in an international issue of interest. The "insatiable lust for power, which causes them to seek to maximize their share of world power." (Mearsheimer 2002) can therefore be seen as a background for China's actions and change in the agenda on energy and the willingness to undertake a change – hence the desire for a share in world power would be maximized by facing the climate change with, to some extent, admirable amendment.

When looking at the political interest from a social constructivist view, the above mentioned could also be analyzed and result in a different answer to the problem statement. The perception of China as a great and strong nation is a solid political interest since this comprehension allows the political leaders to call for responsibility, stability and power both within and outside the borders of the country.

The sovereignty of China is a social factor because it reflects human thinking and actions along with social thinking. The "identities, interest and practices of the actors of world politics, how these actors unwittingly or purposefully reproduce these structures, and how human action is responsible for both stability and change in world affairs." (Barnett 2014), and, in the case of China, the interest in RE can be seen as a result of how GOC reproduces the nation's power by taking on responsibility in world affairs. These actions and the new agenda towards becoming a leader in RE is a product of social thinking about environmental, social and economic development but also, to a far extent, a social thought of China as a world leader. By approaching the development of RE and making it part of the political interest GOC purposefully interact in world

affairs and causes stability – hence, the biggest polluter in the world is now seeking a more clean energy mix and a more sustainable future development. This means the interest in RE is generally affected by the political interest of developing China and obtaining a position in the world society where power of and respect for the nation is established.

Moreover, the political interest in RE makes a second, yet very important, point when looking at the development within China. The high numbers of pollution not only damage the environment but also cause disturbing danger to the Chinese citizens living in the consequence of the energy mix. This can also be considered a public interest since millions of people in China are breathing heavy polluted air with terrible consequences for their health. For instance the Organization for Economic Co-operation and Development (OECD) released numbers indicating that mortality in China caused by air pollution increased 5% from 2005 to 2010.

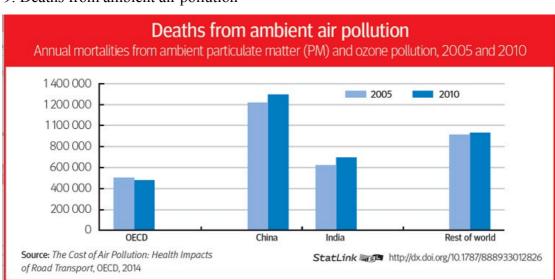


Figure 9: Deaths from ambient air pollution

Figure 9, Source: OECD 2014

These numbers indicate how many people annually die from the direct effect of pollution leading to diseases etc. Moreover, in the World Health Organization (WHO) Climate and Health Country Profile of China from 2015, numbers of the estimated annual premature deaths by 2030 was released to be 684,000 deaths that can be directly attributed to the outdoor air pollution (WHO 2015). These numbers do not include pollution on water and soil, which also affect the annual deaths caused by pollution. The political interest as mentioned is related to the development within China, and the numbers and consequences as the above mentioned can be related to political instability contradicting the image of China as a strong and independent nation. If GOC does not succeed in changing the energy mix towards a more sustainable one, the consequences not only

relates to environment, security and economic issues but also to political instability within China. Two terms can become crucial for the political interest in the near future in the process of development. The pollution has led to environmental damages and as the following quote specify, this cannot be ignored by GOC: "China, in particular, is a hot spot of environmental disasters as it buckles under unsustainable development, giving rise to rapid air pollution and toxic rivers. Alongside desertification, these man-made catastrophes have already left millions displaced" (Lam 2012). The displacement of people and the term environmental refugees and the term pollution refugees are related as they both challenge the social development and stability of China. The following quote support this argument as, "One being those moving overseas to find clean air, and the other is those remaining in China, who flee pollution. The wealthy classes choose America, Canada, Australia, New Zealand or small European countries as destinations. Those remaining in China move to less populated, small and medium sized cities" (Phillips 2014). This presents a threat to the Chinese society if the Government does not change towards a more sustainable development, causing notable decline in the pollution. These tendencies, along with the wish to obtain political power in world affairs, regardless if the cause is approached with realist or social constructivism, can be determined to be relevant incitements for cooperation with Denmark in RE.

To address the political issues of the implementation of RE and the cooperation with a pioneer country such as Denmark in RE, GOC sends political signals of willingness and desire to change the policy on energy and energy consumption. Cooperating with Denmark in the transition towards a clean energy mix in China is in the manner of political interest a way to reach the goals of development, with close connection to the economic development. In the first 13th FYP during President Xi's leadership, the goals on environment include: "encouraging low-carbon production and "green" lifestyle, raising energy efficiency and reducing pollution" (Hong 2015). In order to reach these goals, cooperating with Denmark in RE relies on the fact that Denmark is a pioneer country when it comes to transition towards an "active energy policy focused on enhanced energy efficiency and ambitious use of renewables (...) it is possible to sustain significant economic growth and reduce fossil fuel dependency while protecting climate and environment" (Danish Energy Agency 2015). This cooperation thereby makes it possible for GOC to reach the national goals for development presented in the 13th FYP (Hong 2015) by looking at the transition Denmark is already going through in the consumption of energy. By reaching the goals of transition towards a lowcarbon production, green lifestyle with energy efficiency and reduction of pollution, the political national interest of the Five Principles of Peaceful Coexistence meet the goals of maintaining sovereignty and development. Thereby the negative progress related to the term *environment* refugees and pollution refugees will also be encountered. The ideal scenario for China in the context of cooperation with Denmark is not to copy the Danish Experience but rather to learn from it and implement solutions fitting the Chinese society. In a realist view, this process would eventually make China even more independent as a nation because own production of sustainable energy supply would remove the danger of the existing energy supply primarily moving through The Strait of Malacca⁴. Thereby the economic, security and political issues related to the existing energy supply would not rely on the import of energy and affect China's development. This argument can be supported by the quote from GOC, affirming that the cooperation includes aspiration to "reduce curtailment of wind power, and working closely with the Danish authorities to achieve a general transformation of the Chinese Energy sector in a green and sustainable direction." (Danish Energy Agency 2015: 11).

GOC perceives benefits of cooperating with Denmark as it can help China reach the goals of reducing CO2 emissions and, as apparent above, address the political issues related to energy in China. But in what does the Danish interest in cooperating with China in RE consist? From a social constructivist point of view, the cooperation represents a relation based on actions related to human action. Denmark and China cooperates due to the fact that the two governments in 2015 could celebrate 65 years of diplomatic relations (Denmark in China 2015). This fact testifies to how human relations and social agreements for a long period of time have been reproduced and developed for the benefit of two nations. The Danish government has, through the decision of a one-China-policy, secured the relation to the Asian giant with unbroken ties since 1908 as the only country in the world. This creates a frame of the relation as unique and is a result of human action from the state leaders of both Denmark and China throughout the years. This political tie is now very useful, especially when approached with realism. Denmark has succeeded in maintaining good relations with China, and the political interest in promoting Danish interest is thereby taken care of. In energy, the Danish Experience and the status as a pioneer country allows the Danish export of knowledge, technology and innovation (Denmark-China 2008) into what is accounted for as the largest economy with a progressively significant role (The World Bank 2015). The significant difference in geographical size and distance of the countries must be taken into account since the Danish political interest of cooperating with China not only secures the export of Danish products

-

⁴ Reference in 3.2

but also the brand of Denmark and the Danish Experience. By promoting the country as a pioneer within energy and forming part of the transition towards a sustainable energy mix in China allows the Danish industry and general export to China to increase. China seeks development and products of quality. Exactly this is the force of the Danish foreign policy and good relation with China since Denmark possesses solutions, knowledge, products and ideas to assist the transition in China. The cooperation in RE along with the historical diplomatic ties allows Denmark to access the Chinese market. Further, the CNREC can be approached as a good example of how political ties have developed into a cooperation, allowing Danish experts to partake in direct relations with GOC – hence, the centre has obtained position as research and advisory to NEA (Delman 2014).

Summing up, the political interest in the bilateral Sino-Danish relation as cooperation within RE is strongly affected by the national interest of both countries. While China's interest in RE in general is affected by national interest in manners of development and threat of political instability, the cooperation with Denmark in RE is affected by numerous incitements. First, Denmark holds the position as a pioneer country in RE and a policy of transition in energy, allowing the definition "the Danish Experience". Within this experience, the transition towards a greener energy mix places a direct incitement for GOC to cooperate with Denmark. The possibility for GOC to reach the national goals of development presented in the 13th FYP and address the problems of pollution in China not only contribute to the development in RE but also the problems of pollution and environmental refugees. By approaching the cooperation in RE as a process of learning rather than copying the Danish Experience, GOC reaches towards a more secure and independent energy supply in the future. The transition can potentially make the crucial Strait of Malacca less important, if the energy mix is successfully changed towards a sustainable one relying on RE within China, thus, making the necessity of import of energy supply less significant, hereby, creating a more stabile and secure ground for the further development in China. It will further result in a maintenance of the Five Principles of Peaceful Coexistence in China's policy since the independency and responsibility in RE and energy in general will allow China to address world affairs with a profile of a strong independent nation taking on responsibility in environment and pollution. As a country acting as a leader in an international issue of interest, China follows the realist idea of "insatiable lust for power, which causes them to seek to maximize their share of world power." and at the same time the nations sovereignty is a social factor because it reflects human thinking and actions as well as social thinking. In the case of China, the interest in RE can be seen as a result of how GOC reproduces the nation's power and establishes China as the leader

in Asia when it comes to RE, calling for respect and power in the international society. The Danish interest in the cooperation is closely related to the importance of the history of the diplomatic relations since this has created a possibility for exporting Danish knowledge, products, culture, innovation, ideas etc., all of which secure that the Danish enterprises have access to the largest economy and thereby an enormous target market. The Danish political interest is thereby secured as the continuous political agreements, especially in RE, allows the Danish Experience to be exported and incorporated, through CNREC, directly to GOC. This does not only benefit the Danish export and thereby economy but it also allows Denmark to brand the nation in the international society as a pioneer in RE and energy transition. The diplomatic relation is thereby benefitting both Denmark and China, despite the differences in the motivation behind the cooperation.

6.3 Economic Interest

In 4.1, the description of the countries' foreign policy and national interests clarify that the economic interest is accounted for as the most constant national interest because of the fact that the pursuit of economic stability and development is essential for any nation. China is now ranked as the largest economy in the world (The World Bank 2015), and it can therefore be argued that China has gone past the point of securing the basic survival of the country. This allows for an economic focus to enhance China's status in the international society and can then be argued to have great importance in the political decisions. China's economy is undergoing a change towards becoming a more sustainable economy (Li 2013). The last decade of outstanding economic development has brought along challenges connected to the consequences of having been the world factory. GOC has realised that the investment and export-oriented economy is no longer sustainable, and since President Xi took office in 2013, he has called for a slower and more sustainable growth in the Chinese economy. The transition from investment- and export-oriented growth to a focus on the development of the service sector increase national consumption and private entrepreneurship is part of this plan (Johnston 2015). Facing the challenges of the development in the economy is necessary in order to make the transition towards a sustainable innovative and knowledge-based society and to address the difficulties in the coordination of the growing population, resources and environment (Li 2013). Moreover, the challenges of being an emerging economy country, trying to escape the middle-income trap, the rising awareness of the consequences of pollution and the effects on human resources are issues concerning the economic development and growth of China (The World Bank 2015).

Returning to the problem statement of the thesis "Why is the bilateral Sino-Danish cooperation in renewable energy affected by national interests?" the economic interest provide yet another perspective on the general interest in RE. The answers to the problem statement in the economic interest from a Chinese perspective embrace the above-mentioned goal of changing towards a more sustainable economy. China's general interest in RE can from a social constructivist perspective be linked to the Five Principles of Peaceful Coexistence. By developing the economy and investing in RE, the energy consumption of China would undergo a transition not only to become more sustainable but also more independent. By holding the world's biggest capacity in RE, as President Xi declared at COP21 with the quote:

"China's installed capacity of renewable energy accounts for 24% of the world's total, with the newly installed capacity accounting for 42% of the global total. China tops

the world in terms of energy conservation and utilization of new and renewable energies." (Xi 2015),

GOC shows willingness to change. This can potentially allow the Five Principles of Peaceful Coexistence to keep their applicability in China's foreign policy as the transition would, as mentioned also in the political interest 6.2, call for respect and non-interference, thus, making China the Asian giant securing the peaceful co-existence, equality and cooperation for mutual benefit, necessary for the economic development both within China and internationally. The positive image of a Chinese economy changing, towards a more sustainable one, would secure China's position in the world economy, thereby, allowing mutual non-interference in each other's internal affairs in the development. Again Mr. Pallassana's statement: "The benefits for business are threefold: greater energy security, affordable supplies, and recognized leadership internationally" (Coca 2015) can be used to underline the benefit for China in the transition to a more sustainable economy. The development would lead to benefits allowing GOC to develop under "The New Normal" as the 13th FYP aspire (Hong 2015). In a realist perspective, the question of the incitements for cooperation with Denmark in RE become equally relevant, especially taking into perspective the last line of Mr. Pallassana's statement "[...] affordable supplies, and recognized leadership internationally" (Coca 2015).

First, the Danish economy's energy consumption is among the lowest worldwide compared to gross output⁵. Further, it is accounted for as one of the world's most energy efficient economies, and since the 1990's, the Danish GDP has been growing approximately 40%, all the while the energy consumption domestically has dropped 7% and the carbon emissions adjusted with more than 30% (Danish Energy Agency 2015). With this development, the fostering of new product and industries along with competitiveness of Danish enterprises, caused by the low energy cost and less dependency on fossil fuel, prices have increased (Ibid). This experience of the Danish development, The Danish Experience and Danish Energy Model show clear signs of how

"[...] persistent, active and cost effective energy policy with ambitious renewable energy goals, enhanced energy efficiency and support for technical innovation and industrial development, it is possible to sustain significant economic growth and a

⁵ (Economics) the total output of a firm, industry, or economy without deducting intermediate costs (Collins)

high standard of living, while reducing fossil fuel dependency and mitigating climate change" (Ibid: 2)

This alone gives good reason for GOC to look towards Denmark in the search for a greener energy mix and sustainable economy. Especially since the transition and development in the energy sector and energy supply would lead the access to more affordable supplies, a possible decline in need of energy supply and a greener future, allowing the Chinese economy not only to develop further, but also to achieve more international influence and a transition in the economy, would be necessary in order to maximize the share of world power.

