
Dr. CHYONG, Chi Kong – Curriculum Vitae

Oxford Institute for Energy Studies
Email: kong.chyong@oxfordenergy.org
Web: www.kongchyong.com

Dr. Chyong is an applied energy economist and policy analyst with a strong background and more than fifteen years of experience applying economics and operational research methods to energy and climate policy questions. Kong graduated from the University of Cambridge with an MPhil in Technology Policy (2007) and a PhD in Energy Economics and Policy (2011). His research interests include energy system economics and modelling to understand deep decarbonisation pathways, large-scale power market modelling, economic modelling of global gas and LNG markets, geopolitics and economics of Russian natural gas exports, and Russo-Ukrainian bilateral relations.

PROFESSIONAL EXPERIENCE

2024- Senior Research Fellow, *Oxford Institute for Energy Studies*
2024- Affiliated Scientist, *RFF-CMCC European Institute on Economics and the Environment*
2022-2024 Senior Research Scholar, *School of International and Public Affairs, Columbia University*
2013-2022 Research Associate, *Cambridge Judge Business School, University of Cambridge*
2013-2021 Director of Energy Policy Forum, *Energy Policy Research Group, University of Cambridge*
2011-2012 Coordinator, *Cambridge Centre for Carbon Capture and Storage, University of Cambridge*
2014-2015 Visiting Policy Fellow, *European Council on Foreign Relations*
2011-2012 Research Associate, *Judge Business School and Electricity Policy Research Group, University of Cambridge*

EDUCATION

2011 **Judge Business School, University of Cambridge**
PhD in Energy Economics and Policy
2007 **Judge Business School, University of Cambridge**
MPhil in Technology Policy
2005 **Odesa National University (Ukraine)**
MSc in Economic Theory
2004 **Odesa National University (Ukraine)**
BA in International Relations

UNIVERSITY TEACHING & SUPERVISION EXPERIENCE

Lecturing

2023 “Energy Economics”, School of International and Public Affairs, Columbia University
2023 “Operational Research in the Energy Industry – Energy Economics Part”, School of Mathematics, The University of Edinburgh
2012-2016 “System Dynamics for Policy and Management”, Judge Business School, the University of Cambridge
2013-2015 “Game Theory for Social Scientists”, Social Sciences Research Methods Centre, the University of Cambridge

Small-Group Tutorials (‘Supervisions’) and Teaching Assistantship

2017-2021 “MBA Microeconomics”: Judge Business School, University of Cambridge.
Marking essays
2013 “International Business Economics”: Judge Business School, University of Cambridge.
Marking essays and leading discussions with groups of 5 undergraduate students for the course ‘International Business Economics.’
2012 “Strategic Valuation: Uncertainty and Real Options in System Design”: Judge Business School, University of Cambridge
Helping groups of 2-5 MPhil students with their final course works
2008 Teaching Assistant in MPhil Technology Policy courses, Judge Business School, University of Cambridge

Research students supervisions

2022-2024 Supervision of six graduate students from Columbia University working on energy & climate policy, geopolitics and energy system modelling
2017-2021 Supervision of four MPhil Theses in Energy Technologies (Cambridge University Engineering Department) on topics related to *electricity market modelling*
2015-2016 Co-supervision of PhD Student from Lappeenranta University of Technology (Finland). PhD Chapter on: “Cost-Benefit Analyses of Russia’s Eastern Gas Export Strategy”

2014-2015	Co-supervision of PhD Student Visitor from the Beijing Institute of Technology. PhD Chapters (two) on (i) “ <i>Modelling the effects of NIMBY on public perceptions towards CCS technology</i> ”, (ii) “ <i>Modelling the potential of gas in Chinese electricity generation sector with particular focus on coal power plant efficiencies and carbon pricing.</i> ”
2013-2014	Co-supervision of PhD Student Visitor from Otto Beisheim School of Management. PhD Chapter: “ <i>Capacity market design options: A capacity expansion model and a GB case study.</i> ”
2013-2014	Supervised an MPhil student in Energy Technologies, Department of Engineering, University of Cambridge. MPhil Thesis: “ <i>On the interaction between gas and electricity balancing and the growing share of wind.</i> ”

ACADEMIC ACHIEVEMENTS

2011	30 th USAEE/IAEE North American Conference Dennis J. O’Brien Best Paper Award
2011	34 th IAEE International Conference Student Paper Award
2005	Ukrainian Ministry of Education and Science Student Research Award
2004	Ukrainian National Academy of Sciences Student Research Award
2003	Ukrainian Ministry of Economy Student Research Award

SCHOLARSHIPS

2008-2010	ESRC Electricity Policy Research Group, Judge Business School, University of Cambridge
2007-2008	Cambridge Centre for Energy Studies, Judge Business School, University of Cambridge
2004-2005	Ministry of Education Studentship (Ukraine)
2003-2004	Odessa National University Studentship (“S.U. Vitte” award)
2000-2004	Ministry of Foreign Affairs Studentship (Vietnam)

