

CLINGENDAEL  
INTERNATIONAL  
ENERGY  
PROGRAMME

| C I E P

## ANNUAL REPORT 2019



May 2020

CIEP is an independent forum for governments, non-governmental organizations, the private sector, media, politicians and all other parties interested in changes and developments in the energy sector and energy related climate change issues.

CIEP organizes lectures, seminars, conferences and roundtable discussions. In addition, CIEP staff members lecture in a variety of courses and training programs. CIEP also contributes to international and European debates on energy by actively participating in numerous international conferences and expert workshops – where research findings are disseminated and inputs for further research are gathered. CIEP’s research, training and activities focus on economic and geopolitical dimensions of international energy and energy transition. CIEP is a partner of the Netherlands Institute of International Relations ‘Clingendael’.

In 2019 CIEP is endorsed by The Netherlands Ministry of Economic Affairs and Climate Policy, The Netherlands Ministry of Foreign Affairs, BP Europe SE-BP Belgium/ BP Europe SE-BP Nederland, Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A. ('Rabobank'), ENGIE Energie Nederland N.V., Neptune Energy Netherlands B.V., Eneco Holding N.V., EBN B.V., Esso Nederland B.V., Equinor ASA, GasTerra B.V., N.V. Nederlandse Gasunie, Heerema Marine Contractors Nederland SE, ING Wholesale Banking N.V., Nederlandse Aardolie Maatschappij B.V., Vattenfall NL, TenneT TSO B.V., One-Dyas B.V., Havenbedrijf Rotterdam N.V., RWE Generation NL B.V., Shell Nederland B.V., Total E&P Nederland B.V., Uniper Benelux N.V., Koninklijke Vopak N.V., Wintershall Dea Nederland B.V.

CIEP publications and research results are made available primarily through the CIEP website: [www.clingendaelenergy.com](http://www.clingendaelenergy.com)

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## TABLE OF CONTENT

TENSIONS COLOR THE YEAR 2019.....	5
BOARD OF THE FOUNDATION: STICHTING FONDS INSTITUUT CLINGENDAEL (SFIC) IN 2019.....	7
CIEP SUPPORTING INSTITUTIONS .....	7
STAFF.....	8
CIEP NETWORK .....	9
INTERNAL ORGANIZATION.....	9
CIEP PUBLICATIONS .....	10
<i>CIEP Papers</i> .....	10
<i>Columns</i> .....	10
EVENTS/ACTIVITIES.....	10
TRAINING.....	11
CIEP MEETINGS.....	11
LECTURES, SPEECHES, PRESENTATIONS, MEDIA .....	12
<i>MEETINGS 2019</i> .....	12
<i>EXTERNAL LECTURES/PRESENTATIONS</i> .....	13
WEBSITE.....	17
<i>This is where our visitors came from in 2019:</i> .....	17
<i>This is how they reached us in 2019:</i> .....	18
<i>Unique page visits to our publications in 2019:</i> .....	19
<i>Unique page visits for events in 2019:</i> .....	19
<i>Unique page visits ‘overall’ in 2019:</i> .....	20
PROJECTS.....	20
FINANCES .....	20
<b>ANNEX 1.....</b>	<b>22</b>
ABOUT CIEP .....	22
POST-PARIS NEW BUSINESS IS USUAL .....	23
CIEP RESEARCH AGENDA FROM 2017 TO 2021 .....	23



Artwork in the former ING head office, Amsterdam Zuidoost

## TENSIONS COLOR THE YEAR 2019

In 2019 the growing trade tensions between the US and China were felt in the international energy markets. US oil and LNG exports were brought under retaliatory tariffs by China. This caused trade diversion of both crude oil and LNG trade flows to the EU. The trade dispute with China was not the only US government intervention in the international oil and natural gas markets. In May 2019, the US tightened the sanctions on Iran and removed the exemptions on oil exports for China and some other countries. In the space of two months, nearly all (official) exports from Iran dried up, removing close to 3 million barrels a day (MBD) off the international market. The Iranian barrels were not the only ones not (easily) reaching international markets, also Venezuela was sanctioned and unrest in Libya also restricted oil exports. With so many barrels off the international market and a production restriction policy in place by OPEC plus prices should have firmed but they surprisingly did not. Between June and October 2019, oil prices weakened, compared to a relatively high price in Q1/Q2. In 2019 Brent crude traded between \$55 and \$75 per barrel, the latter price was recorded in April 2019, while WTI traded between \$47 and \$66. The recovery of oil prices in the fall of 2019 was preceded by the attack 14 September 2019 on the Abqaiq-Khureis oil treatment facilities, taking 5.7 million barrels a day or nearly 5% off the international market. Saudi Arabia restored the oil facility within a matter of weeks, and delivered oil to its clients from storage, and the initial spike in oil prices subsided. Nevertheless, oil prices stabilized at a higher level than in summer for the remainder of the year.

In the history of the international oil market, an event like the attack on Abqaiq had featured in all security of supply studies as disastrous. Yet, international oil market responses were relatively subdued after the initial fright. Saudi Arabia responded quickly and transparently with daily updates on the work to restore production and the continuation of oil exports from their stocks. The fact that Aramco was on the verge of offering a small portion of its shares on the market (which it did with a 1.5% sale of shares on the Saudi market Tadawul in December 2019) may have helped the transparency drive on the part of the Saudis and certainly helped to calm markets. The growing tensions between Iran and Saudi Arabia, the position of the US, the growing import dependency of China, the attack and the large volumes of oil not reaching international markets, again in most of the scenario thinking to that day, would have translated in a stronger recovery of prices if global oil demand had not been weak already.