Second, the incitement of investing heavily in RE allow GOC to get closer to implementing "The New Normal", which can be linked to the total energy consumption in China. Thus, it is expected to increase further with the development of the country. The following graph shows the development in energy consumption in China compared to Europe.

Figure 10: Development in Energy Consumption

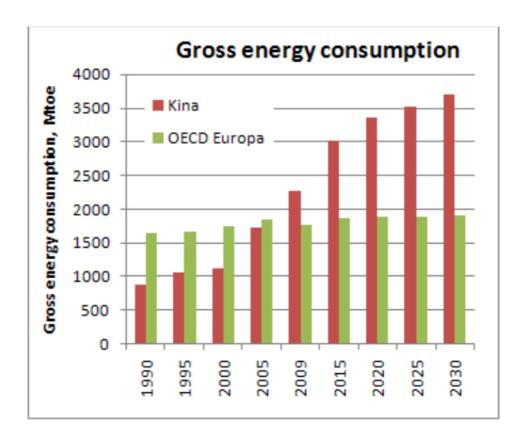


Figure 10: Source: (Danish Ministry of Energy s.a.)

With the expectancy of increasing the gross energy consumption according to the graph, the investment in RE and solutions to a greener energy mix can be linked due to the fact that the shortage of energy supply within China would result in a higher demand of energy import. Thus, making China's further development critical. Improving the energy efficiency and enhancing energy conservation will be fundamental in order to "ease energy supply constains, boost energy security, reduce environmental pollution, "green" the economy and tackle climate challenge" (Mastny 2010). By directing the investments towards health and educational services, GOC would gain the benefit of a healthier, more productive and, before anything, more innovative workforce, which is needed if China wants to obtain the "New Normal" (Johnston 2015). In order to address the economic security of China the economic growth, energy security and environmental protection are all essential components (Liu 2006). The interest in cooperating with a pioneer country such as Denmark allows, along the before menioned points of access to knowlgede and solutions in RE, the possiblity of learning from a country that promotes itself as the "State of Green". China has been investing increasingly towards figthing the pollution and data from 2006 to 2013 are displayed in the following graph:

Figure 11: Total amount of investment to fight pollution

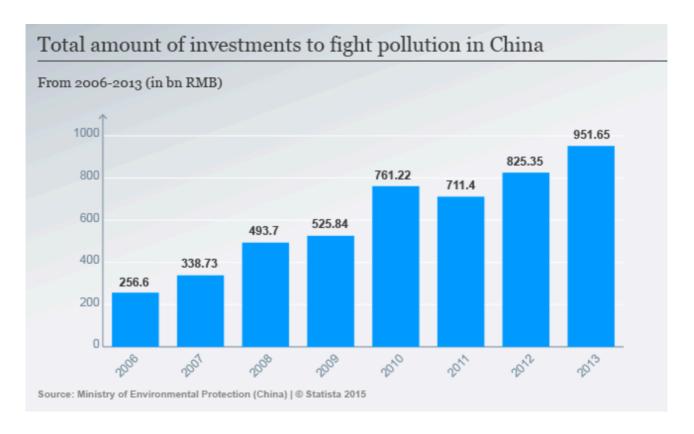


Figure 11 Source: Koschyk 2015

This tendency allows the question of whether the economic investments and economic interst are a sign of a "greener" future in China. Alone in 2014, China accounted for a record in RE investment of \$83.3 billion increasing the investment by 39% compared to 2013 (McCrone 2015). In Chinese incitements of cooperating with Denmark in RE, the massive investments also call for expertice and here Denmark can provide knowlegde and know-how as the leading country in transition within energy without negative consequenses for the economic development. As an example, the wind-capacity of China accounts for 45% of the global total installed capacity. Due to challenges with wind farms, low efficiency and reduced lifespan of the turbines, China searches for help in the Sino-Danish relation (DWEA 2015). A concrete solution was established and Sino-Danish cooperation should benefit the economic investment and prosparicy with the project called: "Project Quality Wind is a Danish-Chinese collaboration, where Danish experts have been granted access to three underperforming wind farms to analyze why they are under achieving and which improvements Danish companies can provide to increase the farm's performance," (Ibid.). This leads to the Danish interest in the cooperation and how the Danish economic interest can be accounted for in the bilateral Sino-Danish relation.

The Danish interest from cooperating with China in RE also consists of several points. The Danish Energy Agency has forwarded the goal of: "Maintaining Denmark's leading position in a number of low-carbon technologies and systems. And ultimately, making Denmark self- reliance on renewable energy in 2050" (Danish Energy Agency 2015: 2). In order to reach this goal, the Danish government needs to secure the further development of Denmark in energy issues as well as maintain economic growth and stability. By addressing the Chinese market as a target market for Danish innovation, knowledge, solutions and developing green products and services, to reduce the pressure on environment, Denmark implements and exploits the diplomatic relation to gain economic benefit. Numbers show that while Danish export in general grew with 0.6%, the export of green technology increased by 15.4% in 2014 (Ministry of Foreign Affairs 2015). This is equivalent to a total export of Danish energy of 12% of the total amount of Danish export and corresponding to more than 10 billion EURO (Ibid). Moreover, in China more than 500 Danish companies are doing business with China, meaning that, outside the European Union, China is now the largest trading partner to Denmark (Ministry of Energy 2014). Great numbers of these companies' trade deals in energy technology create ways for green solutions and sustainable energy from power plants and

Sissel Mai Ødegaard

other energy systems (Ibid). The bilateral Sino-Danish cooperation in RE and the Danish interest are therefore clearly a question of economic security and especially export of Danish goods with the brand "State of Green". Further, the Danish incitement and economic interest can be accounted in the expansion of the cooperation in RE with China's NEA. Here, the development seeks to secure the Danish solutions of RE technology to become applicable to China's system. Especially the benefit of the establishment of CNREC can be expected to benefit the Danish export of RE and know-how even more, hence the center is a signed agreement on expansion and integration of RE (Danish Ministry of Energy s.a.). The adoption of RE is incorporated through political decisions and advise establishing a relation, where Danish advice goes directly to the law-making in RE⁶. This can further be underlined with the point presented by Director of the Danish Energy Industries Federation, Hans Peter Slente, in 2014, when he stated: "An increase in export of energy technologies of nearly 11% in 2013 is a great leap for the sector. It demonstrates that the Danish energy sector is a growth engine for Denmark," (Lauritsen 2014). This points out that the Danish interest in cooperating with China, from an economic interest perspective, can be narrowed down to securing the future export of goods. Especially related to energy, in a matter that sustains the economic growth in Denmark by supporting the total amount of export. Moreover, branding Denmark in a target market such as China could open up for more economic benefit and export since other developing countries could be interested in the "State of Green".

To sum up the economic interest in answering "Why is the bilateral Sino-Danish cooperation in renewable energy affected by national interests?", the transaction in China's economy is essential. The strategy of GOC is to create an economy based on the development of the service sector, increase of national consumption and private entrepreneurship. This could secure a slower but more sustainable growth. The interest in RE reflects the economic interest and underlines the willingness to change towards a more stabile growth reducing pollution, focused on investment towards a greener energy mix. By obtaining a more sustainable access to energy supply, China as a nation would become more independent as a reduction would promote a more self-sufficiently economic growth and development. This would moreover allow GOC to develop under "The New Normal" as the 13th FYP aspire (Hong 2015). China is faced with a challenge with the growing energy consumption, which can only be expected to increase radically as the society develops, and by 2030

Spring 2016

⁻

⁶ See 3.2 Figure 8

the expected gross national consumption is estimated to be more than 3500 Mtoe⁷. Changing could allow China to gain more influence in the international society by fulfilling the required reduction in CO2 emission and implementing RE. The economic investment alone in 2014, RE investment accounted for a record of \$83.3 billion, increasing the investment by 39% compared to 2013 (McCrone 2015). This is an indication that China as nation takes responsibility of the economic investments, regardless of the motive behind. This can be perceived either as a goal of more independency and regoniztion of leadership in the international society or rather as a question of China sharing a common interest with the more developed countries to take responsibility in the question of environmental protection. The interest in cooperating with Denmark can be narrowed down to the potential of learning from one of the pioneer countries in RE, and obtain a transition in the energy sector without negative economic consequences and lack of growth. From a Danish perspective, the potential of China as a target market of exporting knowledge and know-how has direct economic benefit for the Danish economy. The development in China could in the long run be important for Danish enterprises, as China is not only the biggest export market of Denmark outside the European Union but is also a huge target market for future economic benefit.

_

⁷ Million Tons of Oil Equivalent.

6.4 Security Interest

As presented in 4.1, the security interest is the "foundation of the other national interest; hence the other interest can only be reached if the national security is to a certain degree giving by military superiority, territorial security and taking care of the maritime interest" (Li 2015: 27). This makes the security interest of a nation one of the most important, and it is essential in the foreign policy as it cannot be seen as a separate part from the other issues already analysed. The connection between the political interest and especially China's economic interest and the security interest is vital to comprehend in order to answer the problem statement "Why is the bilateral Sino-Danish cooperation in renewable energy affected by national interests?" China's security interest can be separated into different issues: need of energy supply, national security and stability, as well as interest in development and independence. The complexity in each area is necessary to understand in order to answer the problem of the thesis.

The investment in Central Asia is related to the first point. The need for energy supply has led China to invest heavily in nations within Central Asia (Tajikistan, Uzbekistan, Turkmenistan, Kyrgyzstan and Kazakhstan) since they all hold enormous amounts of natural resources (Masoud 2014). The investments can be seen as a way to create energy security; hence they create an alternative to the import of oil, coming from the Middle East (Daniels 2015). Due to the instability in the Middle East region the import of oil creates a direct threat to the energy security of China (Ibid). In 2014, 52 % of China's imported oil came from the Middle East countries Saudi Arabia, Iran and Iraq (Johnson 2015). Dependency on oil from the Middle East creates a vulnerable energy security situation for China, since comprehending the political risk in the region, could force GOC to take diplomatic action to secure own interests (Ibid). The rapid economic growth in China has led to a demand of energy beyond the domestic sources of supply and the numbers presented in "Figure 10: Development in Energy Consumption" in 6.3 show that the expected consumption calls for even more import. From a realist point of view, the question of How China's interest in renewable energy in general affected by the national interest is closely linked to the demand of energy supply and securing national interest of development. The development in RE is only possible if the economy of China continues to grow and the latest downturn in the economy makes it possible to question if China will reach the goal of an energy mix of 20% fossil free sources by 2030 (Wong 2014). In addition, the import of oil has e.g. only been increasing since 1993 according to the following graph.

Figure 12: China's Oil production and Consumption

China's oil production and consumption. 1

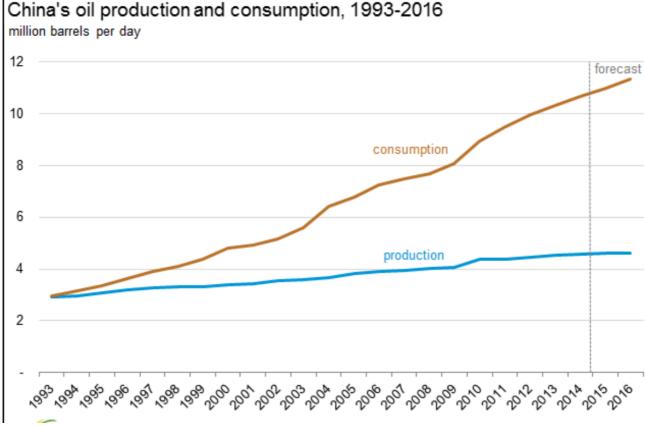


Figure 12 Source: (EIA 2015)

Based on this, the energy security is essential to China's development and the national security interest is therefore a question of securing the domestic interest. This leads to the realist term of power and the possibility to secure the national interest, well-being and survival of the nation as a sovereign state through self-help. 90% of China's foreign trade is carried out in the sea. The First Island Chain (Vien 2015) leading to the Chinese ports in the eastern regions are very important in China's energy supply as the import passes these islands before reaching China. The surrounding seas of China being the South China Sea, the East China sea and the Yellow sea holds the Chain Islands, that is accounted for as the numbers of islands from Japan to Indonesia, many of which are allies to the United States (Ibid). The following map outlines the maritime checkpoints the Chinese trade has to pass.

CHINA

CHINA

Chokepoints along the First Island Chain

CHINA

CH

Figure 13: China's Import Routes

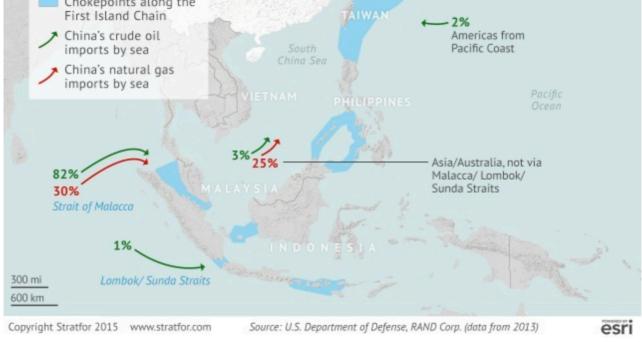


Figure 13 Source: (Vien 2015)

The Strait of Malacca is a crucial point in China's import of energy supply. As the map presents, 82% of China's crude oil import in 2013 passed through this checkpoint. Given that many of the islands are United States' allies, the security interest in the area is under constant pressure as the development and economy of China could potentially be threatened if the US and Chinese interest would end in discrepancy. The US would be able to cut of energy supply to China if closing the checkpoints of Chinese trade (Ibid) and in a realist perspective this would make it impossible for China to maintain the power and sovereignty of the nation. Thus, the investment in Central Asia can be an approach as a matter of self-help leading to the second point of national security and stability.

The establishment of the Shanghai Cooperation Organization [SCO] and the general interest in Central Asia China can secure the energy supply from inland trade routes where the US has no possibility of interfering. The drive behind the cooperation with Central Asia can be explained with the quote:

"[...] the situation in Xinjiang and CA [Central Asia] was very much one of the drivers behind the Chinese concept of the "three evils," that is, separatism, terrorism, and religious extremism " $\equiv \cancel{R} \square \cancel{J}$ " (sangu shili) [...]. The linkages between internal and external security have become increasingly apparent and China has subsequently increased its cooperation with the CA states." (Swanström 2015: 3).

