Roger Fouquet Curriculum Vitae August 2023

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CURRENT POSITION (since 2022):

Senior Research Fellow, Energy Studies Institute, National University of Singapore, Singapore

PAST POSITIONS:	
2013-2022:	Associate Professorial Research Fellow, Grantham Research Institute on Climate Change and
	the Environment (GRI), London School of Economics and Political Science (LSE), UK
2009-2013:	Ikerbasque Research Professor, Basque Centre for Climate Change (BC3), Bilbao, Spain
2005-2008:	Senior Lecturer, School of Economics, Faculty of Business and Economics, University of the South Pacific, Suva, Fiji
1995-2005:	Research Fellow, Department of Environmental Science & Technology, Imperial College London, London, UK
1993-1996	Research Fellow, Department of Economics, University of Surrey, Guildford, UK
1992:	Research Assistant, Roben Institute of Health and Safety, University of Surrey, Guildford, UK
EDUCATION:	
1997:	PhD Economics, University of Surrey, UK
1991:	MSc Energy Economics, University of Surrey, UK
1990:	BA Economics with Mathematics, University of Sussex, UK
AWARDS:	
2010:	Choice Magazine Outstanding Academic Title in 2009 for Heat, Power and Light
2006:	IAEE Campbell Watkins Award for Best Paper in The Energy Journal 2006
1996:	BIEE/Financial Times Andrew Holmes Memorial Award
SECONDMENTS:	
2001:	Strategy Team, The Carbon Trust, London, UK
1994:	Environment and Industry Branch, Department of Trade and Industry (DTI), London, UK
VISITING APPOINTMENTS:	
2022-Present	Visiting Senior Fellow, Grantham Research Institute on Climate Change, London School of Economics, UK
1998-Present	Visiting Professeur, Centre Economie et Gestion, Institut Français de Pétrole (IFP School), Rueil-Malmaison, France
2005-Present:	Honorary Research Fellow, Centre for Environmental Policy, Imperial College London.
2012-2013:	Visiting Senior Fellow, Grantham Research Institute on Climate Change, London School of Economics, UK
2012:	Visiting Professor, Barcelona Graduate School of Economics, Barcelona, Spain
1996-2005:	Visiting Research Fellow, Surrey Energy Economics Centre, (S.E.E.C.), Department of Economics, University of Surrey, Guildford, UK
2005:	Visiting Professeur, Institut Algerien de Petrol (IAP), Boumerdes, Algeria
2003:	Visiting Professor, Thammasat University, Bangkok, Thailand
1998-2003:	Visiting Research Fellow, Institute for Advanced Studies Carinthia, Klagenfurt, Austria
ADDITIONAL RESPONSIBILITIES (SELECTED):	
2020-Present:	Reviewer, Intergovernmental Panel on Climate Change (IPCC)
2018-Present:	Associate Editor, Journal of Energy History
2017-2022	Head, Growth & Innovation Research Programme, GRI, LSE
2014-2020:	Associate Editor, New Palgrave Dictionary of Economics
2010-2013:	Lead Analyst, Global Energy Assessment
1998-Present:	Editor, Energy Economics, New Economics Papers http://repec.org/

PUBLICATIONS

BOOKS AND EDITED SPECIAL ISSUES:

Fouquet, R. (2019) Handbook on Green Growth. Edward Elgar Publications. Cheltenham, UK, and Northampton, MA, USA.

Fouquet, R. (2018) The Economics of Renewable Energy. Edward Elgar Publications. Cheltenham, UK, and Northampton, MA, USA.

Fouquet, R. (2013) Handbook on Energy and Climate Change. Edward Elgar Publications. Cheltenham, UK, and Northampton, MA, USA.

Fouquet, R. and P. J.G. Pearson (2012) Past and Prospective Energy Transitions: Insights from History. Energy Policy 50.

Fouquet, R. (2008) Heat, Power and Light: Revolutions in Energy Services. Edward Elgar Publications. Cheltenham, UK, and Northampton, MA, USA.

ARTICLES:

Otojanov, R., Fouquet, R., and Granville, B. (2023) 'Factor prices and induced technical change in the Industrial Revolution.' *Economic History Review* 76(2) 599-623.

Fouquet, R. and T. O'Garra (2022) 'In search of progressive and effective climate policies: comparing the distributional impacts of an air travel carbon tax and a frequent flyer levy.' *Energy Policy* 171C: 113278

Michieka, N.M, Graziano, M., Musso, M. and Fouquet, R. (2022) 'Energy Transitions and Labor Market Patterns in the U.S. Coal Industry.' *Structural Change and Economic Dynamics* 63: 501-514. doi: <u>https://doi.org/10.1016/j.strueco.2022.07.005</u>.