International supply of oil and gas was larger than demand, and prices of both commodities were lower than anticipated. While oil at least held firm in the spring of 2019, LNG prices already began to decline in January and only saw an uptick towards winter 2019/2020 when concerns about a new disruption in Ukrainian transit grew. Late in December, the EU managed to negotiate an agreement between Russia and Ukraine on a new transit agreement and a debt and dispute settlement. On the same day that the trilateral agreement was announced, US Congress passed a bill to seriously harm completion in winter 2020 of the Nordstream II pipeline from Russia to Germany. Where the bill offered a 30-day respite from complying, which could have been enough to complete the pipelaying, a letter to board of the company involved in the pipelaying enforced immediate termination of the work. The costs of completing the pipeline were again pushed up, and the completion delayed. All through 2019, US LNG exports were up because exports to China were impossible with the 25% tariff. The EU was increasingly becoming an economic battleground for China, Russia and the US. Energy trade did not escape this battle and internal geopolitical tensions colored policymaking.

Politicization of energy was not only an international phenomenon, but also surfaced in the Netherlands over the climate agreement. The result of a discussion about the distribution of abatement costs in society and the sort of carrots and sticks needed to drive the climate change related investments, resulted in an additional tax on industry including ETS-sectors. The discussion derailed to some extent the commitments to the policy targets for 2030 and 2050 because of the potential impact on the competitive position of Dutch industry. Moreover, many of the companies note that they cannot begin with their CO2 abatement investments when they are not connected to the required new infrastructure, be it electricity, CO2 or clean gases. After a year and a half of very constructive discussions on decarbonizing the energy system, the technological route became clear, but the economics and regulation had hardly been discussed, let alone addressed in the negotiations. The translation of the negotiations into decision-making became highly political sorting out mainly the hurdles in 'The Hague' rather than the hurdles in technology, business models and market organization. This remains work in progress until today.

A milestone in 2019 was the outcome of the tender to build the major wind park Hollandse Kust Zuid without (SDE) subsidies. Offshore wind generation costs have come down dramatically in the re-emerging energy province called the North Sea. Not only in the Netherlands, but also in the waters of its North Sea neighbours, offshore wind is expanding. It is opening up the potential for further future North Sea energy cooperation. At the same time, the wind sector is seeking ways to underpin continued investments in the growing offshore wind generation sector. Increasingly, the economic integration of offshore wind in the power system is a point of concern and as a result infrastructural collaboration to manage landing the energy into the grids of TenneT and Gasunie has become very important. In 2019, TenneT and Gasunie presented their joint views on the need for an integrated infrastructural framework in an event at CIEP, while CIEP published a study in line with this approach on a new energy backbone.

The SARS-CoV-2 virus, causing Covid-19 disease, which surfaced in China in November 2019 and first wreaked havoc in China's economy and international supply lines and from February 2020 disrupted the world economy, may trigger a re-think on the approach to decarbonisation of industry in the Netherlands. With balance sheets across the world in disarray, the investment climate becomes more important than ever. Stimulating investments in the Netherlands that both stimulate economic activity, employment and decarbonisation, may and (perhaps) should surface as the preferred route.

The year 2019 produced both clear geopolitical and geo-economic distress signals. The short discussion of the oil and natural gas markets are just an example of the growing tensions in the world. With the SARS-CoV2 pandemic keeping many countries in lockdown at the time of writing, the big question is not only how to get on top of the pandemic while waiting for a vaccine, but also how to start up the economy and restore supply lines. Depending on the duration of the lockdown, economic recovery could be V-shaped, U-shaped or L-shaped, the latter being a worst-case scenario with large structural geopolitical and geo-economic consequences.

At CIEP we had already doubled our efforts to finalise the update of our geopolitical scenario's in 2019. We now intend to include the economic impact of the pandemic in an assessment in the short run (0-2 years) and the longer run. In 2019, we also worked on projects on Hydrogen as part of a new backbone of the energy system (at CIEP and IEA) and projects on fossil fuel subsidies (for EZK), and the potential of natural gas to reduce CO2 emission reduction. Furthermore, we began work on a large study into refining and petrochemicals and routes towards decarbonisation and in how far these routes strengthen or weaken existing industrial clusters. We are looking at the clusters in NW Europe and built on the work we did on refining in earlier years. It is clear that the current uncertainties on how to resume economic activity also impact heavily on energy markets, decarbonisation plans and policymaking. At CIEP, we will intensify the efforts to analyse both the short- and longer-term impacts of the current crisis.

## BOARD OF THE FOUNDATION: STICHTING FONDS INSTITUUT CLINGENDAEL (SFIC) IN 2019



Drs. Gertjan Lankhorst, chair



Jeroen van Hoof, RA treasurer



Mrs. Mr. Ida van Veldhuizen, member



Ir. Joost van Roost, member



Mr. Willem Russell, member



Ir. Rein Willems, member (until 1-12-2019)



Drs. D.P. Scherjon, member (from 1-12-2019)

The Clingendael International Energy Programme (CIEP) is a project of Stichting Fonds Instituut Clingendael (SFIC) since 1 September 2001. Each project period lasts four years. In 2017 a new (fifth) project period started and lasts until the end of 2020. 2019 was the third year of the fifth project period.

### CIEP SUPPORTING INSTITUTIONS

In 2019, the following institutions supported CIEP:

BP Europe SE- BP Nederland  
Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A. ('Rabobank')  
Dutch Ministry of Economic Affairs and Climate Change  
Dutch Ministry of Foreign Affairs  
EBN B.V.  
Eneco Holding N.V.  
ENGIE Energie Nederland N.V.  
Esso Nederland B.V.  
Havenbedrijf Rotterdam N.V.  
Heerema Marine Contractors Nederland SE  
GasTerra B.V.  
Neptune Energy Netherlands B.V  
ING Bank N.V.  
Koninklijke Vopak N.V.  
Nederlandse Aardolie Maatschappij B.V.  
N.V. Nederlandse Gasunie  
Vattenfall NL  
ONE-Dyas B.V.  
RWE Generation NL B.V.