PUBLICATIONS

Peer-reviewed Journals

- Pollitt, M. G., von der Fehr, N. H. M., Willems, B., Banet, C., Le Coq, C., & **Chyong, C. K.** (2024). Recommendations for a future-proof electricity market design in Europe in light of the 2021-23 energy crisis. *Energy Policy*, 188, 114051. DOI: <https://doi.org/10.1016/j.enpol.2024.114051>
- Chyong, C.K.**, Pollitt, M., Reiner, D., Li, C. (2024) “Modelling flexibility requirements in deep decarbonisation scenarios: The role of conventional flexibility and sector coupling options in the European 2050 energy system”, *Energy Strategy Reviews*, vol. 52, 101322. DOI: <https://doi.org/10.1016/j.esr.2024.101322>
- Chyong, C.K.**, and Henderson, J. (2024) “Quantifying the economic value of Russian gas in Europe in the aftermath of the 2022 war in Ukraine”, *Energy*, vol. 292, 130604. DOI: <https://doi.org/10.1016/j.energy.2024.130604>
- Ah-Voun, D., **Chyong, C.K.**, and Li, C. (2024) “Europe’s energy security: From Russian dependence to renewable reliance”, *Energy Policy*, vol. 184, January 2024. DOI: <https://doi.org/10.1016/j.enpol.2023.113856>
- Chyong, C.K.**, Reiner, D.M., Ly, R., and Fajardy, M. (2023) “Economic modelling of flexible carbon capture and storage”, *Renewable and Sustainable Energy Reviews*, vol. 188, December 2023. DOI: <https://doi.org/10.1016/j.rser.2023.113864>
- Charitopoulos, V., Fajardy, M., **Chyong, C.K.**, Reiner, D.M. “The Case of 100% electrification of domestic heat in Great Britain”, *iScience*, vol. 26(11), November 2023. DOI: <https://doi.org/10.1016/j.isci.2023.108239>
- Chyong, C.K.**, and Newbery, D. (2022). “A Unit Commitment and Economic Dispatch Model of the GB Electricity Market – Formulation and Application to Hydro Pumped Storage”, *Energy Policy*, vol. 170, November 2022. DOI: <https://doi.org/10.1016/j.enpol.2022.113213>
- Chyong, C.K.**, Reiner, D., Aggarwal, D., (2023). “Market power and long-term gas contracts: the case of Gazprom in Central and Eastern European Gas Markets”, *The Energy Journal*, 44(1). DOI: 10.5547/01956574.44.1.cchy
- Pollitt, M., and **Chyong, C.K.** (2021) “Modelling Net Zero and Sector Coupling: Lessons for European Policy Makers”, *Economics of Energy & Environmental Policy*, 10 (2. 376), 25-40. DOI: <https://doi.org/10.5547/2160-5890.10.2.mpol>
- Chyong, C.K.**, Guo, B.W., Newbery, D. (2019). “The impact of a Carbon Tax on the CO2 emissions reduction of wind”, *The Energy Journal*. DOI: 10.5547/01956574.41.1.cchy
- Schnellmann, M.A., **Chyong, C.K.**, Reiner, D.M., Scott, S.A. (2019). “Deploying gas power with CCS: The role of operational flexibility, merit order and future energy scenarios”, *International Journal of Greenhouse Gas Control*, vol. 91, <https://doi.org/10.1016/j.ijggc.2019.102838>
- Chen, H., **Chyong, C.K.**, Mi, Z., Wei, Y-M., (2019) “Reforming the operation mechanism of the Chinese electricity system: benefits, challenges and possible solutions”, *The Energy Journal*. DOI: 10.5547/01956574.41.2.hche

13. **C.K. Chyong**, (2019). "European gas markets: taking stock and looking forward". *Review of Industrial Organization*; <https://doi.org/10.1007/s11151-019-09697-3>
14. Wei, Y-M., Chen, H., **Chyong, C.K.**, Kang, J-N., Liao, H., Tang, B-J. (2018). Economic dispatch savings in the coal-fired power sector: An empirical study of China. *Energy Economics*, vol. 74 (2018) pp.330-342; <https://doi.org/10.1016/j.eneco.2018.06.017>
15. Hach, H., **Chyong, C.K.** and Spinler, S. (2016). Capacity market design options: A capacity expansion model and a GB case study. *European Journal of Operational Research*, vol. 249 (2), pp. 691-705; DOI:10.1016/j.ejor.2015.08.034
16. **Chyong, C.K.** and Reiner, D.M. (2015). Economics and Politics of Shale Gas in Europe. *Economics of Energy & Environmental Policy*, Vol. 4(1)
17. **Chyong, C.K.** and BF. Hobbs (2014). Strategic Eurasian Natural Gas Market Model for Energy Security and Policy Analysis: Formulation and Application to South Stream. *Energy Economics*, Vol. 44, pp. 198–211. Available at: <http://dx.doi.org/10.1016/j.eneco.2014.04.006>
18. Noel P., Findlater S. and **Chyong C.K.** (2013). Baltic Gas Supply Security: Divided We Stand?, *Economics of Energy & Environmental Policy*, Vol. 2 (1), pp. 1-25. Available at: <http://dx.doi.org/10.5547/2160-5890.2.1.1>
19. **Chyong, C.K.**, Nuttall, W.J. and Reiner, D.M. (2008). Dynamics of the UK Natural Gas Industry: System Dynamics Modelling and Long-term Energy Policy Analysis. *Technological Forecasting & Social Change*, Vol. 76, issue 3, pp. 339-357, August 2008

