# Master in Global Energy Transition and Governance

# Academic Year 2020/2021



ANNUAL REPORT



# **OVERVIEW**

The 2020/2021 programme of CIFE's Master in Global Energy Transition and Governance was composed of a diverse group of 20 students from 16 different nationalities. The itinerant programme offered students intensive courses in Nice and Berlin over three terms extending from 8 October 2020 to 24 June 2021. Afterwards, students were given the option of continuing their training with an internship of 2.5 to 6 months. The following table represents the timetable of the programme:

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The objective of the Master is to enable the students to comprehend and analyse:

- 1) International energy governance, the various political changes in different states and the numerous conflicts addressing energy management, supply and distribution;
- **2)** The EU's energy challenges and governance both in terms of fossil and renewable energies;
- 3) The transformations of national energy strategies towards low carbon economies;
- 4) Energy market evolutions; and
- **5)** Regional and local low-carbon energy strategies.

These issues are at the crossroads of different disciplines of social sciences: political economy, economy, sociology and geography.

The overall understanding of the complexity of the current energy transformations in the world requires a multidisciplinary approach. It is complemented by seminars, workshops and field visits with academic and professional experts in order to link theories and practice, as well as a simulation game based on an energy conflict with multilateral negotiation rounds.

The conclusion of the programme is based on the defence of a Master's thesis in June.

<sup>\*</sup> Due to the Covid pandemic, classes were held online from November to December and partly online throughout the second trimester. The study trip and field visits were replaced with virtual visits for the same reasons.

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# **ORGANISATION OF THE PROGRAMME**

#### THE MODULES

The curriculum was composed of five compulsory modules:

- A International Energy Governance and Conflicts
- **B** Economic Energy Governance and Markets
- C Governance of Clean Energy Transitions in the European Union
- D Cities and Citizens in the Energy Transition Process
- **E** Professional Skills and Methodology

The speakers were European academics, practitioners and experts in specific fields of energy. Various teaching methods and course formats were applied within each module.

# A International Energy Governance and Conflicts (71 ½ hours)

Module Director: François BAFOIL CNRS Senior Research Fellow, CERI, Sciences Po

Energy management, its availability, transport and distribution raise the core question of the role and importance of the nation state in relation to its economic, political or social partners, be they public or private, at the national or the international level. The concern is indeed about the security of supply and to this extent, the core question addresses the nature of the rule: one single rule, rule by law and rule of law. Is one type of rule more efficient than another one to manage the energy sector? To organise the firms? To develop the market? To distribute the resulting profits? And finally to solve the conflicts? In other words, in order to manage the conflicts which are all resulting from issues linked to national sovereignty, we questioned to what extent democratic regimes are more efficient than the authoritarian regimes. Is the nationalisation policy more efficient than the privatisation one? Are supranational regulations more efficient than national ones? These different questions legitimate the approach in terms of political economy which questions the economic interests of different social groups which support or challenge different political regimes.



#### TRIMESTER 1: NICE (41 hours)

#### François BAFOIL

- International Energy Governance and Conflicts
- Business Models (with Rachel GUYET)

#### Quentin BOULANGER Energy Consultant

■ The Geopolitical and Local Challenges of the Energy Community

**George TZOGOPOULOS** Begin Sadat Centre for Strategic Studies (BESA) Research Associate, Lecturer at the Democritus University of Thrace, Senior Research Fellow at CIFE

■ The New Energy Landscape in the Eastern Mediterranean Region

#### TRIMESTER 2: BERLIN (22 ½ hours)

#### François BAFOIL

■ International Energy Governance and Conflicts

#### Marc-Antoine EYL MAZZEGA Director of Energy Centre IFRI

 Eurasian Energy Market and Policy Dynamics: Trends Since 1990 and Perspectives After the Paris Agreement on Climate

#### Marc VALERI Associate Professor at the University of Exeter

Energy Challenges in Arab Countries

**Sébastien VELUT** Professor at the University of Paris 3 – Sorbonne, Director Institute of Latin American Studies

■ Energy Challenges in Latin America

#### TRIMESTER 3: NICE (8 hours)

#### François BAFOIL

■ International Energy Governance and Conflicts

#### Roberto CANTONI Research Fellow, University of Sussex

- Energy Transition in Africa and Energy Justice
- The World's Nuclear Industry: Where are We and What Lies Ahead? An Analysis of Antinuclear Movements



# **B** Economic Energy Governance and Markets (693/4 hours)

**Module Director: Laurent BAECHLER** Director of the MAEIS European Integration and Global Studies

The aim of this course was to help students understand the logics at work in energy markets, involving demand, supply and price determinants, as well as market structures, so that they could figure out the conditions in which energy transitions such as a switch from fossil fuels to renewables can take place.