Shell Nederland B.V.  
Equinor ASA  
TenneT TSO B.V.  
Total E&P Nederland B.V.  
Uniper Benelux N.V.  
Wintershall Dea Nederland B.V.

These institutions are a cross-section of energy sector stakeholders in the Netherlands and beyond. The companies are major international players in their field of expertise. The institutions contribute to CIEP's knowledge base and *vice versa*, especially within the CIEP Advisory Board and the Contact Group. Furthermore, staff members from the institutions participated actively in CIEP brainstorm groups and roundtables.

## STAFF

In 2019, the CIEP staff comprised the following employees:

	Coby van der Linde, director, 1.0 fte
	Pier Stapersma, senior researcher, 1.0 fte
	Luca Franza, researcher, 1.0 fte
	Jabbe van Leeuwen, researcher, 1.0 fte
	Kyle Ferriggi, researcher, 1.0 fte
	Jasper Meijering, 1,0 fte (from 1-6-2019)
	Wendy Auf dem Brinke, office manager, 0.8 fte
	Marco Blankenstijn, financial administration, 0.2 fte equi.

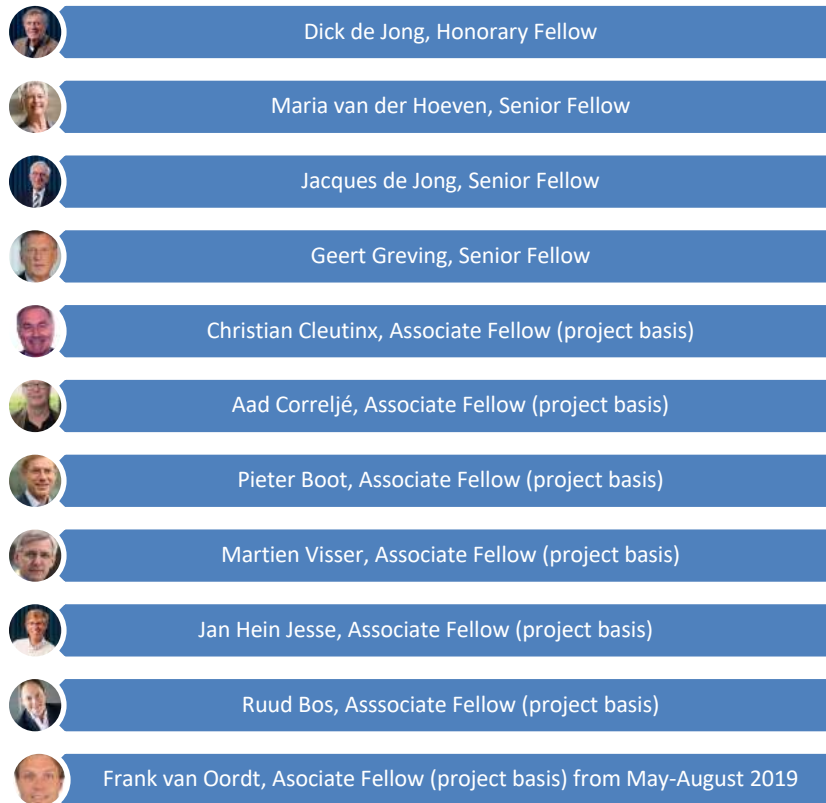
Other functions held by CIEP director in 2019:

Member of the Wise Person group of the IGU (since 2004)  
Member of Regieteam Topsector Energie and vice chair TKI Wind WoZ (until May 2019)  
Member of the Supervisory Board of Wintershall Dea Nederland B.V. (WDNL) and Wintershall Noordzee B.V (WINL).  
Member of the Supervisory Board of Alliander N.V. (until 1-7-2019)  
Member of the international advisory board of KAPSARC (King Abdullah Petroleum Study and Research Center), Saudi Arabia



Sjoerd Rooijackers was an intern at CIEP from 1 February 2019 until 1 August 2019 and wrote his master thesis and contributed to the activities of CIEP.

In addition to the research staff, senior fellows and associate fellows contributed to CIEP's work and network:



## CIEP NETWORK

Many of our activities and studies are conducted in cooperation with partner organizations in the Netherlands and abroad. Over time a wide network of researchers has developed. The intensity of contact depends on the project at hand, but in general many of the contacts continue in other projects. We are also regularly approached to participate in consortia of researchers in which CIEP decides to participate on a case by case basis depending on the relevance of the project for the public agenda of that period. The network of energy researchers is global, and each year new partners join the network. Some relations with research and activity partners have become very close and a variety of interactions take place every year, from keeping in touch on current issues to organizing conferences and conducting joint studies. In April 2019, for instance, we jointly organized an international oil workshop with Kapsarc in The Hague on the oil industry and energy transition.

## INTERNAL ORGANIZATION

CIEP administers the allocation of staff and budgets to the different activities, research projects and other pursuits. CIEP uses time registration (BigBen software), which facilitates prioritizing time and assets.

## CIEP PUBLICATIONS

The following overview highlights 2019 publications, most of which are available on CIEP's website ([www.clingendaelenergy.com/publications](http://www.clingendaelenergy.com/publications)). CIEP (associated) staff also published articles elsewhere, which are typically listed under the tab "other work" ([www.clingendaelenergy.com/otherwork](http://www.clingendaelenergy.com/otherwork)) when we are permitted to post the contribution. In 2018 CIEP published 2 research papers.