Submitted & under review

1. **Chyong, C.K.** "Burning the Bridge to Ostpolitik: Stress-Testing Europe's Shift from Russian Gas to Renewables Using a Global Energy Model", *iScience* (under review)
2. **Chyong, C.K.**, Italiani, E., and Kazantzis, N. "Energy and Climate Policy Implications on the Deployment of Low-Carbon Ammonia Technologies", *Nature Communications* (revise & resubmit)
3. Li, C., **Chyong, C.K.**, Reiner, D., and Roques, F. "Taking a Portfolio Approach to Wind and Solar Deployment: The case of the National Electricity Market in Australia", *Applied Energy* (accepted)
4. **Chyong, C.K.**, Pollitt, M., and Cruise, R. "Can wholesale electricity prices support "subsidy-free" generation investment in Europe?", *IAEE The Energy Journal* (revise & resubmit)
5. Baldursson, F.M., Banet, C., **Chyong, C.K.**, "Regulation and Standards for a Resilient European Energy System", *Energy Policy* (under review)

In progress

1. Modelling externalities and public good nature of low-carbon energy technologies in Integrated Assessment Models – the case of hydrogen and e-fuels integrated assessment models
2. On the economics, public policy and regulation of low-carbon hydrogen
3. Economic policy and technological challenges to decarbonise existing hydrogen consumption in the industrial sector
4. Europe's Future Electricity Market Design
5. Distribution Impacts of China's National Emissions Trading Scheme: an assessment based on large-scale electricity unit commitment and economic dispatch market model
6. Plug-in electric vehicle charging patterns and their consequences for UK power generation: Statistical modelling of real-world charge event data and Monte Carlo simulation of decarbonisation pathways
7. Time Series Aggregation Methods for large-scale energy system modelling
8. A cost-benefit analysis of a nodal market design for GB's power market

Working papers

1. **Chyong, C.K.** "Burning the Bridge to Ostpolitik? Stress-Testing Europe's Shift from Russian Gas to Renewables Using a Global Energy Model" OIES Report NG191, April 2024, available at: <https://www.oxfordenergy.org/publications/burning-the-bridge-to-ostpolitik-stress-testing-europes-shift-from-russian-gas-to-renewables-using-a-global-energy-model/>
2. **Chyong, C.K.**, Italiani, E., and Kazantzis, N. "Implications of the IRA on Deployment of Low-Carbon Ammonia Technologies", CEEPR MIT Working Paper 2023-021, November 2023, available at: <https://ceep.mit.edu/implications-of-the-ira-on-deployment-of-low-carbon-ammonia-technologies/>
3. Henderson, J., & **Chyong, C.K.** (2023) "Do future Russian gas pipeline exports to Europe matter anymore?" OIES Energy Insight: 131, July 2023, available at: <https://www.oxfordenergy.org/publications/do-future-russian-gas-pipeline-exports-to-europe-matter-anymore/>
4. Webbe-Wood, D., Nuttall, W., Kazantzis, N., **Chyong, C.K.** (2023) "The Options Value of Blue Hydrogen in a Low Carbon Energy System", EPRG Working Paper 2309, May 2023, available at: <https://www.eprg.group.cam.ac.uk/eprg-working-paper-2309/>