This underlines the importance of confronting the "three evils" if China desires to maintain the alternative trade routes and thereby establish a foundation for power. The national security and stability of Xinjiang Province is a threat to the inland trade from Central Asia, due to the instability of the region (Masoud 2014). Fighting the "three evils" has caused GOC to go against their own foreign policy, i.e. the Five Principles of Peaceful Coexistence, especially the point of "Mutual non-interference in each other's internal affairs", to secure own national interest. China interacts with Kazakhstan in order to secure the unrest in Xinjiang caused by the Uyghurs aspiration for an independent Xinjiang (Ibid). Moreover, the SCO can be seen as another way of securing self-help since it can be seen as an outcome of the concept of "three evils" in search of maintaining the regional stability and security to foster Chinese national interest. Russia and China are the principal roles of the cooperation (Grieger 2015: 2-4) and by cooperating with Russia in a realist understanding, the balance of power in the region is protected in securing the states own interest allying power in coalition. Since the aim with this cooperation is to uphold the security problems and fear of the three evils, the cooperation is assuring the stability of the power of the countries in the cooperation and assures China's interest will not be impeded.

In relation to energy, especially the engagement in security issues in Central Asia has been bigger than the commitment to other parts of the world. This can be directly linked to China's internal security interest in securing the development of anti-terrorism, trade and ways of transportation of trade to secure the general development of China. Here, the "One Belt One Road" (Ibid 2015: 2) initiative along the import and access to energy supply becomes essential in securing the establishment of a safe environment of the economic interest since securing access to energy supply is crucial for China's economy, as presented in 6.3. This leads to the third point of interest in development and independence.

When asking "Why is the bilateral Sino-Danish cooperation in renewable energy affected by national interests?", the Chinese perspective is strongly affected by the points presented above. The Chinese interest in RE in general is in security manners a question of securing the national survival by making sure the energy supply is corresponding to the demand. In the development and desire to become more independent, RE can in the future play a more important role. China is developing and investing in Central Asian relations and initiatives such as "One Belt One Road" in order to become less dependent on sea trade (Vien 2015). In a realist view, this can be seen as a way of maintaining the status as a world leader in search for additional power, not relying on the relation with the US for further development. The general interest in RE in the security interest is another way of securing this independency. China's incitements for cooperating with Denmark in RE can be seen as a way to learn from the Danish Experience where "[...] persistent and active energy policy focused on enhanced energy efficiency and ambitious use of renewables, it is possible to sustain significant economic growth and simultaneously reduce fossil- fuel dependency while protecting the climate and environment". By implementing the policy of the 13th FYP and develop under the "New Normal", the energy security of China would make it possible to import less and produce more energy to comply with the energy demand. If GOC successfully implement development based on a more sustainable economic development model and further reach the goals to "reduce curtailment of wind power, and working closely with the Danish authorities to achieve a general transformation of the Chinese Energy sector in a green and sustainable direction." (Danish Energy Agency 2015:11), the self-help would additionally come from own energy production. In order to face the security dilemma mentioned in 6.2 about the political interest, implementing a greener energy mix would also allow the internal stability by approaching the dilemmas of pollution and environmental refugees. With the goals on environment from the first 13th FYP, GOC pursues "encouraging low-carbon production and "green" lifestyle, raising energy efficiency and reducing pollution" (Hong 2015).

From a social constructivist approach, the aforementioned points allow a question towards the applicability of the foreign policy presented in the Five Principles of Peaceful Coexistence.

- 1. Mutual respect for each other's territorial integrity and sovereignty
- 2. Mutual non-aggression
- 3. Mutual non-interference in each other's internal affairs
- 4. Equality and cooperation for mutual benefit

5. Peaceful co-existence.

The points represent how China perceives of itself and the actions of government in the international society. The cooperation with Central Asia, SCO and Denmark can all be adopted under the concept of China and international relations but the incitements behind these relations can be questioned. The security interest in China's energy supply goes beyond the "Equality and cooperation for mutual benefit" and "Mutual non-interference in each other's internal affairs" since the motive for China's interaction, for instance in Kazakhstan, is highly affected by the demand of energy and the interest in securing the stability of Xinjiang Province. Although actions by China can be seen according to how "alliance patterns, military intervention, arm racing, great power transformation [...] demonstrated how identity and norms shape state interest and must be incorporated to superior explanation." (Barnett 2014: 157). The explanation for China's actions in the cooperation in energy is still more likely to be caused by the need for securing basic survival of the nation.

To answer what the Danish security interest in cooperating with China is consisting of, the question of the Danish general benefit from the relation with China becomes relevant. As a nation, Denmark is small both in size, population, and economy compared to China. In the "Denmark-China – a mutually beneficial partnership" report from 2008 published by The Ministry of Foreign Affairs of Denmark a description of the Danish objectives is stated as follows:

Figure 14: Denmark-China – a mutually beneficial partnership

Denmark's cooperation with China is based on reciprocity and respect. China and Denmark face a number of global challenges which call for strengthened cooperation of mutual benefit.

Securing welfare and prosperity for the future requires that Denmark succeeds in a globally competitive world and utilises the opportunities that growth and development in Asia offer.

In implementing the strategy, "Denmark in Asia – Opportunities for the Future", the Danish Government has decided to elaborate an action plan for increased and focused efforts in China.

The action plan for Denmark's cooperation with China sets out specific initiatives that aim to enhance Denmark's position in China and contribute to safeguarding and promoting Danish interests in the cooperation with China, including in regard to the major challenges facing China.

Figure 14 Source: (Denmark-China 2008: 3)

In relation to the security interest the cooperation in energy can therefore be seen as a result of a desire to "Securing welfare and prosperity for the future requires that Denmark succeeds in a globally competitive world and utilizes the opportunities that growth and development in Asia offer" (Ibid). In a realist perspective, the desire of securing the development of a small nation like Denmark can be related to the theories point of cooperation with other nations although the national interest is not the same. Denmark is with the cooperation securing the interest of welfare and prosperity through self-help by using the development in China to export knowledge and know-how in RE. In manners of self-help, the report also include the following points of Denmark's role and objectives in China's development and the main priorities:

Figure 15: Danish objectives of cooperation

How China manages its domestic and foreign policy challenges has great importance for the entire world and also for Denmark. Denmark must therefore be an active partner and constructive actor in China's development and change process.

Denmark must, on the one hand, play a role in China's continued progress and draw benefit from this development, whilst on the other hand it must seek to influence this development with a view to promoting global security, stability, climate protection, democracy and human rights. Denmark will contribute to creating the conditions for a positive engagement of China in solving global challenges and conflicts.

Figure 15 Source: (Denmark-China 2008: 8)

Figure 16: Priorities for a strengthened Danish-Chinese cooperation

2. Priorities for a strengthened Danish-Chinese cooperation

The partnership will be focused on the following main areas:

- Political dialogue and cooperation
- Climate change, energy and environmental cooperation
- Research, innovation and education
- Commercial relations, including trade and investment
- Recruitment of labour
- Culture and tourism

Figure 16 Source: (Denmark-China 2008: 8)

These points underline how Denmark aims at securing own national interest by formulating a goal of "[...] promoting global security, stability, climate protection, democracy and human rights [...]" (Denmark-China 2008) and thereby provide self-help and secure that the Danish interest in the international society is safeguarded. From a social constructivist view, the cooperation can be approached from a perspective of a socially constructed reality. Constructivism believes the world to be "irreducibly social and cannot be decomposed into the properties of already existing actors." (Barnett 2014: 158) and this can in relation to security interest be regarded as how "the actors of world politics, how these actors unwittingly or purposefully reproduce these structures, and how human action is responsible for both stability and change in world affairs." (Ibid: 155). When the Danish government approach China with the idea that "How China manages its domestic and foreign policy challenges has great importance for the entire world and also for Denmark. Denmark must therefore be an active partner and constructive actor in China's development and change process" (Denmark-China 2008) it is a result of how the image of China as a developing state is reproduced and how the socially constructed reality, which Denmark finds itself in, is reasonable to address China's reality, as the problems are important for the Danish development as well. Moreover, Denmark use social facts as key-points in how to address China and by using "climate protection, democracy and human rights" the socially constructed reality of Denmark allows the promotion of what Denmark perceives as "correct" as a part of the agenda to secure own national interest. By using these social facts, Denmark creates a scenario of having the "correct ways of doing things" and in order to secure that this reality is safeguarded the cooperation with China becomes essential.

To sum up, the answer to the problem statement "Why is the bilateral Sino-Danish cooperation in renewable energy affected by national interest?" in security manners is from a Chinese view a very complex matter. The safeguarding of meeting the energy demand has caused China to address Central Asia and the SCO in search for a more stabile inland trade route, avoiding the checkpoints such as Strait of Malacca and the main US allied islands sea routes. The cooperation with SCO member Kazakhstan further includes securing stability in the Western region and Xinjiang Province since the political unrest in the area is a danger to the incitements such as "One Belt One Road". The general interest in RE can potentially be threatened by the slowing down of the economic growth, as GOC can be expected to desire a continuous development of the nation. Without the needed economic growth, the investment in RE could be postponed in favor of investing in other energy sources in order to meet the energy demands. If China implements and learns from the Danish Experience the changes of meeting the raising energy demand in the future could be reached with a greener energy mix. This would not only allow the international society's recognition of China but also the establishment of China's independency within energy supply to a greater extend and socially establish a foundation for sustainable growth and development facing the high rates of pollution and addressing the before mentioned "pollution and environmental refugees". From a Danish perspective, the cooperation with China includes "Securing welfare and prosperity for the future requires that Denmark succeeds in a globally competitive world and utilizes the opportunities that growth and development in Asia offer" (Denmark-China 2008). Moreover, securing the Danish interest by e.g. "[...] promoting global security, stability, climate protection, democracy and human rights [...]" (Denmark-China 2008) creates the foundation for the cooperation in security manners as Denmark desires to contribute to China's development to ensure that own national interest is safeguarded in the future. This can be approached as a way of self-help or as a product of a socially constructed reality, where China represents the developing nation and Denmark the developed. Therefore, that Denmark should help China to reach the point of "correct ways of doing things" is safeguarded and incorporated in the bilateral relation.

7.0 Discussion

In the following chapter, a discussion of the results from the analysis will be conducted in order to understand the aspects of the cooperation in RE and how it is a result of both national interest and developmental factors but also by China's role in the international society.

7.1 Discussion of results and China's role

The analytical part of the thesis addresses the question of "Why is the bilateral Sino-Danish cooperation in renewable energy affected by national interests?", but if this is to be discussed, the question of China's role in the international society needs to be included prior to this. First and foremost, the responsibility of the situation in China, as a developing nation, can be narrowed down to one single question, namely whether China is solely responsible for the current situation. The international society stresses the importance of addressing China's pollution and the need for action from the GOC. Meanwhile, years of import of Chinese goods around the world, along with outsourced fabrics as a result of low cost prices of producing in China, seems to have reached a termination as the production price in China no longer allows the cheap possibilities of production (Holt 2012). The price of having been the world factory now falls on the GOC since the high rates of pollution creates not only national but also international complications and pressure towards addressing the climate change. With numbers showing that 16% of China's total CO2 emissions in 2012 was related to the production of goods (Thomson 2015), the question of responsibility can be discussed with base in the label "Made in China". The production for foreign markets has resulted in numerous fabrics and the emissions have increased equivalent with the number of exported goods (Ibid). This makes the responsibility of China's pollution a global responsibility, and China's role in the international society can therefore be discussed based on the case study of the thesis. With the Sino-Danish relation and the cooperation in RE, China is showing willingness to change towards a cleaner energy mix and further the 13th FYP shows how GOC desires to develop under "the new normal". The contrast from COP15 in Copenhagen to China's role at COP21 in Paris also highlights the willingness to contribute to global governance while developing the country (MaLean-Dreyfus 2015). When the "Made in China" label and the attitude of GOC towards the climate change are contrasted, the importance of responsibility can be referred back to nations that for generations have enjoyed the privilege of cheap products while China was rising and reaching a point of a leading economy nation. Now this development has resulted in pollution causing daily struggles for the Chinese citizens and making it a matter of national interest of GOC to address this problem. The importance of national interest can be discussed with base in the bilateral Sino-Danish

cooperation in RE.

Based on the thesis, the cultural, political, economic and security interests highlight the aspects of national interest and how they affect the interest in RE, and further how cooperating in the Sino-Danish relation is beneficial for both Denmark and China. With that said, the above-mentioned question of national interest addressing the pollution in China could be discussed further based on the conducted interviews. First, according to Fan Lijuan the importance of RE is part of a national interest: "because renewable energy as part of (...) strategic energy in the future energy system of course it can play more roles to address China's environmental issues to address China's current change issues so all this actually contributes to China's, well, healthy economic growth" (App. 2A: 117-120). This means that China as a nation profits in several ways from the Sino-Danish cooperation. This can be followed by the Danish national interest, which, according to Thomas Shapiro-Bengtsen, is a question of Denmark using its position as a pioneer country in RE to address the pollution and development in China. He states that "the Sino-Danish cooperation on energy is one of the most successful areas of cooperation between the two countries" (App. 2C: 19-20) and that this cooperation includes the Danish angle "to have an impact on the transition in China and to work together with our Chinese counterparts to ensure an ambitious transformation of their energy system. That China succeeds is important both for China and the global effort to mitigate climate change" (Ibid: 27-29). This underlines how the Danish national interest is taken care of with the motive of helping China. Moreover, he states: "there is a lot to be gained for China by looking to Denmark and other ambitious countries for inspiration on how to conduct the transition of the energy system" (Ibid: 48-50), which can be included as an argument for China to cooperate with Denmark in RE. Returning to the question of what motives China might have for its cooperation with international relations in RE, he presents the argument that "A transformation of the sector is absolutely essential for China if it wants to address the serious air pollution issues since the burning of fossil fuels is the main cause and in order for it to reach the goals set out towards 2020 and 2030" (Ibid: 81-83), supporting the cooperation as essential for China to reach own national interest as presented in the 13th FYP. The discussion of the importance of national interest thereby includes the need of meeting the demands and goals of one's own policy. Why national interest matters in the cooperation in RE, Professor Zhang offers his view on the important drivers in the cooperation with Denmark and according to him this includes: "to have a secured energy supply for the growing of the china's economy and also for the people to have a better livelihood so this also need a lot of energy so we need to secure. The second, we have to address the environmental issues