## CIEP PAPERS



- International Approaches to Clean Molecules: Five cases on Hydrogen, Jabbe van Leeuwen, January 2019
- Van onzichtbare hand naar meer zichtbare hand? Waterstof en Elektriciteit (also in English), Coby van der Linde en Jabbe van Leeuwen, October 2019
- The Potential Contribution of Gas to a Low Carbon Future, Pier Stapersma, November 2019

## COLUMNS

The 2019 columns of Coby van der Linde, Pieter Boot, Aad Correljé and Martien Visser appeared on the Energieforum website and the CIEP website ([clingendaelenergy.com/columns](http://clingendaelenergy.com/columns)). From July 2019 Coby van der Linde contributes monthly to the expert section on energy in the Financial Dagblad (FD). These can also be found on the [clingendaelenergy.com](http://clingendaelenergy.com) webpage.

## EVENTS/ACTIVITIES

CIEP organized various events (meetings, training programs, conferences, etc.) in 2019. See the list of events below, which is also available on [clingendaelenergy.com/events](http://clingendaelenergy.com/events); select 2019:

28 & 29 January 2019	Kapsarc/CIEP <i>'The Geopolitics of Implementing the Paris Agreement'</i> . Discussing the NDC's of China, Russia, India, EU and US and the Kapsarc tool for Behavioral Analysis applied to NDC's and policymakers
5 March 2019	CIEP Energy Lecture: <i>'McKinsey's 2019 Global Energy Perspective Reference Case'</i>
24 April 2019	International Workshop; <i>'Understanding the Energy Transition V'</i> with Kapsarc
13 June 2019	Expert workshop <i>'Northwest Europe in the Global Gas Market'</i>
25 June 2019	BP Statistical Review of World Energy 2019

- 12 September 2019      CIEP-NOGEPa Gas Day
- 14 November 2019      Presentation of the International Energy Agency (IEA) World Energy Outlook 2019 (WEO 2019)
- 10 December 2019      Infrastructure Outlook 2050 by Gasunie and TenneT

## TRAINING

- 28 November 2019      Integrated Energy System Transition in a Disintegrating World

Luca Franza and Coby van der Linde also taught the course 'International and European Gas Markets' in the Energy Master Programme of SciencesPo in Paris in January-March 2019.

Coby van der Linde also taught a half-course on energy security at Groningen University in February-March 2019.

CIEP also contributed to training programs directed to government officials, diplomats, personnel of international organizations and energy professionals, organized among others by the Clingendael Institute, Energy Academy and the Energy Delta Institute (EDI), Utrecht University, Florence School of Regulation and CEER.

## CIEP MEETINGS

### ***Board Stichting Fonds Instituut Clingendael***

- 20 May 2019
- 18 November 2019

### ***Advisory board***

- 22 June 2019
- 10 December 2019

### ***Contact group***

- 19 March 2019
- 11 June 2019
- 15 October 2019
- 3 December 2019

### ***Brainstorm groups***

Energy Transition and Market Design: In the fall we invited a small group of people involved in the climate tables and academia to discuss initially the economics of energy transition. This group has grown into a larger group around the theme 'hydrogen market creation and market design' at the request of some of the members to focus the discussion. This group met three times in person and exchanged comments on the draft documents by email in 2019.



## LECTURES, SPEECHES, PRESENTATIONS, MEDIA

During 2019, CIEP staff participated in various expert meetings and project meetings. In addition, CIEP staff members gave numerous lectures, speeches, and presentations or chaired sessions during training courses, conferences and seminars. CIEP staff in 2019 also gave various radio, television and written media interviews.

## MEETINGS 2019

January 2019	Expert meeting Energy systems and transition; Coby van der Linde, P. Stapersma (3 meetings in the spring/summer 2019)
	Project for the Ministry of Economic Affairs on subsidies Fossil Fuels; Pier Stapersma en Coby van der Linde (meetings on a regular basis until October 2019)
	‘Friends of Europe’, Seminar on Social Science and future energy policy; Jacques de Jong
	KEK-Industry Young Professionals; Jabbe van Leeuwen
February 2019	Expert meeting Energiesystemen/transitie; Coby van der Linde, Pier Stapersma
	Hydrogen report. Seconded to the IEA, Jabbe van Leeuwen (February-March- April)
	CEPS Ideas lab; Jacques de Jong
	Dutch Energy Roundtable McKinsey; Coby van der Linde
March 2019	Gas seminar Ministry of Economic Affairs; Coby van der Linde and Luca Franza
April 2019	Flame Amsterdam, Luca Franza
May 2019	Kick-off ‘Rotterdam Climate agreement’; Coby van der Linde (regular meetings until fall 2019; from May until July also attended by Frank van Oordt and after July 2019 Jabbe van Leeuwen
	‘Topteam & AET’ Ministry of Economic Affairs; Coby van der Linde
June 2019	PBL, Dialoogworkshop ‘Lessen uit Mondiale Milieuverkenningen’, Pier Stapersma
July 2019	TNO expert sessions ‘expertise maatschappelijke impact scenario’s terugdringen gaswinning, Pier Stapersma
August 2019	Seminar Ministry of EZK on Hydrogen market, Coby van der Linde

September 2019	CEPS Brussel, “European Research and Innovation Days”, Maria van der Hoeven
October 2019	Stakeholder meeting on Fossil Fuels Subsidies, Ministry of Foreign Affairs; Pier Stapersma en Coby van der Linde  Workshop/Seminar on ‘Assessing the potential for India’s gas market’, KAPSARC – Riyadh Saudi Arabia, Coby van der Linde
November 2019	Rotterdam Energy Port 2019; J.G. van der Linde; J. van Leeuwen  Green Hydrogen value chain development, Drift, Coby van der Linde