5. **Chyong, C.K.**, Reiner, D., Ly, R., and Fajardy, M. (2023) "The economic value of flexible CCS in net-zero electricity systems: The case of the UK", EPRG Working Paper 2308, April 2023, available at: <https://www.eprg.group.cam.ac.uk/eprg-working-paper-2308/>
6. **Chyong, C.K.**, Pollitt, M., Reiner, D., and Li, C. (2023) "Modelling Flexibility Requirements in European 2050 Deep Decarbonisation Scenarios: The role of conventional flexibility and sector coupling options", EPRG Working Paper 2302, February 2023, available at: <https://www.eprg.group.cam.ac.uk/eprg-working-paper-2302/>
7. **Chyong, C.K.**, Reiner, D., and Aggarwal, D. (2021) "Market power and long-term gas contracts: the case of Gazprom in Central and Eastern European Gas Markets", EPRG Working Paper 2115, May 2021, available at: <https://www.eprg.group.cam.ac.uk/eprg-working-paper-2115/>
8. **Chyong, C.K.**, Li, C., Reiner, D., and Roques, F. (2020) "A Portfolio approach to wind and solar deployment in Australia", EPRG Working Paper 2022, August 2020, available at: <https://www.eprg.group.cam.ac.uk/eprg-working-paper-2022/>
9. **Chyong, C.K.**, Newbery, D., and McCarty, T. (2019) "A Unit Commitment and Economic Dispatch Model of the GB electricity market – Formulation and Application to Hydro Pumped Storage". *EPRG Working Paper N1924*, July 2019, available at: <https://www.eprg.group.cam.ac.uk/eprg-working-paper-1924/>
10. **Chyong, C.K.**, Pollitt, M., and Cruise, R. (2019) "Can wholesale electricity prices support "subsidy-free" generation investment in Europe?". *EPRG Working Paper N1919*, June 2019, available at: <https://www.eprg.group.cam.ac.uk/eprg-working-paper-1919/>
11. **C.K. Chyong.** "Challenges to the Future of European Single Market in Natural Gas". *EPRG Working Paper N1908*, February 2019, available at: <https://www.eprg.group.cam.ac.uk/eprg-working-paper-1908/>
12. **C.K. Chyong**, B.W. Guo, D. Newbery, 2019. "The impact of a Carbon Tax on the CO2 emissions reduction of wind". *EPRG Working Paper N1904*, January 2019, available at: <https://www.eprg.group.cam.ac.uk/eprg-working-paper-1904/>
13. M.A. Schnellmann, **C.K. Chyong**, D.M. Reiner, S.A. Scott, 2018. "Deploying gas power with CCS: The role of operational flexibility, merit order and future energy scenarios". *EPRG Working Paper N1836*, November 2018, available at: <https://www.eprg.group.cam.ac.uk/eprg-working-paper-1836/>
14. H. Chen, **C.K. Chyong**, J-K. Kang, Y-M. Wei, 2018. "Economic dispatch in the electricity sector in China: potential benefits and challenges ahead". *EPRG Working Paper N1819*, June 2018, available at: <https://goo.gl/EyjwA3>
15. **Chyong, C.K.** and Kazmin, R. (2016). The economics of global LNG trade: the case of Atlantic and Pacific inter-basin arbitrage in 2010-2014. *EPRG Working Paper series N1602*, January 2016, available at: <http://goo.gl/aa7slv>
16. **Chyong, C.K.** (2015). Markets and Long-Term Contracts: The Case of Russian Gas Supplies to Europe, *EPRG Working Paper series N1524*, December 2015, available at: <http://goo.gl/gx9iw2>
17. Hach, H., **Chyong, C.K.** and Spinler, S. (2015). Capacity market design options: A capacity expansion model and a GB case study. *EPRG Working Paper Series N1503*, February 2015, available at: <http://goo.gl/0Q7rsf>
18. Noël, P., Findlater, S. and **Chyong C.K.** (2012). The Cost of Improving Gas Supply Security in the Baltic States. *EPRG Working Paper series N1203*, January 2012, available at: <http://goo.gl/sEdDFM>
19. **Chyong, C.K.** and Hobbs, B.F. (2011) Strategic Eurasian Natural Gas Model for Energy Security and Policy Analysis. *EPRG Working Paper series N1115*, March 2011, available at: <http://goo.gl/H45plS>
20. **Chyong, C.K.**, Noel, P. and Reiner, D.M. (2010) The Economics of the Nord Stream Pipeline System, *EPRG Working Paper series N1026*, September 2010, available at: <http://goo.gl/pmUE3S>

Reports

1. Lozs, A., **Chyong, C.K.**, Joseph, I. (2023) "Beyond Spot vs. Long Term: Europe's LNG Contracting Options for an Uncertain Future", CGEP Commentary, Columbia University. Available here: <https://www.energypolicy.columbia.edu/publications/beyond-spot-vs-long-term-europes-lng-contracting-options-for-an-uncertain-future/>
2. **Chyong, C.K.**, Corbeau, A.-S., Joseph, I., & Mitrova, T. (2023). "Future Options for Russian Gas Exports", CGEP Commentary, Columbia University. Available here: <https://www.energypolicy.columbia.edu/publications/future-options-russian-gas-exports/>
3. Baldursson, F.M., Banet, C., **Chyong, C.K.** (2023) "Building Resilience in Europe's Energy System", CERRE Research Report, available at: <https://cerre.eu/publications/building-resilience-in-europes-energy-system/>
4. **Chyong, C.K.**, Pollitt, M., Reiner, D., Li, C., Ly, R., and Aggarwal, D. "Electricity and gas coupling in a decarbonised economy", report for Centre on Regulation in Europe (CERRE), March 2021, available at: <https://cerre.eu/publications/electricity-gas-sector-coupling-decarbonised-economy/>

5. Pollitt, M. and **Chyong, C.K.** “Europe’s Electricity Market Design: 2030 and Beyond”, report for Centre on Regulation in Europe (CERRE), December 2018, available at: <https://cerre.eu/publications/europes-electricity-market-design-2030-and-beyond>
6. Pollitt, M. and **Chyong, C.K.** “Brexit and its implications for British and EU Energy and Climate Policy”, report for Centre on Regulation in Europe (CERRE), November 2017, available at: <https://goo.gl/CV5vkv>
7. **Chyong, C.K.** “Russia’s gas pipeline strategy and Europe’s alternatives”, ECFR commentary, 07 July 2015, available at: https://ecfr.eu/article/commentary_russias_gas_pipeline_strategy_and_europes_alternatives_3065/
8. **Chyong, C.K.**, Slavkova, L., & Tcherneva, V. (2015) “Europe’s alternatives to Russian gas”, ECFR Commentary, 9 April 2015, Available at: https://ecfr.eu/article/commentary_europes_alternatives_to_russian_gas311666/
9. **Chyong, C.K.**, & Tcherneva, V. (2015) “Europe’s vulnerability on Russian gas”, ECFR Commentary, 17 March 2015, Available at: https://ecfr.eu/article/commentary_europes_vulnerability_on_russian_gas/
10. **Chyong, C.K.** “Ukraine’s gas “federalisation””, ECFR commentary, 02 March 2015, available at: <http://goo.gl/XdC7Ax>
11. **Chyong, C.K.** “Why Europe should support reform of the Ukrainian gas market – or risk a cut-off” ECFR Policy Brief, 13 October 2014, available at: <http://goo.gl/Pdn5O1>
12. **Chyong, C.K.** “Why this winter might bring a new gas crisis in Ukraine (and Europe)”, ECFR commentary, 10 October 2014, available at: <http://goo.gl/UP3A4m>
13. **Chyong, C.K.** “The Role of Russian gas in Ukraine”, ECFR commentary, 16 April 2014, available at: <http://goo.gl/PCvLB3>
14. **Chyong, C.K.** and Voysey, A. “An Options Approach to Unlocking Investment in Clean Energy” A Final Report for Banking Environment Initiative (BEI), November 2012, available at: <http://goo.gl/zJzr1s>
15. Reiner, D., Riesch, H. and **Chyong, C.K.**, “Opinion shaping factors towards CCS and local CCS projects: Public and stakeholder survey and focus groups”, A report for DG Research of the European Commission, NearCO2 WP2, June 2011, available at: <http://goo.gl/91GFwC>