O'Garra, T. and Fouquet, R. (2022) 'Willingness to reduce travel consumption to support a low-carbon transition beyond COVID-19'. *Ecological Economics* 193: 107297.

Fouquet, R. and Hippe, R. (2022) 'Twin Transitions of Decarbonisation and Digitalisation: A Historical Perspective on Energy and Information in European Economies.' *Energy Research & Social Science* 91: 102736.

Saunders, H., Roy, J., Azevedo, I.M.L., Chakravarty, D., Dasgupta, S., de la Rue du Can, S., Druckman, A., Fouquet, R., Grubb, M., Lin, B.Q., Lowe, R., Madlener, R., McCoy, D., Mundaca, L., Oreszczyn, T., Sorrell, S., Stern, D., Tanaka, K., Wei, T. (2021) 'Energy Efficiency: What has it Delivered in the Last 40 years?' *Annual Review of Environment and Resources* 46 135-65.

Chitnis, M., Fouquet, R., and Sorrell, S. (2020) 'Rebound effects for household energy services in the UK.' *The Energy Journal* 41(4) 123-151.

Fouquet, R. (2018) 'Consumer surplus from energy transitions.' The Energy Journal 39(3) 167-88.

Tsao, J.Y., Schubert, E.F., Fouquet, R. and Lave, M. (2018) 'The Electrification of Energy: Long-Term Trends and Opportunities.' MRS Energy & Sustainability doi:10.1557/mre.2018.6.

Hippe, R. and Fouquet, R. (2018) 'The knowledge economy in historical perspective.' World Economics 18(1) 75-107.

Fouquet, R. (2017) 'Make low-carbon energy an integral part of the knowledge economy.' Nature 551(7682) S141.

van de Ven, D.J. and Fouquet, R. (2017) 'Historical Energy Price Shocks and their Changing Effects on the Economy.' Energy Economics 62 204-216.

Fouquet, R. (2016) 'Path Dependence in Energy Systems and Economic Development.' Nature Energy 1(8) 16098.

Fouquet, R. (2016) 'Energy Services.' New Palgrave Dictionary of Economics.

Fouquet, R. (2016) 'Lessons from Energy History for Climate Policy: Technological Change, Demand and Economic Development.' Energy Research & Social Science 22 79-93.

Fouquet, R. (2016) 'Historical energy transitions: Speed, prices and system transformation.' Energy Research & Social Science 22 7-12.

Fouquet, R. and S.N. Broadberry (2015) 'Seven Centuries of European Economic Growth and Decline.' *Journal of Economic Perspectives* 29(4) 227-44.

Fouquet, R. (2015) 'The allocation of energy resources in the very long run.' *Journal of Natural Resource* Policy Research (Special Issue on William Nordhaus) 7(2-3) 147-156.

Fouquet, R. (2014) 'Long run demand for energy services: income and price elasticities over 200 years.' *Review of Environmental Economics and Policy* 8(2) 186-207.

Fouquet, R. and P.J.G. Pearson (2012) 'The long run demand for lighting: elasticities and rebound effects in different phases of economic development.' *Economics of Energy and Environmental Policy* 1(1) 83-100.

Fouquet, R. (2012) 'Trends in income and price elasticities of transport demand (1850-2010).' Energy Policy 50: 50-61.

Fouquet, R. (2012) 'The demand for environmental quality in driving transitions to low-polluting energy sources.' *Energy Policy* 50: 130-41.

Fouquet, R. and P.J.G. Pearson (2012) 'Past and Prospective Energy Transitions: Insights from History.' Editorial for Energy Policy

(Special Issue on Past and Prospective Energy Transitions) 50: 1-7.

Fouquet, R. (2011) 'Divergences in long run trends in the prices of energy and energy services.' *Review of Environmental Economics and Policy* 5(2) 196-218.

Fouquet, R. (2011) 'Long run trends in energy-related external costs.' Ecological Economics 70(12) 2380-9.

Fouquet, R. (2010) 'The slow search for solutions: lessons from historical energy transitions by sector and service.' *Energy Policy* 38(11) 6586-96.

Fouquet, R. and P.J.G. Pearson (2006) 'Seven centuries of energy services: the price and use of lighting in the United Kingdom (1300-2000).' *The Energy Journal* 27(1) 139-77.

Fouquet, R. (2003) 'The Carbon Trading Game.' Climate Policy (special Emissions Trading issue) 3(2) 143-55.

Fouquet, R. and P.J.G. Pearson (2003) 'Five centuries of energy prices.' World Economics 4(3) 93-119.

Grubb, M., C. Hope and R. Fouquet (2002) Climatic implications of the Kyoto Protocol: the contribution of international spillovers. *Climatic Change* 54 11-28.