#### *EXTERNAL LECTURES/PRESENTATIONS*

January 2019	Erasmus University, 2-day course on Energy and Geopolitics; Coby van der Linde  Presentation for European Oil Storage Conference (Platts); Coby van der Linde  Brussels Energy Club – The importance of LNG in the new gas game in Eurasia – Commentator; Christian Cleutinx  CEPS Brussel, “Delivering a CCS and CCU agenda for Europe; Maria van der Hoeven
February 2019	Six lectures on international natural gas market developments at SciencesPo, Paris; Coby van der Linde (2) and Luca Franza (4)  Presentation on Energy & Geo-political Developments for the Ministry of Defense, Coby van der Linde  Lecture for Indonesian Diplomats for Institute Clingendael; Luca Franza  Presentation on Energy Transition for the Strategy Day of Koole Terminals; Coby van der Linde  Lecturing at GCSP on Energy and Geopolitics, Geneva; Luca Franza  Panel event on ‘Future of Gas’ organised by Oxera/EDI, Amsterdam, Coby van der Linde  Center for Humanitarian Dialogue - Geneva: Member of the Vienna group on Ukraine – Russia Energy Mediation; Christian Cleutinx
March 2019	University of Groningen, course on energy security, February/March, four lectures, Coby van der Linde

Presentation at EU India Seminar, Delhi; Luca Franza

ING's Sustainable Finance Event; Roundtable Energy Transition & Storage;  
Coby van der Linde

Small Island Development States (SIDS) expert meeting Institute Clingendael;  
Pier Stapersma

Rabobank presentation Energy Transition, Coby van der Linde

Chatham House London, 'Energy transition conference'; Maria van der  
Hoeven

April 2019

ExxonMobil panel discussion for inauguration of the Delayed Coker Unit in  
Antwerp, Coby van der Linde

Gazprom-Shell Summit keynote speech on "Role of gas/LNG in Global Energy  
Mix today and in the future (supply/demand outlook), Coby van der Linde

Presentation MENA Region Diplomats, Institute Clingendael; Luca Franza

Presentation CIV Course, Institute Clingendael, Luca Franza

KIVI Seminar 'Nordstream 2', Luca Franza

Presentation at the 20th European Gas Conference on 'Western Europe gas  
outlook – demand and supply' in Stavanger, Norway, Coby van der Linde

Seminar EPP- European Parliament on Citizens legal rights (Brussels); C.  
Cleutinx



May 2019

Brussels Energy Club – Energy Outlook for the Balkans – Commentator,  
Christian Cleutinx

June 2019

Presentation Ministry of Defense; Luca Franza

- Brussels Energy Club – Uzbekistan Energy Day – Commentator, Christian Cleutinx
- European Parliament EPP – EIN Summer University (San Sebastian-Spain); Christian Cleutinx
- July 2019
- Russian Gas Dialogue – Skolkovo Management School, Moscow; Luca Franza
- Ministry of Foreign Affairs, Expert Meeting – Geopolitical consequences of import dependency and international relations, Coby van der Linde
- Lecture at United Nations Model Unisa, Amsterdam, Luca Franza
- Presentation for African Diplomats, Clingendael Institute, Pier Stapersma and Luca Franza
- August 2019
- Stiftung Wissenschaft und Politik (SWP-Berlin) Expert talks on Oil and Gas markets, Christian Cleutinx
- Stiftung Wissenschaft und Politik (SWP-Berlin) Workshop on EU-Russia Energy Relations in a Changing environment (Berlin), Christian Cleutinx
- September 2019
- Lecture for members Ministry of Foreign affairs on energy security and specific on Russia relations, energy transition and climate safety, Clingendael Institute; J.G. van der Linde
- Presentation MENA Diplomats, Clingendael Institute; Luca Franza
- Energy Symposium, German Embassy, Coby van der Linde
- Economic Forum – Krynica (Poland) – Moderator of the Panel on Energy Investments; Christian Cleutinx
- Shell KSA Workshop; presentation on the energy perspective in-country, Coby van der Linde
- Presentation on Nord Stream 2 for Ministry of Foreign Affairs, Clingendael Institute, Luca Franza
- University Utrecht; Course on energy systems, guest lecture, Coby van der Linde
- Presentation for diplomats MENA, Oil & Gas focus; Clingendael Institute; P. Stapersma, L. Franza
- Presentation in leadership course Saudi Aramco, Coby van der Linde
- Presentation Hydrogen CEO dinner SmartPort, Port of Rotterdam, Coby van der Linde
- Platts; European Gas Summit moderating ‘the future for European gas’, medium term outlook to 2030, Coby van der Linde

Lecture on the Basics of Energy, University of Groningen, Luca Franza

Working lunch on hydrogen, ambassador of Denmark, Jabbe van Leeuwen

October 2019

Brussels Energy Club: Implementation of large-scale energy projects – Commentator, Christian Cleutinx

Panel debate KVGN ‘nationaal debat duurzame gassen’, Jabbe van Leeuwen

Moderator for Solar-Power Seminar, Embassy of Denmark, Coby van der Linde

Presentation on blackout, masterclass Nationaal Academie voor Crisisbeheersing, Coby van der Linde

Presentation on Integrated Energy system Transition, ING Energy conference, Frankfurt, Coby van der Linde

Key-note speaker Dutch Power Event, DNV GI Energy, Coby van der Linde

Presentation Eastern Partnership diplomats, Clingendael Institute, Luca Franza



November 2019

Key-note speech on Integrated energy system transition and hydrogen, Groningen EGATECH, Coby van der Linde

Presentation LBB, Institute Clingendael, Pier Stapersma

Presentation diplomats working at WTO, Institute Clingendael, Luca Franza

Presentation on EU-Russia relations (Atlantic Council), Luca Franza

Conference organized by Vecernji list – Gas: energy of the future? Panel on LNG – Liberation or burden? (Zagreb- Croatia); Christian Cleutinx

Stiftung Wissenschaft und Politik (SWP-Berlin) – 2nd workshop on EU-Russia Energy Dialogue – Sankt Petersburg (Russia), Christian Cleutinx