Another fundamental dimension of this course was the analysis of the objectives and instruments of energy policies aiming at the regulation of energy markets, with a view to understand how governments try to control or orientate market trends in order to facilitate transitions from fossil fuels to renewables, from protected to liberalised markets, from centralised to decentralised markets.

All these points were illustrated by current examples of energy trends and policies at national and international levels. Finally, a focus was put on the articulation between energy and climate policies, as one of the ultimate goals of energy transition strategies, above energy security and competitiveness, is climate protection.

TRIMESTER 1: NICE (18 hours)

#### Laurent BAECHLER

■ Economic Energy Governance and Markets

Philippe CHARLEZ Energy Expert at Total

■ Energy, Growth and Climate

TRIMESTER 2: BERLIN (30 3/4 hours)

#### **Laurent BAECHLER**

■ Economic Energy Governance and Markets

Cristiano FRANCESE Project Manager and Senior Energy Consultant, EON

Digitalisation and New Business Models

**Alexander GUSEV** Senior Data Engineer at ClusterReply

Transforming the EU Electricity Market (E-Mobility, Digitalisation, Renewables)

**Divia HOBSON** Strategic Analyst, Joule Assets Europe

■ Innovative Financing of Energy Efficiency

**Daniel WRAGGE** Director of Political and Regulatory Affairs at EEX

■ EEX Berlin – Electricity, CO<sub>2</sub> and Hydrogen

Roman ZYUZEV Senior Professional

■ EEX Berlin – Gas Trading

TRIMESTER 3: NICE (21 hours)

#### Laurent BAECHLER

- Economic Energy Governance and Markets
- Oral Presentations

Lina LI Senior Manager, Adelphi

Carbon Markets

# **C** Clean Energy Transitions in the European Union (53 hours)

**Module Director: Gilles LEPESANT** Senior Researcher at CNRS, Géographie-Cités, Paris

Energy has been among the most rapidly developing EU areas in recent years, with crucial impacts on utilities, cities, regions, networks and national regulations. The course debated the factors that drive energy policy decisions in Europe and how security as well as economic and environmental challenges are intertwined in the fabric of the EU energy policy. It focused on the support provided by the European Union to the clean energy transition. It highlighted factors that influence the definition and the implementation of EU priorities regarding energy transition, thus helping to understand political economic factors that both inhibit and accelerate clean energy transitions in Europe. It discussed the drivers of the EU's sustainability agenda as well as the political, economic, social and technological challenges that need to be tackled in the race towards a low-carbon energy sector in Europe.

#### TRIMESTER 1: NICE (25 hours)

#### Gilles LEPESANT

■ Governance of Clean Energy Transitions in the European Union

**Tulie METTA** PhD Candidate at KU Leuven

■ Circular Economy: Towards Sustainable Supply Chains

Matthias WAECHTER Director General, CIFE

Political System of the European Union

#### TRIMESTER 2: BERLIN (24 hours)

#### **Gilles LEPESANT**

■ Governance of Clean Energy Transitions in the European Union

#### TRIMESTER 3: NICE (4 hours)

**Laurent JAMMES** CNRS-INSU, Scientific Deputy Director, Industrial Relations

■ The Hydrogen Economy



# D Cities and Citizens in the Energy Transition Process (76½ hours)

**Module Director: Rachel GUYET** Director of the Master in Global Energy Transition and Governance, Research Fellow at CERI-Sciences Po

Energy transition means deep social, political and economic transformations that affect local territories in Europe. The role they can play highly depends on the sectoral and political governance system of each European country. The course dealt with the new challenges faced by the local actors to deliver a range of adequate services in the framework of energy transition. It also addressed the way decision processes are made at different levels of governance. Finally, energy transition also questions the capacity of local actors to find a way to share the benefits of energy transition with all the communities, including fuel poor people. This question was also a key to understanding how energy transition enables poor remote populations to gain access to electricity in emerging countries, thus considering the social dimension of energy transition both in developed as well as in emerging countries.