Grimston, M., V. Karakousis, R. Fouquet, R. van der Vorst, P.J.G. Pearson and M.Leach (2001) 'The European and global potential for carbon sequestration in tackling climate change.' *Climate Policy* 1(2) 155-171.

Hart, D., M.A. Leach, R. Fouquet, P.J.G. Pearson, and A. Bauen (2000) 'Methanol infrastructure - will it affect the introduction of SPFC vehicles?' Journal of Power Sources 86(1) 542-7.

Fouquet, R. and P.J.G. Pearson (1998) 'A thousand years of energy use in the United Kingdom.' The Energy Journal 19(4) 1-41.

Fouquet, R (1998) 'The United Kingdom demand for renewable electricity in a liberalised market.' Energy Policy 26(4) 281-94.

Fouquet, R, D. Hawdon, P.J.G. Pearson, C. Robinson and P.G. Stevens (1997) 'The future of UK final user energy demand.' *Energy Policy* 25(2), 231-40.

Gage, H. and R. Fouquet (1997) 'Explaining breast cancer mortality in England: the effect of socioeconomic factors and health care services.' European Journal of Cancer Prevention 6(4) 341-50.

Pearson, P.J.G. and R. Fouquet (1996) 'Energy efficiency, economic efficiency and future carbon dioxide emissions from the developing world.' The *Energy Journal* 17(4), 1-26.

Fouquet, R and H. Gage (1996) 'The role of screening in reducing invasive cervical cancer registrations in England.' *Journal of Medical Screening* 4(3)70-8.

Fouquet, R. (1995) 'The impact of VAT introduction on residential energy demand: an investigation using the co-integration approach.' *Energy Economics* 17(3) 237-47.

CONTRIBUTIONS TO EDITED BOOKS:

Diebolt C., Fouquet R., Hippe R. (2020) 'Cliometrics and the Evolution of Human Capital.' In Kouli Y., Pawlowsky P., Hertwig M. (eds) Wissensökonomie und Digitalisierung. Springer VS, Wiesbaden.

Fouquet, R. and Hippe, R. (2019) 'The Transition from a Fossil-Fuel Economy to a Knowledge Economy' in Fouquet, R. (ed.) Handbook on Green Growth. Edward Elgar Publications. Cheltenham, UK, and Northampton, MA, USA.

Fouquet, R. (2019) 'Introduction' in Fouquet, R. (ed.) Handbook on Green Growth. Edward Elgar Publications. Cheltenham, UK, and Northampton, MA, USA.

Hippe, R. and R. Fouquet (2019) 'The human capital transition and the role of policy' in Diebolt, C. and Haupert, M. (eds.) Handbook of Cliometrics Vol.II. Springer-Verlag.

Fouquet, R. (2018) 'Introduction' in Fouquet, R. (ed.) The Economics of Renewable Energy. Edward Elgar Publications. Cheltenham, UK, and Northampton, MA, USA.

Zenghelis, D., Fouquet, R., and Hippe, R. (2018) 'Stranded Assets: then and now' in Caldecott, B. (ed.) Stranded Assets and the Environment: Risk, Resilience, and Opportunity. Routledge. London.

Yeager, K., F. Dayo, M. Dominik, R. Fouquet, A. Gilau, R. Hosier, A. Miller, S. Rao, S. Sethi (2012) 'Economy and Energy' in N. Nakicenovic, L. Gomez-Echeverri and T.B. Johansson (eds.) Global Energy Assessment. Cambridge University Press. Cambridge.

Fouquet, R. (2011) 'The Sustainability of `Sustainable' Energy Use: Historical Evidence on the Relationship between Economic Growth and Renewable Energy' in I. Galarraga, M. González-Eguino and A. Markandya (eds.) *Handbook of Sustainable Energy*. Edward Elgar Publications. Cheltenham, UK, and Northampton, MA, USA.

Fouquet, R. (2009) 'A brief history of energy' in J. Evans and L.C. Hunt (eds.) *International Handbook of the Economics of Energy*. Edward Elgar Publications. Cheltenham, UK, and Northampton, MA, USA.

P.J.G. Pearson and R. Fouquet (2003) 'Long run carbon dioxide emissions and Kuznets curves: pathways to development' in L. Hunt (ed.) *Energy in a Competitive Market*. Edward Elgar. Cheltenham.

Madlener, R. and Fouquet, R. (2002) 'Markets for tradable renewable electricity certificates Dutch experience and British prospects' A New

Era for Energy? Price Signals, Industry Structure and Environment. Oxford University Press, Oxford.

Fouquet, R. (2000) 'Lessons for the United Kingdom from previous experiences in the demand for renewable electricity' in Mackerron, G. and P. Pearson (eds): The International Energy Experience. Imperial College Press, London.