Chatham House London, “Water conference”, Maria van der Hoeven

Haskayne School of Energy, Calgary (Canada), “LNG markets in the world and Canada’s potential”, Maria van der Hoeven

December 2019

Club de Nice: Présidence de la table ronde sur « L’hydrogène dans la transition énergétique » (Nice-Fr), Christian Cleutinx

Gazprom-Brussels: Seminar on gas opportunities in the context of the EU Green deal, Christian Cleutinx

CEPS Brussel, “What green deal for a climate neutral world in 2050”; M. van der Hoeven

## WEBSITE

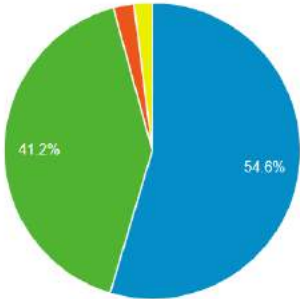
Everything CIEP published or organised from 2001 onwards, could be found at [www.clingendaelenergy.com](http://www.clingendaelenergy.com). Internet is an important communication and information dissemination tool for CIEP.

### THIS IS WHERE OUR VISITORS CAME FROM IN 2019:



*THIS IS HOW THEY REACHED US IN 2019:*

	14,947 % of Total: 100.00% (14,947)	14,947 % of Total: 100.00% (14,947)
1. <span style="color: blue;">■</span> Organic Search	<b>8,159</b>	54.59%
2. <span style="color: green;">■</span> Direct	<b>6,154</b>	41.17%
3. <span style="color: orange;">■</span> Social	<b>335</b>	2.24%
4. <span style="color: yellow;">■</span> Referral	<b>299</b>	2.00%



## UNIQUE PAGE VISITS TO OUR PUBLICATIONS IN 2019:

Page	Pageviews	Pageviews
	7,725 % of Total: 21.62% (35,725)	7,725 % of Total: 21.62% (35,725)
1. /publications/publication/international-approaches-to-clean-molecules-five-cases-on-hydrogen	848	10.98%
2. /publications/publication/outlook-for-eu-gas-demand-and-import-needs-to-2025	758	9.81%
3. /publications/publication/refinery-2050-refining-the-clean-molecule	677	8.76%
4. /publications/publication/the-european-refining-sector-a-diversity-of-markets	624	8.08%
5. /publications/publication/outlook-for-lng-imports-into-the-eu-to-2025	430	5.57%
6. /publications/publication/van-onzichtbare-naar-meer-zichtbare-hand-waterstof-en-elektriciteit-	423	5.48%
7. /publications/publication/europes-energy-relations-between-legacy-and-transformation	418	5.41%
8. /publications/publication/long-term-gas-import-contracts-in-europe	290	3.75%
9. /publications/publication/speaking-notes-integrated-energy-system-transition	231	2.99%
10. /publications/publication/european-union-industrial-energy-use-with-a-focus-on-natural-gas	228	2.95%
11. /publications/publication/the-potential-contribution-of-gas-to-a-low-carbon-future	227	2.94%
12. /publications/publication/outlook-for-russian-pipeline-gas-imports-into-the-eu-to-2025	203	2.63%
13. /publications/publication/long-term-prospects-for-northwest-european-refining	190	2.46%
14. /publications/publication/from-south-stream-to-turk-stream	166	2.15%
15. /publications/publication/the-transition-of-the-residential-heating-system	153	1.98%
16. /publications/publication/russias-oil-export-strategy-two-markets-two-faces	129	1.67%
17. /publications/publication/looking-under-the-hood-of-the-dutch-energy-system	127	1.64%
18. /publications/publication/the-changed-geopolitics-of-energy-and-climate	111	1.44%
19. /publications/publication/prospects-for-sustainable-diversification-of-the-eus-gas-supply	109	1.41%
20. /publications/publication/the-new-dimensions-of-geopolitics	103	1.33%

## UNIQUE PAGE VISITS FOR EVENTS IN 2019:

Page	Pageviews	Pageviews
	2,353 % of Total: 6.59% (35,725)	2,353 % of Total: 6.59% (35,725)
1. /events/event/ciep-nogepa-gas-day	674	28.64%
2. /events/event/ciep-energy-lecture-mckinseys-2019-global-energy-perspective-reference-case	419	17.81%
3. /events/event/presentation-of-weo-2019	207	8.80%
4. /events/event/save-the-date-ciep-nogepa-gas-day	192	8.16%
5. /events/event/bp-statistical-review-of-world-energy-2018	126	5.35%
6. /events/event/save-the-date-bp-statistical-review-of-world-energy	107	4.55%
7. /events/event/infrastructure-outlook-2050	82	3.48%
8. /events/event/world-energy-outlook-2018	71	3.02%
9. /events/event/ciep-nogepa-gas-day-2018	49	2.08%
10. /events/event/ciep-energy-lecture-by-dolf-gielen-irena-on-hydrogen-from-renewable-power	38	1.61%
11. /events/event/the-role-of-hydrogen-in-low-temperature-heating-the-case-of-nw-england-and-potential-in-the-netherlands	37	1.57%
12. /events/event/ciepnogepa-gas-day	28	1.19%
13. /events/event/the-geopolitics-of-implementing-the-paris-agreement	28	1.19%
14. /events/event/presentation-iaa-weo-2017-	27	1.15%
15. /events/event/understanding-the-energy-transition-v	26	1.10%
16. /events/event/bp-statistical-review-of-world-energy	23	0.98%
17. /events/event/northwest-europe-in-the-global-gas-market	22	0.93%
18. /events/event/presentation-of-the-2016-world-energy-outlook	22	0.93%
19. /events/event/exxonmobil-outlook-for-energy-a-view-to-2040	13	0.55%
20. /events/event/understanding-the-energy-transition-iv	13	0.55%