particularly the air pollution and water pollution so associated with the energy utilization. Third, is the climate change because China already made a strong commitment for the international community so would like to (harnish), we need, (...), to address the economic change and navigate the Chinese carbon dioxide emissions I think these are very important drivers" (App. 2B: 117-124). Based on this, the national interest from a Chinese perspective can be discussed since it not only includes the importance of securing economic growth and a better life for the Chinese citizens but also the role of China's responsibility towards the international community. The analysis includes the importance of China's role as a strong international leader and to reach this the need commitment to the goals set by the international society is underlining the argument of Zhang since it supports the idea that China also need to include obligation towards common goals to gain a greater share of the world power. This means that the national interest is of great importance in China's willingness to change towards a greener energy mix since this potentially could play a greater role, as argued in the analysis. Further, the discussion of national interest in the RE cooperation according to Zhang requires that the cooperation is beneficial for both parts and that: "any collaboration should be win-win yes (...), so it could be implementable and also be sustainable so I think this is a renewable energy collaboration initiative is a very good example and maybe in the future we can learn and we can still think and review the process of what kind of collaboration could be really beneficial for the two nations and people" (Ibid: 147-150). Zhang's argument underlines the importance of national interest in the cooperation on RE between Denmark and China; hence it can be discussed if any cooperation would exist if it was not beneficial for both parts. This can further be discussed based on two theories used in the thesis since the relevance of either a realist or social constructivist view on the bilateral relation presents different reasons to cooperate. From a realist view, the cooperation in RE supports that all nations seek to cooperate only to secure own national interest. Held against the social constructivist view, the cooperation in RE is more likely to be a result of two nations cooperating towards results benefitting not only the involved parts but also the rest of the international society. With base in the following argument from Fan Lijuan, the contradictions of the theories can be cut down to the essentiality of why national interests matter in a cooperation such as the bilateral Sino-Danish in RE. She argues that "China is a very good and large market, or target market for any of the countries so based on this cooperation I think the Government Denmark would like to use this, (...), cooperation to increase the Danish industries competiveness of course. For China (...), the environmental issues or the coal dominant energy mix is quit a big issue to be addressed and Denmark has a very good clean energy and renewable energy technology so then the demand and supply actually quit good, quit well linked. And, so we have a common interest - why not cooperate? (App. 2A: 169-176). The last question of "why not cooperate" contributes to answering the problem statement "Why is the bilateral Sino-Danish cooperation in renewable energy affected by national interests?" because it can be argued that the two nations most likely would not cooperate without the benefit for the national interest of the nations. The question about China's role in the international society can then again be included, as the analysis includes the aspects of how the cooperation in RE can be linked to China's development towards becoming a leading nation. The responsibility of each nation in international relations can in the question of RE be limited to be a question of the footprints of each individual state. If we do not address the climate change with for instance cooperation about cleaner energy then the question of national interest might not even be relevant in the future. We have reached a point where the international environmental protection to a greater extend should be reflected in an increase of knowledge sharing from developed nations towards the developing parts of the world. The Sino-Danish cooperation in RE is an example of how national interest affects the process of addressing the climate change and since there is no planet B, it can be discussed if this relation is an example to be followed for the benefit of the national interest of all the world's nations.

Sissel Mai Ødegaard Spring 2016

8.0 Conclusion

The aim of this thesis has been to investigate why the bilateral Sino-Danish cooperation in RE is affected by national interest. In order to conduct the thesis, the case of Denmark was chosen as a case study to analyse how China is cooperating in international relations towards the implementation of renewable energy. By applying realism and social constructivism, the results of the thesis are based within a theoretical approach. This was taken on in order to understand the aspects of China's national interest in renewable energy and if the Sino-Danish cooperation in RE is a result of this national interest. In the following paragraph, an attempt will be made to answer the initial problem formulation, which states as follow:

"Why is the bilateral Sino-Danish cooperation in renewable energy affected by national interests?"

Through the analysis, it can be concluded that the national interests of both Denmark and China are affecting the Sino-Danish cooperation in RE due to complexity of the motivation behind the cooperation. The bilateral Sino-Danish cooperation in RE is affected by national interest because these motives are the main driver behind the cooperation and without the national interest and benefit for both nations, the cooperation would not be relevant. In more detail, it can be concluded that the cultural part of the analysis led to the understanding of how objectives of the foreign policy are carried out by both Denmark and China, and that the relation can be seen as a product of wellformulated agenda articulated as common cultural exchange. From the Chinese perspective it is essential to understand the importance of the history and cultural values behind the Five Principles of Peaceful Coexistence, when trying to understand why China acts the way it does in the international society. Moreover, the Chinese and Danish objectives can be seen as a result of a result of a socially constructed worldview, where the interaction between the nations are with a common goal of protecting nature through establishment of RE implementation and knowledge exchange for the benefit of both parties. It can be concluded that Denmark uses the cultural values to seek the promotion of the Danish Experience to stimulate economic value. Meanwhile, the Chinese perspective includes the recognition of international leadership as a strong nation.

In total, both countries use the cultural interest in the promotion of national interests but the Sino-Danish cooperation in RE is not sacrificing the international interest but creates a result ensuring a common goal of cleaner energy usage in China.

In the political interest, it can be concluded that the Sino-Danish cooperation in RE is politically beneficial for both nations. With the cooperation, China addresses national interest and possibility

for GOC to reach the national goals of development presented in the 13th FYP and addresses the problems of pollution in China, providing an answer to the sub-question "How is China's interest in renewable energy in general affected by the national interests?". The cooperation not only contributes to the development in RE but also the problems of pollution and environmental refugees. Further, it benefits the Danish government to maintain Denmark's position as a pioneer country in RE, while promoting the Danish solutions for the profit of the Danish economy and enterprises. Since the Strait of Malacca is of great political matter for the GOC, the cooperation towards a greener energy mix is a direct motivation for cooperating with Denmark because a change in the energy supply chain and need for energy supply potentially could change over time, making this point a less crucial one for China's further development, answering the sub-question "What are the incitements for cooperating with Denmark in renewable energy?".

The economic part of the analysis makes it possible to conclude that the transaction in China's economy is addressing an economy based on the development of the service sector, national consumption increase and private entrepreneurship. This could secure a slower but more sustainable growth. The interest in RE reflects the economic interest and underlines the willingness to change towards more stabile growth, reducing pollution and focusing on investments towards a greener energy mix. By obtaining a more sustainable access to energy supply, China, as a nation, would become more independent as a reduction would promote a more self-sufficiently economic growth and development. This would moreover allow GOC to develop under "The New Normal" as the 13th FYP aspire. From a Danish perspective, it can be concluded that the potential of China, as a target market of exporting knowledge and know-how, has direct economic benefits for the Danish economy. The development in China could in the long run mean more for the Danish enterprises, as China is not only the biggest export market of Denmark, outside the European Union, but also a huge target market for future economic benefit, which also answer the sub-question "In what does the Danish interests in cooperating with China in renewable energy consist?".

The security part of the analysis makes it possible to conclude that the national interest in safeguarding the energy supply in China, and thereby secure the further development of the nation, is addressed in the Sino-Danish cooperation. It also includes the aspect that cooperating with Denmark in the long run could result in recognition from the international society and secure the independency of China's energy supply to a greater extent. Moreover, the national security within China would be established with a foundation in sustainable growth facing the high rates of pollution. From a Danish perspective, the cooperation with China includes ensuring the further

development of the welfare state and allows the contribution to China's development, since Denmark represents the developing nation and should help China to reach the point of a greener energy mix, for the benefit of all. Based on the discussion, it can be concluded that the pollution in China can be considered a result of the "Made in China" label since the country has been the world factory. Thus, making it a responsibility of all nations to address the issues climate change of the China. Further, it can be concluded that experts find the cooperation very relevant in the future of energy in China, and the national interest affecting the cooperation must therefore be seen as the main motivation behind addressing climate change and pollution in general as the Sino-Danish cooperation represents a bilateral relation, which regardless of the motives behind seeks to develop RE in China for the benefit of all.

9.0 Bibliography

- ❖ Antoft, R. and Salomonsen, H. H. (2007): *Det kvalitative casestudium*. Kapitel 1 i Antoft, R., Jacobsen, M. H., Jørgensen, A. & Kristiansen, S. (2007): *Håndværk og horisonter Tradition og nytænkning i kvalitativ metode*. Syddansk Universitetsforlag.
- ❖ Barnett, M. (2014) "Social Constructivism," in John Baylis, Steve Smith and Patricia Owens (eds.) *The Globalization of World Politics An Introduction to International Relations*, Oxford University Press.
- ❖ Berger, P and Luckmann, T. (2002) *Den samfundsskabte virkelighed En videnssociologisk afhandling*, 2.udgave, 5. oplag, Lindhardt & Ringhof
- ❖ Coca, N. (2015) "The COP21 Deal: What does it Mean for Asia?" [Online] December 18 2015. Available from The Diplomat' website

 < http://thediplomat.com/2015/12/the-cop21-deal-what-does-it-mean-for-asia/> [Accessed 29 February 2016].
- ❖ Cambridge Dictionaries (2016) "Green energy" [Online Dictionary] Available from the website ≤ http://dictionary.cambridge.org/dictionary/english/green-energy≥ [Accessed 16 February 2016].
- ❖ CAT Climate Action Tracker (2015) [Online database] December 15 2015 Available from Climate Action Tracker' website ≤ http://climateactiontracker.org/indcs.html [Accessed 29 February 2016].
- ❖ CNREC (2015) "Fan Lijuan Head of International and Regional Cooperation Department" [Online] 2015. Available from China National Renewable Energy Centre's website < http://www.cnrec.org.cn/english/career/cooperation/2012-04-14-243.html → [Accessed 10 March 2016]
- ❖ Collins Dictionaries (2016) "*Gross Output*" [Online Dictionary] Available from the Collins Dictionary website ≤ http://www.collinsdictionary.com/dictionary/english/gross-output≥ [Accessed 10 March 2016].
- ❖ Collin, F. and Køppe, S. (2003) "Humanistisk Videnskabsteori 2". Edition 8. Version 2012.
- ❖ Daniels, O and Brown C. (2015) "China's Energy Security Achilles Heel: Middle Eastern Oil" [Online] September 2015. Available from *The Diplomat's website* http://thediplomat.com/2015/09/chinas-energy-security-achilles-heel-middle-eastern-oil/ [Accessed 10 March 2016].

- ❖ Danmark I Kina. (2015) "Danmarks Kina Politik" in *Danmark i Kina ministry of foreign affairs of Denmark* [Online] Available from *Danish foreign ministry website* < http://kina.um.dk/da/om-kina/danmarks-kina-politik > [Accessed 10 March 2016].
- ❖ Dansk Energi (2015) "Ny statestik: Grøn eksport skaber synlig værdi" in Dansk Energi [Online] 15 January 2015. Available from *Dansk Energi website* [Accessed 12 February 2016]." Tebruary 2016].
- ❖ Danish Energy Agency, (2015) "The Danish Energy Model Innovative, Efficient and Sustainable" [Online] Marts 2015. Available from The Danish Energy Agency's website http://www.ens.dk/sites/ens.dk/files/energistyrelsen/Publikationer/dk_model_revideret.pd [Accessed March 10 2016]
- ❖ Danish Energy Agency, B (2015) "China: The Danish Embassy in Beijing welcomes new energy counselor from the Danish Energy Agency" [Online] 31. August 2015. Available from The Danish Energy Agency's website http://www.ens.dk/en/info/news-danish-energy-agency/china-danish-embassy-beijing-welcomes-new-energy-counsellor-danish [Accessed March 11 2016]
- ❖ Danish Ministry of Energy (2014) "China and Denmark sign new cooperation agreement on energy efficiency" [Online] 1 May 2014. Available from the *Danish Ministry of Energy, Utilities and Climate's website* < http://www.efkm.dk/en/news/china-and-denmark-sign-new-cooperation-agreement-on-energy-efficiency> [Accessed 10 March 2016]
- ❖ Danish Ministry of Energy (s.a) "Fact Sheet on China's energy sector and Danish Solutions" [Online]. Available from the *Danish Ministry of Energy, Utilities and Climate's website* http://www.ens.dk/sites/ens.dk/files/policy/renewable-energy-cooperation-china/scenario-analyses/Scenario%20Fact%20Sheet.pdf [Accessed 10 March 2016]
- ❖ Denmark (2015) "It's All about Denmark" in Denmark.dk [Online] Available from Danish Denmark.dk website ≤http://denmark.dk/en/~/media/Denmark/Documents/Quick%20facts/Its%20All%20About %20Denmark.pdf> [Accessed 12 February 2016].
- ❖ Denmark-China a mutually beneficial Partnership. (2008) The Ministry of Foreign Affairs of Denmark.
- ❖ Denmark in China. (2015) "Sino-Danish relations" in *Denmark in China ministry of foreign affairs of Denmark* [Online] Available from *Danish foreign ministry website* < http://kina.um.dk/en/about-denmark/sino-dk-relations/> [Accessed 21 January 2016].
- ❖ Delman, J. (2014) "The Danish RED program and China National Renewable Energy Centre (CNREC)" Report from final technical review mission, 2. December 2014.
- ❖ Dictionary.com (2016) "*Renewable energy*" [Online Dictionary] Available from the website http://dictionary.reference.com/browse/renewable-energy [Accessed 21 January 2016].