Book chapters

1. Chyong, C.K. (2016). “On the Future of Global LNG Trade and Geopolitics”. In Colombo S., El Harrak, M., Sartori, N. (editors) *The Future of Natural Gas. Markets and Geopolitics*. Hof van Twente: Lenthe/European Energy Review. 41-61
2. Ozawa, M., Chyong, C.K., Lin, K-C., Reilly, T., Humphrey, C., Wood-Donnelly, C. (2019). “The power of Siberia: A Eurasian pipeline policy ‘good’ for whom”. In Ozawa, M., Chaplin, J., Pollitt, M., Reiner, M., Warde, P. (editors) *In Search of Good Energy Policy*. Cambridge: Cambridge University Press. 305-335. DOI: <https://doi.org/10.1017/9781108639439.021>

Other publications

- **Chyong, C.K.**, and Joseph, I. “Sources of Flexibility in Global Gas Markets”, *Energy Explained Blog*, Columbia University. Available here: <https://www.energypolicy.columbia.edu/sources-of-flexibility-in-global-gas-markets/>
- Noel, P., and **Chyong, C.K.** “German-American Support for Ukraine After Nord Stream 2 Won’t Be Enough”, *National Interest*, August 2, 2021. Available here: <https://nationalinterest.org/blog/buzz/german-american-support-ukraine-after-nord-stream-2-wont-be-enough-191046>
- Noel, P., and **Chyong, C.K.** “How to Break the Logjam Over Nord Stream 2”, *Foreign Policy*, April 29, 2021. Available here: <https://foreignpolicy.com/2021/04/29/nord-stream-2-russia-germany-gas-pipeline-ing-baltic-biden-europe-ukraine-energy/>
- **Chyong, C.K.**, “Will the Market Delivery Security of Gas Supply? The Case of the UK and Italy”, A comment, 15 December 2018
- **Chyong, C.K.** “Consequences of Gazprom’s commitments on Central and Eastern European gas markets”, op-ed, *EurActiv*, 11 May 2017, available at: <https://goo.gl/TXbllp>
- **Chyong, C.K.** “An Assessment of Gazprom’s Proposed Commitments Concerning Central and Eastern European Gas Markets Using a Global Gas Market Simulation Model”, EPRG research comment, 5 May 2017, available at: <https://goo.gl/FOhhq5>
- Pollitt, M., Reiner, M., Newbery, D., **Chyong, C.K.**, Viñuales, J. “Written evidence from the University of Cambridge (LEU0005) to the Business, Energy and Industrial Strategy Committee on Leaving the EU: negotiation priorities for energy and climate change policy inquiry”, House of Commons, 2016
- **Chyong, C.K.** and Reiner, D.M. “Nord Stream: The Sequel”, op-ed, *EUobserver*, 12 August 2015, available at: <https://goo.gl/49qlvG>
- **Chyong, C.K.** “Russia’s gas pipeline strategy and Europe’s alternatives”, op-ed, *EurActiv*, 3 July 2015, available at: <http://goo.gl/roV3XD>

- **Chyong, C.K.** and Reiner, D.M. "Time for 'tough love' in EU-Ukraine energy relations", op-ed, Europe's World, 20 March 2015, available at: <http://goo.gl/tHuKHf>
- **Chyong, C.K.** "Does Russia's Turkey pipeline make sense?", op-ed, EUobserver, 26 January 2015, available at: <http://goo.gl/bDvx0D>
- Reiner, D., Newbery, D., Pollitt, M., Ritz, R., **Chyong, C.K.**, Mahalingam, A. "A Note to the New Commission on the Way Forward to 2030". EPRG Policy Brief, 25 October 2014. Available at: <http://goo.gl/XGvZ3n>
- **Chyong, C.K.** and Noel, P. "Ukraine's energy brinkmanship", op-ed, Politics and Strategy, The Survival Editors' Blog (IISS), 10 October 2014, available at: <http://goo.gl/y0BQ4B>