## UNIQUE PAGE VISITS 'OVERALL' IN 2019:

Page	Pageviews	Pageviews	Contribution to total: Pageviews
	35,725 % of Total: 100.00% (35,725)	35,725 % of Total: 100.00% (35,725)	
1. /	6,216	17.40%	
2. /publications	3,786	10.60%	
3. /about_us/staff	2,036	5.70%	
4. /about_us	1,744	4.88%	
5. /events	1,492	4.18%	
6. /about_us/staff/member/coby-van-der-linde	1,336	3.74%	
7. /about_us/vacancies	871	2.44%	
8. /publications/publication/international-approaches-to-clean-molecules-five-cases-on-hydrogen	848	2.37%	
9. /publications/publication/outlook-for-eu-gas-demand-and-import-needs-to-2025	758	2.12%	
10. /publications/publication/refinery-2050-refining-the-clean-molecule	677	1.90%	

## PROJECTS

Ciep contributed in kind to the master class project of Publieke Zaken (for members of parliament). In 2019, Jabbe van Leeuwen was seconded on behalf of a project for the Ministry of EZK to the IEA to work on the hydrogen report, prepared for the G-20 in June in Japan. We also did a project for the Ministry of EZK on Fossil Fuel Subsidies. This report will be published in 2020, when parliament has been informed on the results of a wider project on fossil fuels subsidies and G-20 reporting. In May 2019, we were invited to contribute to the report of the Rotterdam Climate Table for industry.

## FINANCES

2019 was the third year of the fifth project period (2017 to the end of 2020). Income was higher and costs were higher compared to 2018, due on the one hand to higher project and public agenda income and the expansion of staff to work on the research projects. Nevertheless, the public agenda research was under budget for the year. These funds will be used in the last project year 2020 by drawing on the Destination Public Reserves, a facility to balance expenditures and public project income over the project years. The overall financial result for 2019 was a surplus of €108.098.

	2019	2018	2017
Contribution stakeholders	€ 677.200	€ 625.000	€ 625.000
Project income	€ 147.489	€ 59.509	€ 31.579
Other income or cost	-€ 778	-€ 692	-€ 413
Staff costs	€ 568.592	€ 480.099	€ 632.828
Depreciation cost	€ 5.198	€ 7.687	€ 9.203
Public activity costs	€ 28.800	€ 33.748	€ 45.371
Foundation costs	€ 106.012	€ 84.813	€ 78.120
Profit Taxes (Paid or return)	€ 7.211	€ 483	-€ 2.053
<b>TOTAL RESULT</b>	<b>€ 108.098</b>	<b>€ 76.988</b>	<b>-€ 107.321</b>

Liquidity	€ 1.286.925	€ 1.135.063	€1.007.045
Foundation Capital (CIEP)			
CIEP reserves	€ 982.538	€ 957.462	
Destination Public Reserves	€ 157.879	€ 74.856	



# ANNEX 1

## ABOUT CIEP

### *Introduction*

In September 2001, the *Clingendael International Energy Programme* (CIEP) was founded under the Foundation Stichting Fonds Instituut Clingendael. Supported by twelve institutions from the public and private sectors, CIEP participates in and seeks to make significant and substantive contributions to the public debates on national and international developments in the energy sector. After the initial period 2001-2004, CIEP continued largely on the same footing as the previous years based on the plan and estimated budget as described in the document *CIEP 2005-2008, Towards a European Forum* and agreed upon by the Board of Stichting Fonds Clingendael and seventeen participating institutions.

The main reasons for initiating CIEP were:

1. The need for a forum to discuss developments in the European energy markets, e.g. the liberalization of the European energy market, which will impact the organization of the market, government energy policies and strategies of companies operating in the energy sector. These changes in the internal European market take place against the backdrop of an expanding European Union, increased dependency on imported fossil fuels and efforts to address environmental concerns;
2. The concerns raised in public debates about security of supply and a growing import dependency, not only for European Union member states but also for other major consumer regions. These concerns will influence the policy options and choices of both consumers and producers. The political and economic developments in, for instance, the United States, Russia, the Middle East, the Caspian Sea region, and Asia, are therefore important in assessing the developments in the European energy situation.

### *Mission*

Through research, the publication of studies, information releases (particularly through the media and internet) and the organization of courses and training programs, CIEP makes a fundamental contribution to the public debate on international politics and economic developments in the energy sector (oil, gas, renewables and electricity).

### *Objectives*

- To serve as an independent forum for governments, non-governmental organizations, the business community, politics, the academic world, the media and other stakeholders or interested parties.
- To gather and develop information and knowledge about international political and economic developments in the energy sector on the basis of research, supported by a documentation system.
- To propagate information and knowledge about international political and economic developments in the energy sector by means of seminars, conferences, lectures, courses, publications and information releases via the media.
- To initiate discussions about current events and future developments relevant to the energy sector, energy policy, legislation and the relationship between the government and the private sector.

### *Research and activities*

CIEP's research and activities focus on energy markets (oil, gas, renewables and electricity) and policymaking in the European Union and geopolitics of international energy policymaking and markets.

## POST-PARIS NEW BUSINESS IS USUAL

### CIEP RESEARCH AGENDA FROM 2017 TO 2021

**After a long period of convergence of international energy markets, where coal, oil, natural gas, hydro and nuclear contributed to the national energy mixes, new energy technologies are now transforming both national and international energy markets and energy policymaking.** At the global level, the share of these new energy technologies is still small, but at some national and regional levels these shares are expanding rapidly. Changes are both fast and slow, depending on the level of analysis (world or national), the type of demand (heat, cooling, mobility) and the ability to (technically and economically) serve the various types of demand. As a result, the interaction between the various parts of the energy system, for instance in the energy value chains but also across various types of energy conversion technologies, is changing too. This offers challenges and opportunities in sustaining energy system stability.