- ❖ Dong, W., Cheung, D and Sit, D. (2015) "China's 13th Five-Year-Plan (2016-2020) Redefining China's development paradigm under the New Normal", [Online] November 2015. Available from *Fung Business Intelligence Centre's website* https://www.fbicgroup.com/sites/default/files/China's%2013th%20Five-Year%20Plan%20(2016-2020)%20Redefining%20China's%20development%20paradigm%20under%20the%20New %20Normal.pdf [Accessed 17 February 2016].
- ❖ Dunne, T. and Schmidt B.C. (2014) "Realism," in John Baylis, Steve Smith and Patricia Owens (eds.) *The Globalization of World Politics − An Introduction to International Relations*, Oxford University Press.
- ❖ DWEA (2015) "China demands Danish expertise" [Online] 26 May 2015. Available from *Danish Wind Export Association's website* http://www.dwea.dk/news-press/news/china-demands-danish-expertise [Accessed 10 March 2016]
- ❖ EIA (2015) "China Overview" in Energy Information Administration [Online] 14 May 2015. Available from *Energy Information Administration website* https://www.eia.gov/beta/international/analysis.cfm?iso=CHN [Accessed 14 March 2016].
- ❖ Energistyrelsen (2016) "Sino-Danish relations and green energy cooperation solidified with state visit to China" [Online] May 7 2014. Available from *The Energistyrelsen 'website* < http://www.ens.dk/node/4010> [Accessed 16 February 2016].
- ❖ Entracte (2016) "Zhang Xiliang" [Online] 2016. Available from Entracte's website < http://entracte-project.eu/consortium/advisors/xiliang/> [Accessed 12 March 2016].
- ❖ Fang, C, Lin, J Yifu and Yong, C. (2009) The Chinese Economy Reform and Development. McGraw-Hill Education, Asia, 2009.
- ❖ FMPRC (2016) "China's Initiation of the Five Principles of Peaceful Co-Exsistance" [Online] Available from *Foreign Ministry of People's Republic of China website* < http://www.fmprc.gov.cn/mfa_eng/ziliao_665539/3602_665543/3604_665547/t18053.shtml > [Accessed 20 March 2016].
- ❖ Gracie, C. (2015) "China's about-face on climate change" [Online] November 30 2015. Available from The BBC' website < http://www.bbc.com/news/world-asia-china-34929561 > [Accessed 4 March 2016].
- ❖ Granite State College University System of New Hampshire (2015) "Evaluating Information

 Using the CARS Method" [Online database] Available from
 http://library.granite.edu/car/ [Accessed 4 December 2015].
- ❖ Gao, A. M. and Fan, C. (2014) "Legal Issues of Renewable Energy in the Asian Region, Recent Development in post-Fukushima and post-Koyoto Protocol Era" [Online] 21 Marts

- 2014. Available from *Wolters Kluwer Law and Business' website* <a href="http://www.wklawbusiness.com/store/products/legal-issues-renewable-energy-asia-region-recent-developments-post-fukushima-post-kyoto-protocol-era-prod-9041148566/hardcover-item-1-9041148566/ [Accessed 11 February 2016].
- ❖ Grieger, G. (2015) "China's leading role in the Shanghai Cooperation Organizaiton" in European Parliament briefing 2015. Available from http://www.europarl.europa.eu/RegData/etudes/BRIE/2015/564367/EPRS_BRI(2015)564367 [Accessed February 2016].
- ❖ Global Security (2014) "Shanghai Cooperation Organization (SCO)" in *Global Security* [Online]. Available from *Global Security's website* <www.globalsecurity.org/military/world/int/sco.htm> [Accessed 4 December 2015].
- ♣ Harvey, F. (2015) "Paris climate change agreement: the world's greatest diplomatic success" [Online] December 14 2015. Available from The Guardian' website < http://www.theguardian.com/environment/2015/dec/13/paris-climate-deal-cop-diplomacy-developing-united-nations > [Accessed 29 February 2016].
- ❖ Holt, J. (2012) "Kina snart for dyr til at være 'verdens fabrik'" in Ingeniøren [Online] 15 March 2012. Available from Ingenøren's website https://ing.dk/artikel/kina-snart-dyr-til-vaere-verdens-fabrik-127641 [Accessed 28 April 2016].
- ❖ Hong, W. Cheung, D., Sit, D. (2015) "China's 13th Five-Year Plan (2016-2020) Redefining China's development paradigm under the New Normal" in China's Policy Think Piece Series Issue No. 2. Fung Business Intelligence Center November 2015.
- ♣ Hu, J. (2005) "Build Towards a Harmonious World of Lasting Peace and Common Prosperity" [Online] September 15 2015. Available from United Nations' website http://www.un.org/webcast/summit2005/statements15/china050915eng.pdf [Accessed 24 February 2016].
- Johansson, R. (2003) Case Study Methodology, Royal Institute of Technology
- ❖ Johnson, K. (2015) "China Tops U.S. as Biggest Oil Importer" [Online] 11 May 2015. Available from *Foreign Policy's Website* http://foreignpolicy.com/2015/05/11/china-tops-u-s-as-biggest-oil-importer-middle-east-opec-sloc/ [Accessed 10 March 2016]
- ❖ Johnston, M. (2015) "China's Economy: Transition to Sustainable Growth" [Online] 11 September 2015. Available from *Investopedia's website* http://www.investopedia.com/articles/forex/091115/chinas-economy-transition-sustainable-growth.asp [Accessed 10 March 2016]
- ❖ Kvale, S, (2001) *InterView En introduktion til det kvalitative forskningsinterview*, Hans Reitzels Forlag

- ❖ Koschyk, M. (2015) "COP21: China's climate efforts far from sufficient" in Deutsche Welle [Online] 31 November 2015. Available from *website* http://dw.com/p/1HEfJ [Accessed 21 January 2016].
- Lam, A. (2012) "Environmental refugees on the rise" in South China Morning Post [Online] 17 August 2012. Available from *South China Morning Post's website* http://www.scmp.com/comment/insight-opinion/article/1016301/environmental-refugees-rise [Accessed 9 March 2016].
- ❖ Lauritzen, D. H. (2014) "New Sino-Danish Energy Agreement" [Online] 24 April 2014. Available from the *State of Green's website* < https://stateofgreen.com/en/news/new-sino-danish-energy-agreement> [Accessed 14 February 2016].
- ❖ Li, S., Wu, S. and He, J. (2013) "Prospects for China's economic development in the next decade" in China Finance and Economic Review SpringerOpen Journal, no. 1.
- Li, Q. (2015) "Prospects of China's Foreign Policy." Lecture, China's Foreign Policy: Theory and Practices, University of International Relations, September.
- ❖ Liu, B. (2015a) "China's energy consumption and production." Lecture, China's Economic Development Model and Its Global Interaction, University of International Relations, September.
- Liu, X. (2006) "China's Energy Security and Its Grand Strategy" in The Stanley Foundation [Online] September 2006. Available from *The Stanley Foundation website* http://www.stanleyfoundation.org/publications/pab/pab06chinasenergy.pdf [Accessed 14 March 2016].
- ❖ Masoud, F. (2014) "Central Asia: A region of Strategic Importance to China" in International Policy Digest [Online] 3 December 2014. Available from *International Policy Digest website* < http://intpolicydigest.org/2014/03/12/central-asia-region-strategic-importance-china/> [Accessed 14 Marts 2016].
- ★ Mastny, L. (2010) "Renewable Energy and Energy Efficiency in China: Current Status and Prospects for 2020" in Worldwatch report 182 [Online] October 2010. Available from website < http://www.worldwatch.org/system/files/182%20China%20Energy.pdf > [Accessed 23 February 2016].
- ❖ McCrone, A., Moslener, U. Usher, E., Grüning, C. (2015) "Global Trends in Renewable Energy Investment 2015" [Online] March 2015. *Available from Frankfurt School − FS-UNEP Collaboration Centre's website* http://fs-unep-centre.org/publications/global-trends-renewable-energy-investment-2015> [Accessed 10 March 2016]
- ❖ Mclean-Dreyfus, M. (2015) "COP21, China's role and developed nations' obligations as

reported in Chinese media" in the interpreter [Online] 4 December 2015. Available from *the interpreter's website* < http://www.lowyinterpreter.org/post/2015/12/04/COP21-Chinas-role-and-developed-nations-obligations-as-reported-in-Chinese-media.aspx> [Accessed 28 April 2016].

- ❖ Mearsheimer, J. J. (2002) in "Realism," in John Baylis, Steve Smith and Patricia Owens (eds.) *The Globalization of World Politics An Introduction to International Relations*, Oxford University Press.
- ❖ Mearsheimer, J. J. (1995) "The False Promise of International Institutions" in International Security, Winter 1994/95 Vol. 19. No. 3. pp. 5-49.
- Ministry of Foreign Affairs (2015) "Danish Export of Green Energy Technology Sets New Record" [Online] 5 May 2015. Available from the *Ministry of Foreign Affairs of Denmark's website* http://www.investindk.com/News-and-events/News/2015/Danish-Export-of-Green-Energy-Technologies-Sets-New-Records [Accessed 10 March 2016].
- ❖ Odgaard, Ole, Delman, Jørgen (2014) "China's energy security and its challenges towards 2035" in Elsevier on Energy Policy volume 71, August 2014 pages 107-117. Available from Elsevier Journal website via Aalborg University Library http://www.sciencedirect.com.zorac.aub.aau.dk/science/article/pii/S0301421514002079 [Accessed 17 March 2016].
- ❖ OECD (2014) "Air pollution kills" in OECD Observer [Online Database] 2014. Available from OECD' website http://www.oecdobserver.org/news/fullstory.php/aid/4411/Air_pollution_kills.html [Accessed 9 March 2016].
- ❖ Panda, A. (2014) "Reflecting on China's Five Principles, 60 Years Later Sixty years later, what are China's "five principles" worth?" in *The Diplomat*. [Online] 6th June. Available from *The Diplomat's website* http://thediplomat.com/2014/06/reflecting-on-chinas-five-principles-60-years-later/ [Accessed 19 January 2016].
- ❖ Phillips, A. (2014) "Wealthy Residents Depart Chinese Mainland In Search of Clean Air" in Think Progress [Online] 4 March 2014. Available from Think Progress Organization's website http://thinkprogress.org/climate/2014/03/04/3357381/pollution-chinese-environmental-refugees-island/ [Accessed 9 March 2016].
- ❖ Pitlo, L. B. (2015) "China's 'One Belt, One Road' To Where?" in *The Diplomat* [Online] 17 February. Available from *The Diplomat's website* http://thediplomat.com/2015/02/chinas-one-belt-one-road-to-where/ [Accessed 27 November 2015].

- ❖ Rasborg, K. (2004) Socialkonstruktivismer i klassisk og moderne sociologi i Videnskabsteori i samfundsvidenskaberne – på tværs i fagkulturer og paradigmer in Roskilde Universitetsforlag.
- ❖ Reuters, C. Aizhu and Bai (2010) "Analysis China clean energy plan hinges on coal price" in Reuters [Online] 27 August 2010. Available from *Reuters' website* http://in.reuters.com/article/idINIndia-51103420100827> [Accessed 4 February 2016].
- ❖ Schiavenza, M. (2013) "How Humiliation Drove Modern Chinese History" in The Atlantic [Online] 25 October 2012. Available from *the Atlantics' website* < http://www.theatlantic.com/china/archive/2013/10/how-humiliation-drove-modern-chinese-history/280878/ > [Accessed 24 February 2016].
- ❖ State of Green (2015) "Danish export boom in green energy technologies" [Online] 5 May 2014. Available from the *State of Green's website* https://stateofgreen.com/en/news/danish-export-boom-in-green-energy-technologies> [Accessed 11 February 2016].
- Swanström, N. (2015) "The Security Dimension of the China-Central Asia Relationship: China's Military Engagement with Central Asian Countries", Institute for Security & Development Policy. Available from *Institute for Security and Development Policy website* http://www.uscc.gov/sites/default/files/Swanstrom%20Testimony_3.18.15.pdf [Accessed 14 March 2016].
- Thomson, S. (2015) "Are you responsible for China's pollution?" [Online] 26 November 2015. Available from World Economic Forum's *website* https://www.weforum.org/agenda/2015/11/are-you-responsible-for-chinas-pollution/ [Accessed 24 February 2016].
- ❖ Transparency International (2015) "Denmark Overview" in *Transparency International*. [Online Database] Available from *Transparency International website* http://www.transparency.org/country#DNK >[Accessed 12 February 2016].
- ❖ Tiezzi, S. (2014) "In New Plan, China Eyes 2020 Energy Cap" in *The Diplomat*. [Online] 20 November 2014. Available from *The Diplomat's website* ≤ http://thediplomat.com/2014/11/in-new-plan-china-eyes-2020-energy-cap/ > [Accessed 16 February 2016].
- ❖ The World Bank (2015) "World Development Indicators" in The World Bank [Online Database] Available from The World Bank's website http://data.worldbank.org/indicator/NY.GDP.MKTP.CD/countries/KZ?display=graph [Accessed 11 February 2016].
- ❖ The World Bank (2014) "Data Denmark" in *The World Bank* [Online Database] Available from *The World Bank's website* http://data.worldbank.org/country/Denmark [Accessed 12 February 2016].

- ❖ The World Bank (2015) "Overview China" in *The World Bank* [Online Database] 18 September 2015. Available from *The World Bank's website* http://www.worldbank.org/en/country/china/overview [Accessed 10 March 2016].
- ❖ Varin, C. (2009) *Humiliation, National Identity and Foreign Policy: A Study of France and China*, London School of Economics and Political Science.
- ❖ Vien, T. (2015) "The Grand Design of China's New Trade Routes" in Strategic Forecasting Inc. (Stratfor Enterprises) [Online] 24 June 2015. Available from Strategic Forecasting Inc. (Stratfor Enterprises) website < https://www.stratfor.com/analysis/grand-design-chinas-new-trade-routes> [Accessed 14 March 2016]
- ❖ Wang, J. (2011) "Foreign Affairs. China's search for a Grand strategy, a rising great power finds its way", *Council of Foreign Affairs*, Vol. 90 (2) Available from Foreign Affairs website https://www.foreignaffairs.com/articles/china/2011-02-20/chinas-search-grand-strategy [Accessed 14 March 2016].
- Wendt, A. 1999. Series: Cambridge Studies in International Relations, Vol. 67. Cambridge, U.K. Cambridge University Press. Accessed via *Aalborg University Library website*: [Accessed 9 March 2016].
- ❖ WHO (2015) ""Climate and Health Country Profile 2015, China" [Online] November 2015. Available from *World Health Organization's website* http://www.who.int/globalchange/resources/PHE-country-profile-China.pdf?ua=1 [Accessed 9 March 2016].
- ❖ World Atlas [Online database] 29 September 2015 Available from *World Atlas' website* http://www.worldatlas.com/aatlas/infopage/balticsea.htm> [Accessed 12 February 2016].
- ❖ Wong, E. (2014) "China's Climate Change Plan Raises Questions" [Online] November 2014. Available from New York Times' website http://www.nytimes.com/2014/11/13/world/asia/climate-change-china-xi-jinping-obama-apec.html?_r=0 [Accessed 9 March 2016].
- ❖ Wängelin, E. (s.a.) "Matching Bricolage and Hermeneutics: A theoretical patchwork in progress". Lund University, Division of Industrial Design, Department of Design Science. Available from *Lund University Website* < http://www.uiah.fi/sefun/DSIU_papers/DSIU%20_%20W%E4ngelin%20_%20Matching%2 0Bricolage%20and%20Hermeneutics.pdf> [Accessed 9 February 2016].
- ❖ Xi, J. (2015) "Work Together to Build a Win-Win, Equitable and Balanced Governance Mechanism on Climate Change" [Online] September 30 2015. Available from China Daily'

- *website* http://www.chinadaily.com.cn/world/XiattendsParisclimateconference/2015-12/01/content 22592469.htm > [Accessed 29 February 2016].
- ❖ Yan, X. (2003) Analysis of Chinas National Interest. Available from *Swiss Federal Institute* of *Technology Zurich website* http://www.isn.ethz.ch/Digital-Library/Publications/Detail/?lng=en&id=145296 [Accessed 9 March 2016].
- ❖ Yin, R. K. (2006) "Case Study Methods" in Judith L. Green et al. (eds.) *Handbook of Complementary Methods in Education Research*, American Educational Research Association.
- ❖ Yin, R. K. (2003) *Case study research design and methods* 3. Edition. SAGE Publications
- ❖ Zhang, L. (2013) "China's Traditional Cultural Values and National Identity" in Carnegie-Tsinghua Center for Global Policy. [Online] 21st November. Available from Carnegie-Tsinghua Center for Global Policy's website
 < http://carnegietsinghua.org/publications/?fa=53613> [Accessed 25 February 2016].
- ❖ Zweig, D. and Bi, J. (2005) "China's Global Hunt for Energy" [Online] September 2005. Available from *Foreign Affairs website* https://www.foreignaffairs.com/articles/asia/2005-09-01/chinas-global-hunt-energy [Accessed 13 March 2016].