#### TRIMESTER 1: NICE (27 hours)

#### Rachel GUYET

■ Cities and Citizens in the Energy Transition Process

#### **Quentin BOULANGER** Energy Consultant

■ The Geopolitical and Local Challenges of the Energy Community

#### TRIMESTER 2: BERLIN (31 hours)

#### Rachel GUYET

- Cities and Citizens in the Energy Transition Process
- Energy Diary Debate
- World Café on Information Campaign
- 24-Hour Challenge to Draft a Local Energy Strategy

Severin HORVAIS Coordinator Platform Energy Renovation, ALEC SQY

■ The Role of a Local Energy Agency: A Mismatch between a Standardised Energy Transition Policy and the Concrete Implementation

#### TRIMESTER 3: NICE (18 ½ hours)

#### Rachel GUYET

- Access to Energy Energy Poverty Workshop
- Feedback on the Energy Poverty Workshop

**Jean-Christophe CLÉMENT** Director of the Innovation, Director of the Innovation, Marketing and Communication Department – Dalkia

Smart Buildings for Smart Grids and Smart Cities

#### Marwan EL RHAYTI CEO, Planet +

- The French Solar Energy Market
- Visit to a Solar Installation

#### Laura KIM YEAT Engineer

User Behaviour in Clean Cooking Uptake

**Joel LELOSTEC** Offer Creation Director – Access to Energy, Sustainable Development at Schneider Electric

Informal Discussion with Schneider Electric on their Energy Access Programme

# **E Professional Skills Workshops** (118 ½ hours)

#### **Module Director: Rachel GUYET**

The Project Cycle Management Course was designed to provide students with a practical knowledge of the management methods, skills and tools for projects and programmes of international institutions, NGOs or similar bodies. We mainly focused on Project Cycle Management and the Logical Framework Approach, which is one of the management methods widely used at the planning, implementing and evaluating stages of most projects. Some important concepts for project formulation such as participatory development, ownership by stakeholders, institutional development, gender issues, environmental aspects and appropriate technology were discussed.

#### TRIMESTER 1: NICE (30 hours)

#### Rachel GUYET

- Individual Meetings
- Presentation of the Module
- Methodology: Presentation Skills & Energy Bills
- Thesis Methodology

#### TRIMESTER 2: BERLIN (78 ½ hours)

#### François BAFOIL, Laurent BAECHLER, Rachel GUYET and Gilles LEPESANT

■ Individual Thesis Meetings

Marine CORNELIS Executive Director, Next Energy Consumer

Advocacy and Public Affairs: A Toolbox

#### Nina FRAUENFELD

■ Individual Career Coaching Session

#### Mehmet Emre GÜR

■ Project Cycle Management

Mark YOUNG Negotiation Trainer, President of Rational Games, Inc.

Negotiation Techniques

# TRIMESTER 3: NICE (10 hours)

#### Rachel GUYET and Mark YOUNG

Negotiation Simulation Game





# **INTERMODULAR COURSES**

# **Conferences and Speeches**

- Opening Speech of the Academic Year: The Union in Corona and Post-Corona Times by Herman VAN ROMPUY President of CIFE, Former President of the European Council and Former Prime Minister of Belgium
- Inaugural Speech: Covid-19 as a Game Changer for the Energy Sector? by Marc-Antoine EYL MAZZEGA Director of Energy Centre IFRI
- The 18th Annual Energy Forum: Perspectives for Hydrogen at the European Level

# **Language Courses**

- French (Nice) with **Sandie CRAYNE** Communication Coach in French and English
- French (Berlin) with Katja SCHWARZBACH Language Tutor
- German (Berlin) with Katja SCHWARZBACH

#### Other

■ Thesis Methodology and Individual Thesis Meetings throughout the year



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# STUDY TRIP AND OTHER VISITS

# **Virtual Study Trip to Brussels**

A study trip to Brussels from 26 to 30 April 2021 was planned. Yet, due to the Covid-19 pandemic, the study trip was held online. However, we are very grateful that the experts we were supposed to meet in person in Brussels agreed to hold their presentations virtually. We missed the flavour of Brussels but nonetheless had insightful discussions with the experts of European energy policy. The following talks took place:

#### **Joachim BALKE** Head of Unit at DG Energy

■ Trilogue European Commission, Council, Parliament in the Area of Transeuropean Interconnections

**Cyril DEWALEYNE** Administrator at the European Commission

■ EU-Africa Cooperation

**Maud FOUCHER** Energy Attachée, French Permanent Representation to the EU

 Decision-Making Process in Brussels, French Energy Policies (Nuclear, Renewables, Hydrogen, Gas)

#### Andrea GALLETTI ENGIE

Presentation

**Peter HANDLEY** Head of Unit at the European Commission

Constanze VEEH and Ivone KAIZELER DG GROW

■ Critical Metals

Miguel HERRERO CANGAS Policy Advisor, Solar Power Europe Naomi CHEVILLARD Senior Policy Advisor, Solar Power Europe Thomas LEWIS Junior Policy Officer, Solar Power Europe

■ SPE Priorities Regarding the EU's Energy Policy

Petya PISHMISHEVA Capacity Building Officer, Covenant of Mayors

Overview and Presentations

**Pierre TARDIEU** Chief Policy Officer, Wind Europe

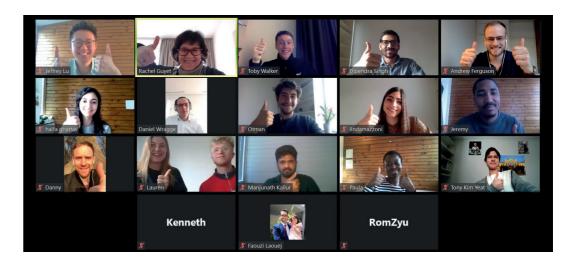
■ Policy Outlook for Wind Energy

Dirk VANSINTHAN Chairman, REScoop.eu

■ Renewable Energy Communities and REDII

**Janek VOUK and George STYLIANOU** Visits Administrators and Lecturers at the European Parliament

■ Virtual Visit of the European Parliament



# **Meetings with National and Local Experts**

**Lukas BIEBER** BDEW, Unit Manager, Energy Network Regulation and Mobility

■ The Management of Complexities and the Role of Hydrogen in the Energy Transition

**Franca DIECHTL** Project Director, International Cooperation **Carlos EID** Expert, International Pilot Projects

■ DENA Deutsche Energy-Agentur

**Stephan HEINE** Representative from the Ministry of Economy and Energy

BMWI

**Laura KIRCHHOFF** Berliner Energieagentur, Federation of Energy and Climate Protection Agencies in Germany

Check (Save-Energy-Check)

**Lukas KÖHLER** Speaker of Climate Policy FDP, Committee of Environment, Conservation and Nuclear Safety

Meeting with MP of the Liberal Party (FDP)

**Robert LENK** Project Manager at Innovation Smart Cities

■ Berlin Smart City

Patricia MALERZ Senate Department for Economics, Energy and Public Enterprises

■ Energy Transition of the Senate of Berlin

Erik MUNDINGER Commissioner of Sustainability
Martin SITZMANN Executive Board

■ UmweltBank

**Ingrid NESTLE** Energy Commission of the National German Parliament

Meeting with MP of the Green Party (Die Grünen)

Bernhard WEYRES-BORCHERT President of German Cooperation for Solar Energy

■ SolarZentrum Hamburg



#### **Meetings with International Experts**

**Arina ANISIE** Associate Programme Officer in the Innovation, Technology and Patents Team, TRENA

**Carlos FERNANDEZ** Associate Professional in the Power System Flexibility Team, IRENA **Nadeem GOUSSOUS** Associate Professional – Clean Energy Transition Scenarios and Networks, IRENA

Raul MIRANDA Associate Programme Officer in the Power System Flexibility Team, IRENA

■ Irena and its Role in Promoting Flexibility and Innovations in the Power

**Daniel CROW and Toru MUTA** Senior Energy Analysts at International Energy Agency (IEA)

■ World Energy Outlook Scenarios

#### Laura GUTIERREZ and Ashley WEARNE GIZ

■ GET.Transform Programme, Access and MiniGrid Development

#### **Other Visits**

#### **BERLIN**

- Digital Visit to the 100% Renewable Village in Feldheim on 1 April 2021
- Digital Visit to a Mine in Welzow with **Daniela RAPP** Communication, Site Tagebau Welzow-Süd, on 6 April 2021
- Visit to the Centre Français de Berlin with Florian FANGMANN Director of Diversity and Participation Network, on 6 April 2021