PRESENTATIONS

- "Europe's Great Decoupling from Russian gas", European Studies Council and Yale Law School Colloquium, Yale University, March 4, 2024
- "Energy system modelling and the role of hydrogen", OIES Hydrogen Programme Sponsors' Workshop, Oxford, December 5, 2023
- "Europe's energy security: From Russian dependence to renewable reliance", Columbia University, 23 November 2023
- "Russia's invasion of Ukraine – implications for gas and electricity markets and policies in Europe", Economics Research Seminar (virtual), Swansea University, 25 May 2023
- "Russia's invasion of Ukraine – implications for gas and electricity markets and policies in Europe", Technical University of Munich's Europe Day, 10 May 2023
- "Modelling market power in European gas markets – the case of Gazprom in Central and Eastern Europe", School of Mathematics, University of Edinburgh, 22 Mar 2023
- "Russia's invasion of Ukraine – implications for gas and electricity markets and policies in Europe", John Hopkins University, 14 Feb 2023
- "Modelling global gas markets", ESMA team meeting, CGEP, Columbia University, 10 Jan 2023
- "*Russia's invasion of Ukraine: medium-term implications for European and global gas markets*", 2022 CEEPR & EPRG European Energy Policy Conference, Brussels, 1 Sept 2022
- "*Russia's invasion of Ukraine: medium-term implications for European and global gas markets*", presentation to RWE, virtual, 21 July 2022
- "*The Implications of the Ukraine War on the Energy Sector*", Panel discussion, Centre for Commercial Law Studies at Queen Mary, University of London, 7 July 2022
- "*Russia, Europe and Global Gas: 2000-present*", 2022 CEEPR & EPRG International Energy Policy Conference, Seoul, 28 June 2022
- "*Russia, Europe and Global Gas: 2000-present*", presentation to OFGEM, 20 June 2022
- "*Russia, Europe and Global Gas: 2010-present*", EPRG Spring Seminar, Cambridge, 6 May 2022.
- "*European Net Zero energy system modelling*", 8 April 2022, CSEI Workshop on Energy Systems Modelling for Integrated Network Planning
- "*Electricity and gas coupling in a decarbonised economy*", 6 April 2022, IAEE Webinar
- "*The intersection of energy security and climate policy*", 31 March 2022, UKCCSRC Webinar
- "*Gazprom and market power in European gas markets*", 9 December 2021, EPRG Winter Online Seminar
- "*Electricity and gas coupling in a decarbonised economy*", presentation to Macquarie, virtual, 3 December 2021
- "*Electricity and gas coupling in a decarbonised economy*", 13 May 2021, EPRG Spring Online Seminar
- "*Reaching net zero: scenarios and regulation to rethink sector coupling*", 16 Mar 2021, CERRE Public Event
- "*Electricity and gas coupling in a decarbonised economy*", presentation to Shell, virtual, 3 February 2021
- "*Can wholesale electricity prices support "subsidy-free" generation investment in Europe?*", 27 Nov 2020, EPRG-Macquarie MIRA Meeting
- "*Can wholesale electricity prices support "subsidy-free" generation investment in Europe?*", 19 Nov 2020, EWI Cologne Webinar "RES competitiveness"
- "*The role of hydrogen in the UK's 2050 net zero energy system – an initial assessment*", presentation to Macquarie, virtual, 3 July 2020
- "*The role of hydrogen in the UK's 2050 net zero energy system – an initial assessment*", presentation to RWE Supply&Trading, virtual, 23 June 2020
- "*European Gas Markets – taking stock and looking forward to 2025*", presentation to Macquarie, London, 20 May 2019
- "*Gas Market Modelling*", presentation to National Grid, Warwick, 2 May 2019
- "*Groningen Production Cap and European gas (& electricity) markets*", EPRG Winter Seminar, 07 Dec 2018, Cambridge