Sissel Mai Ødegaard Spring 2016

10.0 Appendices

Appendix 1

Interview guide semi-structured interviews

Briefing		
Presentation of the interviewer and the purpose of the project	Who is conducting the research	I will begin by introducing myself. My name is Sissel Ødegaard and I am currently finishing my Master degree in Development and International Relations with specialization in China and international relations. The master is a joint program offered by Aalborg University together with University of International Relations, Beijing.
	The purpose of the interview	The purpose of the interview is to clarify how you experience the bilateral Sino-Danish relation and how you define the importance of national interest in this relation.
The limits of the interview	Timeframe	The interview will take around 30 minutes.
Important background	Make aware that the interview is recorded on Ipad	The interview is being recorded on Ipad in order to support the memory and the further work with the thesis.
Anonymous/Specified	Decided by the person before starting the interview	This interview will be treated as confidential. The things mentioned in the interview will be anonymous/specified according to the agreed.
	Clarification of roles	My role will be limited to the control of the electronics and asking questions as well as

		taking notes during the
		interview.
	Exposition of interview	If you have any questions or
		doubt about what is meant
		with a question as we
		precede please feel free to
		ask. Further, I would like to
		secure that you are aware of
		that any information giving
		in this interview is voluntary
		and you have the right to
		withdraw your answers at
		any time. If a question is not
		of your interest to answer
		feel free to deselect.
Presentation of the interview	Introduction/ anonymous	Will you start by introducing
person		yourself? (Name, position,
		knowledge about the Sino-
		Danish relation)

Theme	Interview question
Small talk	 I would like to start by hearing what the keywords in the bilateral Sino-Danish relation are seen from your perspective? Do both Denmark and China benefit from the relation equally?
Importance of the relation	 China interacts with many countries, how essential is the Sino-Danish in manners of energy? The ongoing transition and new politics on energy and renewable energy in China is often questioned especially by Western media – do you thing the Sino-Danish relation could immerge results that would change this perception? Do you think a change in China's energy usage is possible with the help from the Danish Experience?
The national interest	• If you should describe China's interest in cooperating with Denmark and the other way around – how would you define the following four interest. Cultural, political, economic and security. Starting from the cultural perspective of the interest of both?

The bilateral Sino-Danish relation	 Denmark and China are far apart in size and development. What is the fundament of the relevance of the bilateral Sino-Danish relation? China's national interest in energy is influenced by the lack of energy supply. What is the main driver behind Denmark's national interest in the cooperation? How is China's national interest and policy-making in renewable energy persuaded by the bilateral Sino-
Energy in the future	 Danish relation? How will the development in the energy sector and politics affect the
	 future of energy in China? Will the Danish experience be able to contribute to a real change in energy usage in China? What are the political incitements of cooperation in policy-making in energy?
Perspective	 Is it possible to sum-up the benefits of the relation from a Danish perspective?
Closure	Is there anything else you would like to add towards your perspective and understanding of the bilateral Sino- Danish relation?
Debriefing	
Termination	We are about to be done with the interview.
Practical	The interview will be transcribed and be part of the knowledge and material conducted in the thesis, which will be handed in in May. If interested a copy can be forwarded to the contact email.
Sum-up	I would like to express my gratitude towards your participation. You are more than welcome to contact me if any questions should occur.

Appendix 2

48

A: Fan Lijuan Head of international and Regional Cooperation Department at China National Renewable Energy Centre

S: Sissel Mai Ødegaard – Interviewer. F: Fan Lijuan – Interviewed. S: well, I will begin by introducing myself, my name is Sissel Mai Ødegaard and I am currently finishing my master degree in development and international relation with specialization in China and International relations. The master is a joint program offered by Aalborg university together with University of international relations, Beijing.. and, the purpose of this interview is to clarify how the experience, uhm how you experience the bilateral relation, the Sino-danish relation and how you define the importance of the national interest in the relation. The interview will take around 30 minutes and the interview will be recorded on these two devices being an Ipad and a 10 Iphone in order to support the memory and the further work with the thesis. The interview will be treated as very confidential and the things mentioned in the interview will be anonymous or specified according to what you will agree with and my role will be limited to asking the control of the electronics and asking the questions. 13 14 15 16 17 S: if you have any questions or doubt about what is, eh, meant with any question, eh before we 18 proceed you can please ask me and then further if you have any information and, eh this interview is voluntary and you can withdraw any information you tell me at any time you want to. And then I 20 would just like you to introduce yourself. 21 22 L: // Okay, hehe. My name is and Fan... and working in China National Renewable Energy Centre 23 as head for International cooperation department. Maybe you know, eh, this center is actually, eh, 24 was born in the, China, eh in the Sino-Danish renewable energy development program in 2012 and 25 at that time, you know, I, worked, also worked in project management office in chart of, you know, 26 eh, the management issues. Yeah I think //. 27 28 S: hehe, yeah, that is it. 29 30 Pauses 31 32 S: Okay, then I would like you to start by hearing what the key words of the bilateral Sino-relation 33 seen from your perspective? 34 35 L: the keywords? Ehm//. 36 37 S: yeah, 38 39 L: // Ehm, I think the key words for the Sino-Danish relation should be the win-win. Why I say 40 that? I think, You know, because based on this cooperation we actually, have had, you know, had a 41 lot of success regarding the cooperations so I think the final result is win-win. 42 43 S: Okay 44 45 L: //So I much appreciate this work 46 47 S: yeah, and do both Denmark and China benefit from the relation equally?

L: // Yeah, I think so, eh actually you know, at the start maybe from the, from the founding you would think that Danish government contributed like 1 million, ehm 100 million, eh Danish croner but actually I think, you know, its not, eh, like the money given to, to China government I think finally it's a equally benefit, you know some Danish ministries, ehm industries or, you know, research institutions or organization they actually, you know, start to know China's situation and they know their, eh you know, commercial or other cooperation opportunities in China. I can see, many of the Danish industries or research institutes or university, it is the first time, and they, you know, they establish some cooperation with the Chinese stakeholders based on this program

S: yeah

L: so I think finally, you know occurs in return China industry also benefits and from the management or technology innovation concept I think that's equally benefit.

S: Okay. And China interacts with many countries. How essential is the Sino-Danish relation in manners of energy?

L: //ehm, I think energy is very special for both countries. As you know China is, you know, like the top one energy, and, energy consumption and production country, ehm. Also you know for Denmark, is, although you know from the territory its small compared with China, but you can see that Denmark is so kind of pioneer for the energy transition, the energy system, especially when the 2050 strategy established or you know announced to the world actually government China is quiet impressed and they think they should also you know, now the energy transition is same importance for all the world for all the countries, so I think this is quiet essential for this establishment of the relationship.

S: And the ongoing transition and new politics on energy and renewable energy is China is often questioned by especially Western Media – do you think that this Sino-Danish relation could immerge results that would change this perception?

L: //ehm, I think of course, because, you know, from the cooperation China understand more about the pioneer countries energy transition process and concept and even some demonstration projects best practice, so of course China is quiet different from other country they cannot just copy from any of the countries or even EU or even America so I think, ehm, you know, chinese, always keep quit different way of determinate itself to the world so I think it quit different from western countries way that is why sometimes she will be, you know, China will be, very, you know, misunderstood, some, to some stand. So I think, you know, during this cooperation, China is, maybe is more kind of presenting the position or the situation of China's energy transition in a more kind of sound way to connect to the international community at least in the renewable energy sector so, maybe for other energy sector I cannot say yes or now, but for the renewable energy sector of course you know there is more or much better presence of //

S: okay.., energy?

L: // yes

S: Do you think that a change in China's energy usage is possible with help from the Danish experience?

L: //ehm, yes I think both from supply side and usage, or you say consumption side, ehm, but maybe more on the supply side because from the consumption side this IED program or even the original WED-program this cooperation is maybe more focused on the supply side from the consumption side, you know, we, actually, it has different, you know, we have that, you know, we have different sector residential, commercial or industry or transportation and also we have the MD-use as very in a scatter, like the individual, like the institutional so I think, of course it can help people to understand I think especially with the WED-program they have, they have more, how do you say, activity or determination activity on the usage side, like to the school students or university students, but maybe for the IED program it is more focused on the national institutional setting up or capacity building but anyway, you know I don't know what kind of extend they can be influenced but of course it really influence the usage side.

S: Okay. And if you should describe China's interest in cooperating with Denmark and the other way around – how would you define the following four interest? With the cultural, the political, the economic and the security interest. If you start by defining the cultural perspective and interest of both Denmark and China in this cooperation.

L: // Oh, this is very high and political question. I think maybe I am not the right person to answer that. But if I can just say, you know, that this renewable energy cooperation I think maybe the kind of economic, eh, is more, you know, can get more weight among the four factors because renewable energy as part of, you know, how do you say, strategic energy in the future energy system of course it can play more roles to address China's environmental issues to address China's current change issues so all this actually contributes to China's, well, healthy economic growth. I think maybe second could be like cultural because sometimes why, we do not understand each other we can not exchange each other, I think more or less it can focus on the culture issues. But here I think we have very good cultural exchange. You know, here I should also prioritize our chief expert Kaare Sandholt he is quit like a very good bridge to, you know, bridge to china's experts and also Danish experts. Because sometimes we have very different cultural understanding but actually we need someone to bridge. I think from Danish side he is really good, a wonderful guy to bridge this cultural understanding. Then of course security and then political of course all this, are important especially this political framework is quit important to this, to this, cooperation relationship and because this cooperation has been acknowledged by both political framework, the two ministries and give a lot of support and provide this MOU umbrella and then, you know, this high-level visit is quit tense, intensive, so I think that's is of course very important. Ehm, So I think this cooperation actually could be sustainable in the future even without founding or something but still now, you know like, CNREC has very good cooperation with DEA and the two ministry still keep the sustainable, you know, high visit to each other so I think the program itself contribute a lot more than it is expected.

S: okay. Denmark and China a far apart in size as you mentioned before also development, what is the fundament of the relevance of the bilateral Sino-relation in manners of energy?

L: // yes, ehm, So that is also something I mentioned, you know, from the territory, the two
 countries are quit different. China is more like the EU country in a map, the whole EU of course,
 but of course, you know, we don't want to copy any country that I also mentioned, but something
 must be, you know, how do you say, interpreted well because in Denmark pioneer countries, as a

pioneer country in renewable energy development in energy system innovation and energy system process still you have a lot of things we want to know and such thing can be well interpreted.

Like you know, China want to develop more wind turbines and more wind-power, ehm, farm but still we have a lot of issues to transfer this wind-turbine-energy to our and use this electricity so some reasons like, you know, ehm, the transport, transporting this wind-power from the remote area to the low center area, like, you know, south east, eh, regions or provinces, or you know, or maybe some peoples understanding think wind-power is not so good electricity not good quality electricity, you know, actually to address such issues we need to learn Danish history of developing renewable energy. Maybe we are different but still some barriers or difficulties you were faced with maybe just our problem or issues we are now faced so we can avoid some things we can get some solutions, suggestions or, you know, enlighten by your even failure story. So I think, you know such things is just be well interpreted to Chinese context then we can understand, you know, how we can learn from you instead of copying from you. So I think, ehm, so if I can say the relevance of the bilateral relation is the good interpretation of Danish experience, is more important even we are different, you know countries from size //.

S: And China's national interest in energy is influences by the lack of energy supply. What is the main driver behind Denmark's national interest in the cooperation from your point of view? What do Denmark get out of the relation?

L: //ehm, what is Denmark, I think for, you know Denmark, from my understanding, maybe Kaare can give you more concrete, but for me I think, you know, Denmark has very good technology and also the Denmark government, government Denmark would like to increase or even, or maintain the Danish industries competiveness in the world market.

So they want to, how do you say, export this to, to to, to the very good market. China is a very good and large market, or target market for any of the countries so based on this cooperation I think the Government Denmark would like to use this, how do you say, cooperation to increase the Danish industries competiveness of course.

For China you know, because of the, how do you say, the environmental issues or the coal dominant energy mix is quit a big issue to be addressed and Denmark has a very good clean energy and renewable energy technology so then the demand and supply actually quit good, quit well linked. And, so we have a common interest - why not cooperate? So I think it is very easily to connect it

S: how is China's national interest and policy-making in renewable energy persuaded by this relation?

L: // I think, you know, like Chinese government priority mainly reflected by the five year planning, as you can see, for energy of course it is also, ehm, you know, during the five year planning process actually a lot of this policy-making support, you know, mainly come from, like, the energy research institute or china national renewable energy center so the expert provide their policy-making support based on the some, their understanding about the international experience and also the industry. Ehm, you know, based on this cooperation of course many of the Danish experience were introduced to the experts even, you know directly introduced to the officials of the government, like NEA, and then, you know like, some district heating technologies or this kind of system solution, actually such concepts more and more influence the NEA officials and also this centers experts like the wind power, you know, well integrated with other technologies can, you know, be used for district heating something also even now the power market liberalization in china

192 also be strongly influenced. I can see many of the high level visits from NEA and their first stop 193 they will prioritize Denmark //.

194 195 S: yeah,

196 197

L: // so I think that is very, you know, promising signal for people so they appreciate the Danish experience. So especially this official visits can be, you know, more reflecting this kind of process.

198 199 200

S: Okay. And how will the development in the energy sector and the politics affect the future of energy in China?

201 202 203

204

205

206

207

208

209

210

211 212

213

L: // ehm, I think, of course, you know like, China, Chinese coal dominate energy mix, it should be a long term, even, you know, we have the dirty coal but we want to be more clean and the blue sky, but because we have the energy mix air we can not change that emedially we have to, you know change step by step or we can accelerate it but still we need more years than other countries.