The new technologies are currently mainly focused on the electricity sector where, in some countries, they already have a large impact on the **organization of the market**. The intermittency of some of the generating technologies and the lack of sufficiently economically viable storage technologies create markets where traditional and new energy technologies must co-exist, and where market forces and government policies compete. The change from commodity-oriented markets to more capital-intensive ones, with government or consumer guaranteed payments, is one of the issues facing policymakers and investors. The cost of capital, the availability of land and acceptance may become more prominent issues in the coming years.

In emerging economies, often with more state-oriented energy markets, renewables are also beginning to impact the organization of the energy sector, particularly where subsidies on traditional fuels are being reduced and new technologies are being introduced. In many countries, the organization of the market is becoming more hybrid, emphasizing the renewed importance of government policies and regulation.

Moreover, the new energy technologies will not only impact the energy and/or power mix but will also change the specialization of certain fuels to serve **demand in other sectors**. It is for instance likely that oil products, which now have a near monopoly in the global demand for mobility, will be increasingly challenged by other energy technologies (such as biofuels, LNG, electricity) and the development of new appliances. In heating, electrical solutions will compete with natural gas and oil products. Depending on the energy mix choices of countries and the availability of new appliances, some countries may develop into an energy economy with a larger share for electricity (due to electrification), while others may remain focused on (low carbon) liquids and gases. The latter group could be countries with a variety of energy technologies and infrastructures, where liquids and gasses are used more intensely across the industrial and residential sectors. Interestingly, the economic structure of countries and the energy technology solution spaces or optionality may show much **more variation across countries** than before. Such a development could also impact energy trade flows and the security of demand for producing countries of natural gas, crude oil and coal.

It is clear that the changing demand for energy in the coming years will impact the **energy value chains**. On a global scale, demand is expected to grow substantially, despite energy efficiency gains. Growth of energy demand, however, will be unevenly distributed over economies, but also across sectors. In the OECD countries, energy demand is expected to be relatively flat, implying that new energy technologies come at the expense of traditional fuels, while in emerging markets, both new and traditional energy technologies can grow. In the refining business we already see the influence of

changing end-consumer markets and investments by IOCs and NOCs along the value chain, challenging the market model of various market refineries.

Technology is playing an increasingly important role in the development and composition of the energy mix. The idea that ‘the era of cheap oil/energy is over’ was proven wrong by the emergence of light tight oil in North America. Moreover, the idea that cheap energy is over is also vindicated by the **rapid decline in production costs** of solar and increasingly also of wind energy. In oil and natural gas, innovation unlocked previously stranded oil and gas assets at a cost below the price of many deep offshore projects and other more conventional resources, which had until 2008 held the promise of being the ‘next game in town’. But also, the development of the solar value chain may hold some surprises. The development of production methods, tailor-made production runs, the efficiency of the panels and the **focus on promoting domestic production** by many governments may change the concentration of production in China to a more distributed model of production. At the same time, the gas value chain is rapidly globalizing, with more LNG coming on stream, connecting the previous regionally organised gas markets. The challenge for gas is to develop new markets both in power generation and mobility, while competing with various other energy technologies in heating markets. The price of gas and the cost of gas production capacities is crucial here, particularly when markets are re-designed to favor other technologies. Currently the qualities of gas, such as flexibility, energy per carbon emitted, and other pollutants, are not properly valued in commodity markets nor in government policies, and due to the geopolitical nature of some gas trade, may never be properly valued at a global level. Nevertheless, natural gas could become the flex fuel of the electricity sector in many economies, as a companion of intermittent energy technologies, while being challenged by new heat technologies in the industrial and residential sectors. Nuclear has potential to grow in energy intensive emerging markets, but new investments are difficult in the current low-price markets. The coal industry is looking at India as its last large potential market, but prospects to grow in the longer term are slim, unless CCS or other abating technologies become economically available. Understanding the drivers of government policies and international market developments are crucial elements in future investment and trade opportunities and international energy relations.

The development of the various energy value chains has always been strongly linked to demography and economic growth. The prospect of a period of **lower global economic growth**, but also (increased) decoupling of energy demand growth from economic growth is another large uncertainty for investors in energy. New industrial production methods and organization of production could impact substantially on the demand for energy. Moreover, in a low economic growth environment, energy demand and supply will also grow less buoyant, particularly when government policies are at the same time biased towards an increased share for certain energy technologies and not others. In the post-Paris era, this may change the inter-fuel dynamics, boosting growth of new energy technologies to the detriment of more traditional (imported) fuels. Much depends on translating the intended national climate change policies of Paris into execution of the plans. The cost of capital, the availability of (abatement) technology, access to energy resources and the ability of consumers to adopt new energy products and services will determine the pathways for certain fuels in certain economies.

The uncertainties related to the speed of transition, the cost of energy, the development of new energy technologies, the impact of government policy-making could be deepened by the growing **geopolitical conflicts** in, for instance, the Middle East and Europe, where energy investments, production and trade could easily become snarled into these conflicts. Security of demand for producers of coal, oil and natural gas could become a serious issue, and could lead to social-economic unrest when these economies have to adjust to new international energy markets before, they have fully monetized their reserves. The speed with which economies are able to adopt to new energy technologies and at what socio-economic cost will be as important in determining the **future international energy relations** as the ability to access energy in freely traded international markets.



For instance, tensions in Asia could hinder development of more integrated energy markets and re-orient policymaking on security of supply issues rather than market developments and climate change policies.

CIEP research will continue to focus on these developments across energy value chains and economies with the dynamics of new energy technologies impacting investments, demand, supply and policymaking always in mind. Both the international and the European developments in markets and policymaking will be key, depending on the topic. We will continue to research developments in international and European natural gas and oil markets and intensify efforts to analyze the impact of new energy technologies on various international markets and government policies.