#### NICE

- Visit to a Solar Installation in Mouans-Sartoux with Marwan EL RHAYTI on 11 May 2021
- Vist to Gréolières "From Smart Buildings and Smart Cities to Energy Positive Territories" on 15–18 June 2021





# **MASTER'S THESIS RESEARCH TOPICS**

#### Kenneth ADEDIRAN (Nigeria)

The Polish Nuclear Controversy: An Evaluation of Economic and Socio-Political Rationales

Thesis Supervisor: Laurent BAECHLER

#### Emma BACCHINI (Italy)

Rethinking the Energy System to Reduce Inequalities: Innovative Initiatives at the EU,

National and Local Level

Thesis Supervisor: Rachel GUYET

#### Paula Esenam BARKER-VORMAWOR (Ghana)

Gender Mainstreaming in Energy Access Policies: A Ghanaian Case Study

Thesis Supervisor: Rachel GUYET

#### **Darragh BREE** (Ireland)

Degrowth: A Concept to Address Climate and Energy Inequalities?

Thesis Supervisor: Rachel GUYET

# Eda BÜLBÜL (Turkey)

How to Fix the EU's Instrument for Pre-Accession Assistance to Turkey's Climate Action

Thesis Supervisor: Gilles LEPESANT

#### **Andrew FERGUSON** (United Kingdom)

Anaerobic Digestion of Solid Organic Waste: Obstacles and Opportunities in California

Thesis Supervisor: Rachel GUYET

#### Haifa GHATTAS (Lebanon)

Smart Cities: A Myth or a Reality?

Thesis Supervisor: François BAFOIL

#### Lauren JANSSENS (Belgium)

The Role of Nuclear Energy in the EU Green Deal

Thesis Supervisor: François BAFOIL

#### Jeremy JOSEPH (Trinidad & Tobago)

Assessing Energy Access in Haiti

Thesis Supervisor: Rachel GUYET

#### Manjunath Gangadhar KALLUR (India)

Solar Energy Transition in India: Can Solar Energy Provide a Competitive Alternative

to Coal in the Indian Energy Sector?
Thesis Supervisor: Gilles LEPESANT

m BARKER-VORMAWOR (Gnana)

#### Jeffrey LU (Australia)

Faouzi LAOUEJ (Tunisia)

The Different Pathways of Hydrogen Adoption: A Social-Technical Analysis

Transnational Justice and Human Rights in the Hydropower Projects in the Mekong Basin

of Hydrogen Approaches in Germany and Australia

Energy Transition: The Role of Oil and Gas Companies

Thesis Supervisor: Gilles LEPESANT

Thesis Supervisor: François BAFOIL

Tony KIM YEAT (Cambodia / France)

Thesis Supervisor: Rachel GUYET

#### Otman Mohammed MARROUN (Morocco)

Towards a Sustainable Supply of Critical Minerals for Batteries: An Assessment

of the Actions by Different Stakeholders at the EU Level

Thesis Supervisor: Gilles LEPESANT

#### Andrew MARSHALL (United Kingdom)

Overcoming the Challenges in the Supply Chain for Lithium-Ion Batteries in Europe

Thesis Supervisor: Gilles LEPESANT

#### Linda MAZZONI (Italy)

Bioenergy in the EU-Mercosur Agreement: An Empty Shell?

Thesis Supervisor: François BAFOIL

#### **Daniel OLSSON** (United Kingdom)

The Political Polarisation of Energy Transition Discourse in the United States and

its Effects on Local Renewable Energy Adoption

Thesis Supervisor: François BAFOIL

#### Anna PICHUGINA (Russia)

Solar in Russia: Opportunities and Obstacles

Thesis Supervisor: Rachel GUYET

# Dipendra SINGH (India)

Mini-Grid: A Way to Address Energy Access in Uttar Pradesh

Thesis Supervisor: Rachel GUYET

#### **Toby WALKER** (United Kingdom)

Hydrogen-Based Energy Storage: A Major Player for Decarbonisation?

Thesis Supervisor: Gilles LEPESANT





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