I think, you know, this energy sector reform or we now, we say power market reform of course already be raised in very high level like, you know like, state council issued this directive and issued this regulation and say, and give the market, and give the people a signal that the power market should be liberalized and should be integrated more clean energy. So I can see this of course will influence will guide the future of China, for the energy sector, so we now are also now mentioned about energy system transition especially late last year we had the energy transition forum in Zhujou, China, you know, I think you know, beside this cooperation also we extend this cooperation to more countries, like with Germany.

214 215 You know, our German colleges now actually, learn from our Danish colleges and they put office 216 here and to facilitate more close dialogues so all the world and actually the pioneer countries now 217 you know raise their signal to the world they want more actions to the energy transitions process. 218 So now China should be part of that and should not be lack behind so I think of course this future 219 should be, should be kind of clean and sustainable and affordable energy future in China. That is our blue print in future.

220

S: And will the Danish experience be able to contribute to a real change in energy usage in China?

222 223 224

225

226

227

221

L: ehm, yes of course it should be a long process, of course, but you know in the past four-five years based on this cooperation we already influenced the China's policy-making process and such as many of the regulations as mentioned about some solutions these solutions are actually are, I think, enlightened by Danish or German experiences I think of course in future this trend should be continued //.

228 229 230

S: And what are the political incitements of cooperation in policy making in energy?

231 232

233

234

235

236

L: // political incitements. Ehm, I think, government actually quite acknowledge this cooperation and they think you know, because this like this WED-program or RE-program they are under the umbrella, the MEU between the two ministries so of course you know, ehm, any of the priorities, in the activities of the program always be acknowledge by both ministries, so I think of course the policy making in energy, I should concrete say renewable energy, and actually are, you know, are you know, influenced, have been influenced by this cooperation to some extend.

S: Okay. And is it possible to sum-up the benefits of the relation from a Danish perspective? –From your point of view.

L: // I think, first is based on this cooperation actually Danish technology and experience have been
 well introduced here and many of the enterprises, or research institutes or universities they actually
 enter into Chinas market, I know, I think, before the program some of them had not this kind of
 entry into Chinese market.

And second I think, as the program, you know set from the Danish side of course, you know, this market had their position and they, actually you know, keep their competiveness in China here and then I think,

the third one is, I think this program actually contribute a lot to the China and Denmark full around cooperation, especially the cultural exchange and its not just the energy issues and its also about the person to person, and institution to institution many of the think tanks between the two countries many of the industries or enterprises establish some cooperation relationship and they understand each other more so I think it is not only for China's capacity building its also another understanding about capacity building for the Danish stakeholders

I think the fourth should be, ehm, I think we we have more, how do you say, more solid foundation for other cooperation maybe that is more than energy sector because more people know each other so I think, yeah that's some benefits.

S: And is there anything else you would like to add towards your perspective and understanding of the bilateral Sino-Danish relation?

L: Ehm, yeah, I think I already talked a lot so maybe that already should be covering for all the things I would like to say.

S: Okay. Well, then we are about to be done with the interview, and the interview will be treated, will be transcribed and be part of the knowledge and material conducted in the thesis, which will be handed in in may and if you interested I can hand you a copy and forward it to your contact email. And also I would like to appreciate your answers and say thank you a lot for participating in this interview.

272 L: Oh, it is a pleasure... so when is your//.

B: Professor Zhang Xiliang is Excusive Director of the Institute of Energy, Environment and Economy at Tsinghua University, Beijing

- 1 S: Sissel Mai Ødegaard: Interviewer
- 2 Z: Professor Zhang Xiliang

3

- 4 S: well, I will begin by introducing myself, my name is Sissel Mai Ødegaard and I am currently
- 5 finishing my master degree in development and international relation with specialization in
- 6 China and International relations. The master is a joint program offered by Aalborg university
- 7 together with University of international relations, Beijing.
- 8 The purpose of this interview is to clarify how the you understand the importance of the the
- 9 Sino-danish relation and how you define the importance of the national interest in the
- 10 relation. The interview will take around 30 minutes and the interview will be recorded on in
- order to support the memory and the further work with the thesis. The interview will be
- 12 treated confidential and the things mentioned in the interview will be anonymous or specified
- according to what you will agree with and my role will be limited to asking the control of the
- 14 electronics and asking the questions.
- 15 If you have any questions or doubt about what is meant with any question, before we proceed
- 16 feel free to ask me.
- 17 The interview is voluntary and you can withdraw any information you tell me at any time you
- 18 want to.
- 19 Since we are short on time I will jump directly to the fourth question.

20 21

- S: The ongoing transition and new politics on energy and renewable energy in China is often questioned especially by Western media do you thing the Sino-Danish relation could
- immerge results that would change this perception?

25

- Z: Can really, can a lit, can create a tenderable outcomes and rich benefits for the two nations,
 particularly the two industries, the industry, the renewable energy industry, so in China and
- in Denmark.
- 29 For example for China to transfer some technologies here and how to make it use. And for
- 30 Danish companies and investors because it where the market is and the largest potential. So
- 31 this program also his program also help to formulate some specific and matters to address the
- barriers, how to say, to the foreign companies into invest and start business here in China and also the technology transfer, I think it is really makes sense//.
- 34

35

39

S: Yea, and do you thing a change in China's energy usage or consumption is possible with help from the Danish experience. So will it actually change something?

energy utilisation so we are very much look carefully and, at what is the successful stories and

- help from the Danish experience. So will it actually change something?
 Z: //Aah, yea, so I, eh, we, I think the Danish is a leading nation, so, in terms of in renewable
- also including how to encourage the renewable energy consumptions and I think in this
- 41 contexts it also very, make a lot of progress here in China particularly how to avoid the
- 42 criteriaments, the craiteriament of wind technology . What are the technology options and
- 43 politic options to work together to avoid the wind criteriaments. You know wind is very
- important and is a big problem right for China's renewable energy development use //.

S: And if you should describe China's interest in the cooperating with Denmark and the other way around by defining for instance the cultural benefit, the political benefit, the economic benefit and the security benefit of the cooperation in energy. Is that possible to line out?

Z: (Laughs) //Ok, I think the culture is also very important the cultural context for the, changing the behaviours of the consumers and the consumers s o and for example Denmark, EU the citizens, and the people, so they are including the Italians, they are very much, pay a lot of attention and also have to the environment protection they have a very good habit to, how to say, to protect the environment. So I think, this is also, and eh, in Denmark and the Netherlands the people usually take public transportation and public transport so I think this kind of message has been transferred to China through the collaboration, so of course//.

(Pauses)

//The political, I think is mutual. Your nation is democratic nation so that the policy making process and political dynamics is different from here so and through the collaboration so we can compare and learn from each other //.

S: Okay, and what would you say is the main driver behind the cooperation between Denmark and China.

Z: //So I think maybe two, maybe three. So one is both China and Denmark has obligation to protect the earth to protect earth so we have to do something for all, the future, grandchildren and for the next generation and we need to put earth sustainability. Second, I think the collaboration in energy technologies also promotes and creates new opportunities for the business development and trade also helpful for the recovery of the economy. And the third, is I think is also very important is the culture that is very helpful for the people to understand for example at least we can, how to say, improve the understanding of the researchers and business people and also some at least some areas it means a lot of help //.

S: And Chinas national interest in energy is influenced by the lack of energy resources or at least there are not enough resources. What would you say the driver from Danish side if you should se it from your perspectives the Danish interest in cooperating with China be?

Z: //Um, I think the drivers and I think in terms of the drivers here in China so yes we have in terms of pr. capita China's term China's energy resources is not reached but you know we also we have a lot of coal so in China how to, how to say, promote the substitutions of the clean energy resources for coal which is the big issue why we have also attached great importance to the renewable energy //.

I think for the collaboration the very important driver from the Danish side is to promote, how to say, to look for new business opportunities and also because China has a big market there and for the Chinese side we very much want to learn and what, Danish is a leading nation in term of renewable energy technology development and utilization so we would like to learn so what kind of technology is suitable to China and what kind of policy, what is exercise to, which could be enabled to be renewable //.

93 94 S: And how will the development in the energy sector and politics affect the future of energy 95 in China? 96 97 Z: //: Parten? 98 99 S: How will the future of energy look like in China? 100 101 Z: // Oh okay, you know so in China in the phrase of the New Normal, the economy, you 102 understand the term, terminology, so that means that the China's energy demand 103 consumption and the future energy consumption is not as much as high as fast as expected, 104 before, previously so I think in this context I think the focus will be the replacement of the 105 coal by renewables and other non-fossil fuels the message is first the stage of energy consumption is not as big as expected and predicted before. The second if you look at the past 106 107 three decades the energy substitutions is not so obvious so I think most of the energy system 108 transformation came from the energy efficiency improvement but in the future it will be big 109 change I think and the energy substitution and particularly that means the road of alternative 110 energy will be increasing substantially that means renewable energy could be play a more 111 role than before //. 112 113 S: And the political incitements of cooperating in policymaking in energy what are they if you 114 should outline them shortly. In the political making of the energy policy, what are again the 115 main drivers? 116 117 Z: // The main drivers, eh, I think first we need the Chinese economy, how to say, to have a secured energy supply for the growing of the china's economy and also for the people to have 118 119 a better livelihood so this also need a lot of energy so we need to secure. The second, we have 120 to address the environmental issues particularly the air pollution and water pollution so associated with the energy utilization. Third, is the climate change because China already 121 122 made a strong commitment for the international community so would like to harnish, we 123 need, how to say, to address the economic change and navigate the Chinese carbon dioxide 124 emissions I think these are very important drivers //. 125 126 S: And is it possible to sum up the benefits from this collaboration from a Danish perspective – 127 with your eyes, 128 129 Z: // From a Danish perspective? 130 131 S: Yes, how you see it? 132 133 Z: // Yes, first it will be how to create more opportunities – business opportunities and 134 investment opportunities for the Danish industry and the business society. And also I think optimally through the collaboration so the Danish ordinary people and also the Chinese 135 136 people we can, how to say, can enjoy the collaboration because the environment will be very 137 protected and particularly the climate change so for the future generation

139 Pauses

140	
141	I hope you can understand //.
142	
143	S: Is there anything else you would like to add towards your perspective on and
144	understanding of the Sino-Danish relation?
145	
146	Z: // Ehm, Okay, I think the Sino-Danish relation delegates, I think any collaboration should be
147	win-win yes, so if this is win-win then, so it could be implementable and also be sustainable so
148	I think this is a renewable energy collaboration initiative is a very good example and maybe in
149	the future we can learn and we can still think and review the process of what kind of
150	collaboration could be really beneficial for the two nations and people //.
151	
152	S: Well, that is it. Thank you so much.
153	
154	Z: Thank you, if you have any further questions you can send me email,
155	
156	S: Thank you so much for your answers and thank you.
157	
158	

C: Comments from Thomas Shapiro-Bengtsen, the energy attaché counselor at the royal Danish Embassy in Beijing

• I would like to start by hearing what the keywords in the bilateral Sino-Danish relation are seen from your perspective?

Demand-driven is a key-word in Sino-Danish cooperation on energy in the sense that we always look for a clear commitment and demand from our Chinese partners.

- Do both Denmark and China benefit from the relation equally?
 - I believe so. From a Danish perspective we hope that we can assist China in its transformation to a greener, more sustainable society. This transformation is very high on the political agenda in China and the need to transform is imminent especially due to the issues regarding air pollution.

- China interacts with many countries, how essential is the Sino-Danish in manners of energy?
 - In Denmark we have quite unique experiences when it comes to transforming the energy system. We have shown that it is both technically and economically possible to phase in a large amount of fluctuating, renewable energy without compromising the security of supply. And our Chinese counterpart's are very interested in learning more about the Danish experiences when it comes to renewable energy and energy efficiency. I believe that the Sino-Danish cooperation on energy is one of the most successful areas of cooperation between the two countries and despite we are a small country we are able to have high-level meetings annual or even biannually.

 The ongoing transition and new politics on energy and renewable energy in China is often questioned especially by Western media – do you thing the Sino-Danish relation could immerge results that would change this perception?

The aim of our bilateral cooperation with China is of course for us to have an impact on the transition in China and to work together with our Chinese counterparts to ensure an ambitious transformation of their energy system. That China succeeds is important both for China and the global effort to mitigate climate change. And it is my impression that the Chinese cooperation partners and ministries we engage with have a strong willingness to transform the energy system – and to have a dialogue on how to do it. That China wants to transform is underscored by several announcements in the past year regarding important topics such as reformation of the power sector, agreeing to the COP21-agreement and efforts to minimize the further development of coal-fired power in China.

What is reflected in the Western media (I believe) is to a larger degree the fact that China as the biggest emitter of greenhouse gasses is often (rightly) pointed out as one of the key countries if we are to solve the climate change issue. However the media might look at it from a static perspective where they do not take into account the ongoing reform agenda in China as well as per capita measurements. With that being said I actually do not think that there in general is an issue of Western media misinforming or being critical towards the changes happening in China regarding energy.

Do you think a change in China's energy usage is possible with the help from the Danish Experience?