- *"UK & European gas markets: taking stock and looking forward"*, BIEE Gas Seminar (sponsored by Shell), 25 Oct 2018, London
- *"Future of electricity interconnectors"*, presentation to Centrica, Windsor, 14 September 2018
- *"Potential Impact of Groningen Production Cap on European gas markets"*, EPRG online conference call with corporate members, 26 June 2018
- *"What's next for Quo Vadis – a look ahead to the next Commission's gas agenda"*, presentation to RWE Supply&Trading, London, 7 June 2018
- *"European gas markets: taking stock and looking forward"*, Celebrating 25 years of the EU Single Market, Cambridge Judge Business School, Cambridge (UK), 20 April 2018
- *"An Assessment of Gazprom's Proposed Commitments Concerning Central and Eastern European Gas Markets"*, presentation to Gaslog, London, 30 January 2018
- *"Modelling potential impact of Brexit on gas and electricity trade between the UK and Europe"*, CERRE private workshop, Brussels, 22 November 2017
- *"An Assessment of Gazprom's Proposed Commitments Concerning Central and Eastern European Gas Markets"*, 2nd AIEE Energy Symposium: Current and Future Challenges to Energy Security, Rome, 3 November 2017
- *"An Assessment of Gazprom's Proposed Commitments Concerning Central and Eastern European Gas Markets"*, presentation to ENGIE, Paris, 18 September 2017
- *"Gas Market Modelling"*, presentation to Ofgem visit to Cambridge, Cambridge, 12 June 2017
- *"An Assessment of Gazprom's Proposed Commitments Concerning Central and Eastern European Gas Markets"*, presentation at International Energy Unit and Strategic and International Analysis, BEIS, London, 08 June 2017
- *"Economics of Gazprom's gas export strategies to Europe"*, Eurasian Natural Gas Infrastructure Conference, Milan, 30 May 2017
- *"Global Gas Markets – trends & discontinuities: implications for GB and Europe"*, EPRG 2017 Spring Seminar, Cambridge, 05 May 2017
- Roundtable discussion *"Natural gas from the Mediterranean region: what role in the energy transition after the Winter Package?"*, CEPS Energy Climate House, Brussels, 16 December 2016
- *"Gas transmission pricing and market integration in Europe"*, EPRG-NERA Winter Seminar, Cambridge, 9 December 2016
- *"The Economics of Natural Gas Storages in North Western European Markets"*, AIEE Energy Symposium on *"Current and Future Challenges to Energy Security"*, Milan, November 30-December 2, 2016
- *"Sino-Russian Oil and Gas Cooperation: Where it stands and How far it can go? A comment"*, CRASHH In Search of Good Energy Seminar, Cambridge, 01 November 2016
- *"Balancing short-term LNG markets"*, EPRG Conference Calls – Chi Kong Chyong (with Roman Kazmin, ICIS), 29 July 2016
- *"Natural Gas Storages in Europe"*, presentation to ENGIE, Paris, 6 July 2016
- *"Markets and Long-Term Contracts: The Case of Russian Gas Supplies to Europe"* Presented at EPRG-NERA Winter Seminar, Cambridge, UK, 11 December 2015
- *"Why 'good' energy policy matters for national security: the case of Ukraine"* presented at Festival of Ideas, Cambridge University, Cambridge, UK, 23 October 2015
- Participated in Roundtable session on *"Europe's energy security: how can Europe achieve diverse, secure and sustainable energy supply?"* at the European Energy Forum 2015, organised by International Business & Diplomatic Exchange, London, UK, 5 October 2015
- Participated in Roundtable session on *"EU and Russia Gas Scenarios. Risks and Uncertainties"* at the 25th Polish Economic Forum, Krynica-Zdrój, Poland, 8-10 September 2015
- *"Ukraine and security of gas supply to Europe"* Presented at the conference *"The EU in a changing global environment: What next for EU's Neighbours"* organised by Sofia Platform, ECFR & Ministry of Foreign Affairs of Bulgaria
- *"Is there an Alternative to Russian Gas?"*, Presented at the conference *"Europe's Dance on the Russian Gas Flame: Challenges and Perspectives for European Energy Security"* organised by DGAP, Berlin, Germany, 07 July 2015
- *"Ukraine and security of gas supply to Europe"*, Presented at the roundtable on European Energy Security organised by the Embassy of Czech Republic in France, Paris, France, 02 July 2015
- *"Geo-political issues (including Russia/Ukraine) in European gas markets and the potential EU responses"*, presentation to RWE Supply&Trading, London, 1 July 2015
- *"The Rise and Fall of South Stream/Turkish Stream & Implications for Europe/Ukraine"*, presentation to ENGIE, Paris, 10 June 2015
- *"The Rise and Fall of South Stream and implications for a European Energy Union"*, Presented at the *"Energy Infrastructures: Towards The Creation of a 'European Energy Union'"* conference organised by the Centre for Research on Energy and Environmental Economics and Policy, Bocconi University, Milan, Italy, 12 February 2015, available at: <http://goo.gl/yM6Rp5>