48 49		I am certain that there is a lot to be gained for China by looking to Denmark and other ambitious countries for inspiration on how to conduct the transition of the energy
50 51 52		system. And one concrete example is that CNREC last year together with Energy Research Institute published a report that showed that it would be possible for the Chinese energy system to be based on as much 60 pct. renewable energy in 2050.
53 54 55	•	If you should describe China's interest in cooperating with Denmark and the other way around – how would you define the following four interest. Cultural,
56 57 58		political, economic and security. Starting from the cultural perspective of the interest of both? N.A.
59 60	•	Denmark and China are far apart in size and development. What is the
61 62 63	·	fundament of the relevance of the bilateral Sino-Danish relation? Denmark and China shares the ambition of a future where renewable energy should be a main component in the energy system.
64	_	China's national interest in an arguing influenced by the lock of an arguments
65 66 67	•	China's national interest in energy is influenced by the lack of energy supply. What is the main driver behind Denmark's national interest in the cooperation? To be able to punch above our weight when it comes to bringing down the emission of
68 69		greenhouse gasses globally by increasing the knowledge of what you can call the "the Danish energy model".
70 71	•	How is China's national interest and policy-making in renewable energy
72	_	persuaded by the bilateral Sino-Danish relation?
73		Through sharing of experiences from Denmark regarding policy frame work – and
74		especially the importance of long term planning. Regarding the latter especially the use
75		of scenario analysis has been a major part of the cooperation with China based on the
76		work at the China National Renewable Energy Centre (CNREC).
77 70		
78 79	•	How will the development in the energy sector and politics affect the future of
80	•	energy in China?
81		A transformation of the sector is absolutely essential for China if it wants to address
82		the serious air pollution issues since the burning of fossil fuels is the main cause and in
83		order for it to reach the goals set out towards 2020 and 2030.
84		
85	•	Will the Danish experience be able to contribute to a real change in energy usage
86		in China?
87 88		I truly hope so. I believe that in our cooperation with our Chinese counterparts we are working together with them on some of the key issues they need to solve in the coming
89		years.
90		years.
91	•	What are the political incitements of cooperation in policy-making in energy?
92		I touched upon it in one of the earlier questions but basically China is interested to
93		learn how we have set up the institutional framework around the transformation of
94		the energy system. We have done a lot of things very well in Denmark, but along the
95		way we have also made mistakes. All of it is something that China seems eager to learn
96		more about.
97 08	_	Is it nessible to sum up the honofits of the veletion from a Danish newscation?
98 99	•	Is it possible to sum-up the benefits of the relation from a Danish perspective? N.A.
100		11/2.16
101	•	Is there anything else you would like to add towards your perspective and
102		understanding of the bilateral Sino-Danish relation?
103		Nope
104		

Appendix 3Sources used in analysis and discussion review with CARS-Method

CARS- METHOD

Citto METHOD					
Credibility	Accuracy	Reasonableness	Support		
To provide the best evidential material with elevance for the thesis the ource must come from a rustworthy author, newspaper, university or imilar.	The material applied as empirical data must be updated and contemporary to secure the most applicable outcome of the thesis.	The sources need to have an objective and reasonable way of approaching the theme of the thesis. By using reports and articles created by humans, the reasonableness exists within the reality the sources create because of the authors' understanding of the world.	Documented supply, listed sources and available corroboration is essential to triangulate the data, wherefore the source must provide evidence of origin		

Name in	Title of	С	A	R	S
document	document				
Schiavenza	"How	Source: The	Article from	American	Article is
2013	Humiliation	Atlantic.	2013.	source article	cataloged in
	Drove Modern	American	Historical	talking about	the websites
	Chinese	Magazine	background	the history of	history
	History"	since 1857.	of China and	China in a	making it
		Winner of	understanding	neutral way.	easy to
		National	of policy.		access.
		Magazine			
		Awards,			
Varin 2009	Humiliation,	Source:	Paper from	French master	Paper is
	National	Culture et	2009, study	student	accessible
	Identity and	société, La	on the	dissertation.	through the
	Foreign Policy:	revue toudi.	National	Use of relevant	archives of
	A Study of	Upload of	Identities	theories in	Culture et
	France and	paper to the	significance	relation to the	société, La
	China	London	for the	understanding	revue toudi
		School of	foreign	of theme.	
		Economics	policy.		
		and Political			
		Science.			
Zhang 2013	"China's	Source:	Article from	Chinese	Article
	Traditional	Carnegie-	2013.	source, Zhang	accessible
	Cultural Values	Tsinghua,		Lihua –	from the

Hu 2005	and National Identity" Build Towards a Harmonious World of Lasting Peace and Common Prosperity	Center for Global Policy. Source: United Nation Organization archive on Speeches.	From 2005 speech from summit in New York.	resident scholar at center for global policy. Former president of China.	website archive of Carnegie- Tsinghua, Center for Global Policy Accessible though UN website archive.
Thomsen 2015	"Are you responsible for China's pollution?"	Source: World Economic Forum. Recognized international organization.	Published 2015 in relation with COP21.	Stephanie Thomson, editor at World Economic Forum.	Accessible via World Economic Forum archive.
Yan 2003	China's National Interest	Source: Translated from Monterey Institute of International Studies	Published in 2003 about China's national interest	Original author: Dr. Yan Xue- Tong, Dean of Institute of Modern Politics at Tsinghua University, China.	Available as PDF translated from Monterey Institute of International Studies
Xi 2015	"Work Together to Build a Win- Win, Equitable and Balanced Governance Mechanism on Climate Change	Source: China Daily website.	Published in relation with COP21, 2015.	President Xi Jinping speech.	Accessible via China Daily website archive.
Harvey 2015	"Paris climate change agreement: the world's greatest diplomatic success"	Source: The Guardian. Official British Daily newspaper.	Published December 2015 in relation with the COP21	Fiona Harvey, journalist of the Guardian.	Accessible via The Guardian website archive.
CAT 2015	Climate Action Tracker	Source: Climate Action tracker official	Online update version of nation ranking.	Official description of the climate actions.	Accessible from the official CAT website.

		website.			
Koschyk 2015	"COP21: China's climate efforts far from sufficient"	Source: Deutsche Welle's official website.	Article published 2015 about China's Climate efforts.	Maximiliane Koschyk journalist at: DW, German international broadcaster.	Accessible from the official DW website.
Coca 2015	"The COP21 Deal: What does it Mean" for Asia?"	Source: The Diplomat. International newspaper covering the Trans-Asia issues with base in Japan.	Article published in 2015 in relation to COP21	Nithin Coca, journalist at The Diplomat.	Accessible from the official The Diplomat website archive.
Mearsheimer 2002	The Globalization of World Politics – An Introduction to International Relations,	Source: John J. (2002) in "Realism," in John Baylis, Steve Smith and Patricia Owens (eds.) Oxford University Press.	Book from 2002 in international relation.	Acknowledged author in international relations.	Accessible as book: The Globalization of World Politics – An Introduction to International Relations
Li 2015	"Prospects of China's Foreign Policy."	Source: Lecture, China's Foreign Policy: Theory and Practices,	Class material from course in China's Foreign Policy.	Professor at University of International Relations, Beijing	Accessible as file from classes at University of International Relations, September 2015.
Denmark- China 2008	A mutually beneficial Partnership.	Source: Official government report from The Ministry of Foreign Affairs of Denmark.	Report from 2008 about the partnership between Denmark and China.	Official report from: The Ministry of Foreign Affairs of Denmark.	Accessible via The Ministry of Foreign Affairs of Denmark website archive.
Gracie 2015	"China's about- face on climate change"	Source: British Broadcasting news, since 1922	Article from 2015 about China facing climate change	Carrie Gracia, China editor at BBC	Accessible from BBC NEWS China archive.

WHO 2015 Lam 2012	Climate and Health Country Profile – 2015, China "Environmental refugees on the rise"	Source: World health organization. Source: South China Morning Post, Hong Kong	Country profile of China Article from 2012, about social issues connected to	Official statement of WHO Andrew Lam, journalist at South China	Accessible via WHO country profile site. Accessible via South China Morning post
Phillips 2014	"Wealthy Residents Depart Chinese Mainland In Search of Clean Air"	news paper Source: Think Progress Organization's website, American political blog	Article from 2014 on social issues connected to pollution.	Ari Phillips, reporter at Think Progress, Think Climate section.	Accessible from Think Progress, Think Climate section.
Hong 2015	"China's 13 th Five-Year Plan (2016-2020) Redefining China's development paradigm under the New Normal	Source: China's Policy Think Piece Series Issue at Fung Business Intelligence Center	First draft of the 13 th FYP translated into English. November 2015	Wendy. Cheung, Denise, Sit, David,	Accessible as PDF from Fung Business Intelligence Center cataloged China Policy Think Piece issues.
Danish Energy Agency 2015	The Danish Energy Model – Innovative, Efficient and Sustainable"	Source: Official Danish Agency.	Report from 2015.	Product of an official agency on Danish energy.	Accessible from the official website.
Denmark in China	"Sino-Danish relations" in Denmark in China — ministry of foreign affairs of Denmark	Source: Official website of the Danish Ministry of Foreign Affairs.	About the Sino-Danish relation FAQ site.	Official description of the relation.	Accessible from the official Foreign Ministry website.
The World Bank 2015	"Overview - China"	Source: Official website of the World Bank	FAQ about China according to the World Bank archive.	Official description of China.	Accessible from the official website country profiles.
Delman 2014	"The Danish RED program and China National	Source: RED Program technical review	Official report on the RED and CNREC	Jørgen Delman, Professor at University of	Accessible as PDF via CNREC

	Renewable Energy Centre (CNREC)"	mission	establishment	Copenhagen	
Li 2013	Prospects for China's Economic development in the next decade	Source: China Finance and Economic Review SpringerOpen Journal, no. 1.	Review: Department of Development strategy and Regional Economy Development State Council research center.	Li, Shantong, Wu, Sanmang and He, Jianwu (2013)	Accessible as PDF from SpringerOpen Journal.
Johnston 2015	"China's Economy: Transition to Sustainable Growth"	Source: Investopedia, internet site devoted to investing education, based in New York	Article from 2015, site last update 2016.	Matthew Johnson, researcher and editor at Investopedia.	Accesible from Investopedia website under topics: China's Economy
Mastny 2010	"Renewable Energy and Energy Efficiency in China: Current Status and Prospects for 2020"	Source: Worldwatch institute globally focused environmental organization. Based in Washington D.C.	Report from 2010 about the status and prospect of renewable energy.	Editor: Lisa Mastny	Accessible as PDF from World Watch Institutes website.
Liu 2006	"China's Energy Security and Its Grand Strategy"	Source: Lecture on China's Energy Security and Its Grand Strategy	Class material from course in China's Foreign Policy.	Liu Bill, professor at University of International Relations, Beijing.	Accessible as file from classes at University of International Relations, September 2015.
McCrone 2015	"Global Trends in Renewable Energy Investment 2015"	Source: Frankfurt School – FS- UNEP Collaboration Centre	Publication on Global Trends in Renewable Energy Investments 2015.	Editors: McCrone, Angus. Ulf Moslener, Usher, Eric. Grüning, Christine, Sonntag-	Available from Frankfurt School – FS- UNEP Collaboration Centre's website

				O'D .	
				O'Brien,	
		~		Virginia	
DWEA 2015	"China	Source:	Official	DWEA	Accessible
	demands	Danish Wind	article about	website editor	via DWEA
	Danish	Export	Sino-Danish	and the official	website under
	expertise"	Association	cooperation	view from	News and
			from 2015	source.	Press
Ministry of	"Danish Export	Source:	About the	Official	Accessible
Foreign	of Green	Official	Danish	description of	from the
Affairs 2015	Energy	website of the	Export of	the export.	official
	Technology	Danish	green energy		Foreign
	Sets New	Ministry of	FAQ site.		Ministry
	Record"	Foreign			website.
		Affairs.			
Lauritzen	"Danish export	Source: State	Article from	Dan Howis	Accessible
2014	boom in green	of Green,	2014 about	Lauritsen	via State of
	energy	Danish. A	the new	communication	Green News
	technologies"	public-private	energy	manager at	archive.
		partnership	agreement.	State of Green	
		founded by the			
		Danish			
		Government			
		and private			
		companies			
		with interest in			
		energy.			
Wong 2014	"China's	Source: New	Article from	Edward Wong,	Accessible
	Climate	York Times,	2014 about	journalist at	via NYT Asia
	Change Plan	since 1851,	China's	NYT	Pacific
	Raises	American	climate		archive
	Questions"	newspaper.	change plan		section.
EIA 2015	"China -	Source:	Country	Official	Accessible
	Overview" in	Energy	profile of	description of	from the
	Energy	Information	China	the China.	official EIA
	Information	Administration	according to		website.
	Administration	official	EIA.		
		website.			
Vien 2015	"The Grand	Source:	Article online	Thomas Vien,	Available
	Design of	Strategic	June 2015.	lead analyst.	from Strategic
	China's New	Forecasting,			Forecasting
	Trade Routes"	American			Inc. (Stratfor
		publishing			Enterprises)
		company			website
		founded in			
		1996			
Swanström	"The Security	Source:	From 2015 on	Dr. Niklas	Available as
2015	Dimension of	Institute for	the China-	Swanström,	PDF from
	the China-	Security &	Central Asia	Director of the	United State

N 10014	Central Asia Relationship: China's Military Engagement with Central Asian Countries",	Development Policy. United States Congressional Commission.	Relationship	Institute for security and development policy.	Congressional Commission website as archive file.
Masoud 2014	"Central Asia: A region of Strategic Importance to China	Source: International Policy Digest, online non- governmental organization American magazine since 2011.	Article from 2014 about the importance of Central Asia to China.	Fahim Masoud, journalist at international Policy Digest with educational background in International relations.	Available from International Policy Digest website.
Grieger 2015	China's leading role in the Shanghai Cooperation Organization	Source: European Parliament briefing 2015	EU briefing 2015.	Gisela Grieger, EU briefing.	Available via The European Parliament online archive.
Mclean- Dreyfus, 2015	COP21, China's role and developed nations' obligations as reported in Chinese media	Source: The interpreter, independent nonpartisan think tank in Sydney published by Lowy Institute for international Policy	Article from 2015 based on comments from Chinese media	Marie-Alice Mclean- Dreyfus. Intern at the Lowy Institute's East Asia Program	Accessible via Lowy Institute for international Policy website, the interpreter archive.
Holt 2012	"Kina snart for dyr til at være 'verdens fabrik'	Source: Ingeniøren, Danish weekly magazine.	Article based on China role as the world fabric.	Julie Ring- Hansen Holt, journalist at the magazine.	Accessible via Ingeniøren's website.
Thomson 2015	Are you responsible for China's pollution?	Source: World Economic Forum, Swiss non-profit foundation recognized by Swiss authorities.	Article about the responsibility question in China's pollution	Stéphanie Thomson, editor at the World Economic Forum	Accessible via World Economic Forum's website
Daniels 2015	China's Energy Security	Source: The Diplomat.	Article about the	Owen Daniels is a program	Accessible via the

	Achilles Heal: Middle Eastern Oil	International newspaper covering the Trans-Asia issues with base in Japan	importance of China's import of oil from the middle east	assistant at the Middle East Peace and Security Initiative of the Atlantic Council's Brent Scowcroft Center on International Security. Chris Brown is a program assistant at the Atlantic Council's Global Energy Center	Diplomat website archive
Johnson 2015	China Tops U.S. as Biggest Oil Importer	Source: Foreign Policy an American news publication, founded in 1970 and focused on global affairs, current events, and domestic and international policy	Article about China's dependency on Middle East Oil and issues related to energy security.	Keith Johnson, senior reporter covering energy geopolitics for Foreign Policy	Accessible via Foreign Policy's website archive.

Appendix 4

Distributional view of sources utilized in analysis according to CARS (App. 3)