- *"Ukraine and Security of Gas Supplies to Europe – Part II"*, Presented at the EPRG Winter Research Seminar, 12 December 2014, Cambridge, UK, available at: <http://goo.gl/B738MF>
- *"Strategic Eurasian Natural Gas Market Model for Energy Security and Policy Analysis: Application to South Stream investment and Ukraine's gas diversification policy"*, Presented at the INFORMS Annual Meeting in collaboration with Prof. Benjamin Hobbs, 9-12 November 2014, San Francisco, USA. Available at: <http://goo.gl/oAgDKL>
- *"The Ukrainian energy policy and Europe's energy security"*, briefing and discussion at the Finnish Embassy in Luxembourg, 20 October 2014, Luxembourg
- *"The Future of Natural Gas in Ukraine: Implications for Europe's Security Of Gas Supply"*, Presented at the 14th IAEE European Energy Conference, 28-31 October 2014, Rome, Italy
- *"Ukraine and Security of Gas Supplies to Europe"*, Presented at the 2014 EPRG-CEEPR Annual Conference, Madrid, 2 July 2014, available at: <http://goo.gl/GxyKwv>
- *"Marginal Cost Curves For Conventional And Unconventional Natural Gas Production"* (With D Reiner & A Mahalingam), Presented at the IAEE Annual Conference, New York, 16 June 2014, available at: <http://goo.gl/TkoNx3>
- *"The Role of Natural Gas in Ukraine's Economy and Politics"*, EPRG Energy and Environment weekly seminar, Cambridge, UK, 26 May 2014, available at: <http://goo.gl/J3Rzcv>
- *"Cost and Effectiveness of Economic and Financial Sanctions"*, Oral Evidence, Treasury Committee, House of Commons, May 2014
- *"The Role of Natural Gas in Ukraine's Economy and Politics"*, EPRG online conference call with corporate members, 9 May 2014
- *"The economics of the UK shale gas"*, presentation to Centrica, Windsor, 26 March 2014
- *"Europe's energy security and current trends in the European energy market"*, Informal Discussion at the roundtable led by Daniel Korski, Special Adviser to the Prime Minister, UK Prime Minister's Office, London, March 2014
- *"LNG Pricing Worldwide and Gas Markets Reform"*, Russia LNG Congress, Moscow, 13-14 March 2014, available at: <http://goo.gl/z7S2fs>
- *"Global Gas Markets and Long Term Gas Supply Options for the UK"*, presentation to GDF-Suez, Paris, 27 November 2013
- *"Global Gas Markets and Long Term Gas Supply Options for the UK"*, presentation to Shell, The Hague, 15 November 2013
- *"Shale Gas and Market Impact"*, DLA Piper European Energy Forum: Shale Gas In Europe: A Revolution?, London, 05 November 2013, available at: <http://goo.gl/WOluh5>
- *"Implications of a shift away from domestic production of gas to importation to the UK"*, Politeia's Energy Series Round Table, London, 31 October 2013
- *"Russia's position in Global Gas Markets"*, Joint EPRG-EWI Natural Gas Workshop, EWI, University of Cologne, 30 September 2013
- *"The Globalisation of Natural Gas: Implications for European power markets under 'zero subsidy' scenarios"* ENEL-EPRG Kick-off meeting, Enel Corp., Rome, Italy, 16 September 2013
- EPRG & CEEPR Annual European Energy Conference, June 12, 2013, Helsinki, Finland: *"The Geopolitics and Economics of British-Russian Gas Trade Relations"*, available at: <http://www.eprg.group.cam.ac.uk/wp-content/uploads/2013/06/1b-Kong-and-Ozawa.pdf>
- Cambridge University Energy Network, February 25, 2013, Cambridge, UK: *"Carbon Capture and Storage (CCS): its real option value and potential value in the future electricity system"*, available at: <http://goo.gl/hSm5vB>
- *"Gazprom's bypass strategy and Russo-Ukrainian Gas Bargaining: South Stream Case Study"* presentation to Statoil, Stavanger, 26 April 2012
- INFORMS 2011 Annual Meeting, November 13-16, 2011, Charlotte, North Carolina, USA: *"Strategic Eurasian Natural Gas Model for Energy Security and Policy Analysis"*
- 30th USAEE/IAEE North American Conference, October 9-12, 2011, Washington DC, USA: *"The Economics of the South Stream Pipeline in the Context of Russo-Ukrainian Gas Bargaining"*, available at: <http://goo.gl/7xfVQ5>
- *"Strategic Eurasian Natural Gas Model for Energy Security and Policy Analysis"* presentation to GDF-Suez, Paris, 6 July 2011
- 34th IAEE International Conference, June 19-23, 2011, Stockholm School of Economics, Sweden: *"The Economics of the Nord Stream Pipeline System"*, available at: <http://www.hhs.se/IAEE-2011/Program/ConcurrentSessions/Documents/Chyong.pdf>
- EPRG Winter Research Seminar 2010, Cripps Court, Magdalene College, University of Cambridge: *"European Gas without Ukraine?"*, available at: <http://goo.gl/DVQD0e>
- EPRG Winter Research Seminar 2009, Judge Business School, University of Cambridge: *"Bypassing Ukraine: The Economics of 'Nord Stream'"*, available at: <http://goo.gl/KQzg4m>
- The 2009 Technology Management Policy Graduate Consortium Conference, Simon Fraser University, Canada – June 21-24, 2009: *"Strategic Interactions in Natural Gas Trade between Russia, Ukraine and Turkmenistan"*.

- The 10th International Conference on Technology Policy and Innovation, University of Stavanger, Norway – June 17-20, 2007: “A Dynamic Model of the UK Natural Gas Industry: System Dynamics Modelling and Long Term Energy Policy Analysis”

SELECTED BUSINESS CONSULTANCY PROJECTS

2022	Cost and benefits of Nodal and Zonal market designs for GB (for National Grid Plc.)
2021-22	Impact Assessment of trade flexible energy volumes directly in the wholesale market (for Elexon Ltd.)
2021-2022	Review of Security of Energy Supply in Ireland, Department of the Environment, Climate and Communications (with CEPA for DECC, Ireland)
2020-2021	European gas, LNG, power, and carbon market fundamentals research (for Crystol Energy Ltd., London)
2021	Modelling gas transmission tariff policy options (for IUK & BBL)
2019-21	Impact Assessment (IA) of electricity access and use of system charging proposals (for OFGEM) – methodology paper & IA paper
2019-21	Electricity and gas coupling in a decarbonised economy (for CERRE)
2020-21	UNC728 and alternative modifications Impact Assessment Support (for OFGEM)
2019-20	UNC678 and alternative modifications Impact Assessment Support (for OFGEM)
2018-19	Quantifying the economic value of gas transmission network in the GB gas and electricity markets (for National Grid Plc.)
2018	Modelling European power markets to support the analysis of the future of electricity market design (for CERRE)
2018	Equal NTS charging treatment proposals for bi-directional gas interconnectors (IUK & BBL)
2017	Modelling GB and European gas and electricity trade to support the study on “Brexit and its implications for British and EU Energy and Climate Policy” (for CERRE)
2016	Analytical Support for Gas Pipeline Operator (for IUK)
2016	Market assessment for the gas interconnectors BBL and IUK (for ACM)
2015-16	Modelling gas security of supply within the GB gas market – from present to 2035 (for Department of Energy and Climate Change, GB)
2011-16	European & CIS energy, IT, telecoms and space research (for Cambridge Partners, Ltd., London)