SELECTED BOOK REVIEWS:

Fouquet, R. (2023) 'Grand Transitions.' The Energy Journal 44 (2) 290-293.

Fouquet, R. (2018) 'Energy: A Human History by Richard Rhodes.' Nature 557 162-3.

Fouquet, R. (2017) 'Energy and Civilization: A History by Vaclav Smil.' Nature 544 (7648) 29-30.

Fouquet, R. (2014) 'Power to the People: Energy in Europe over the Last Five Centuries by Astrid Kander, Paolo Malanima and Paul Warde.' *Journal of Economic Literature* 52(4) 1194-6.

WORKING PAPERS (SUBMITTED, NEAR-SUBMISSION OR IN PROGRESS):

Fouquet, R. (2023) 'The Digitalisation, Decarbonisation and Dematerialisation of the Global Economy in Historical Perspective: The Relationship between Energy and Information since 1850.'

Fouquet, R. and Singer, G.A. (2022) 'Net Domestic Consumer Surplus, 1700-2017.' Economic Statistics Centre of Excellence (ESCoE) Conference on Economic Measurement (EM). University of Strathclyde, Glasgow, 25-27 May.

Graziano, M., Michieka, N., Musso, M., and Fouquet, R. (2021) 'Energy Transitions of declining energy industries: the effect of Renewable Portfolio Standards on the U.S. coal industry.'

FUNDING

UK Economic and Social Research Council (ESRC): funding research on 'UK Net Domestic Consumer Surplus, Inequality and the Environment, 1700-2020' as part of the call for ESRC Secondary Data Initiative (January 2023-December 2024)

UK Energy Research Council (UKERC): funding for research as part of Digital Society programme of the UK Centre for Research on Energy Demand (CREDS) – lead on project 'The Acceleration of the Digital Society during Covid-19.' (April 2021-December 2022).

British Academy/Leverhulme Small Grant (BA) for 'Historical Method for Constructing Demand Curves: A Validation Exercise (HisDem-v)' (October 2021-December 2022).

European Commissions (JRC) funding for analysis of 'Twin Transitions in Digitisation and Decarbonisation' (February 2021-May 2021).

National Infrastructure Commission (NIC) funding for the extension of the NIC's 'Historical Energy Database' (January 2021-June 2021).

Covid-19 Rapid Response (LSE) funding for project 'Sustaining Pro-Social and Environmental Behaviours beyond Covid-19' (May 2020-April 2021).

National Infrastructure Commission (NIC) funding for the curation of a 'Historical Energy Database' (January 2020-March 2020).

UK Energy Research Council (UKERC): funding for research as part of Digital Society programme of the UK Centre for Research on Energy Demand (CREDS)– lead on project 'Anticipating Future Impacts of ICTs on Energy Consumption' (March 2019-March 2021).

Environment Agency (EA) project 'Understanding the True Scale of Waste Crime' (January 2019-March 2019)

Ikerbasque: (Basque Science Foundation) 'Ikerbasque Research Professor' Fellowship, based at the Basque Centre for Climate Change, Bilbao, Spain (June 2009- February 2013).

UK Energy Research Council (UKERC): funding for major workshop (in 2010) on 'Past and Prospective Energy Transitions' (Fouquet and Pearson 2012).

David and Elaine Potter Foundation: awarded (in 2004) to complete book 'Heat, Power and Light' (Fouquet 2008).

NOTABLE DISSEMINATION AND IMPACT

Energy Transitions. Contributed to an episode of The Long View. Interviewed by Jonathan Freedland. BBC Radio 4. https://www.bbc.co.uk/programmes/m00146wr. 8 February 2022.

Historical Energy Database (2020) Prepared for UK's National Infrastructure Commission https://nic.org.uk/data/all-data/historic-energy/.

National Infrastructure Commission (2017) Economic Growth and the Demand for Infrastructure Services. Report based on the results in Fouquet (2014) <u>https://www.gov.uk/government/publications/economic-growth-and-demand-for-infrastructure-services</u>.

Carbon Trading Game (2017) Online Classroom Game for Teaching Economics based on Fouquet (2003) <u>https://economics-games.com/games?opentab=externalities</u>.

Intergovernmental Panel on Climate Change (2014, 2020) Cited extensively in Chapters 2 and 5 of the IPCC third working group report https://www.ipcc.ch/report/ar5/wg3/.

Global Energy Assessment (2012) Cited extensively throughout <u>https://iiasa.ac.at/web/home/research/Flagship-Projects/Global-Energy-Assessment/Chapters_Home.en.html</u>

TEACHING AND SUPERVISION

TEACHING ACTIVITIES:

1993-1998 Lecture on BSc/MSc Economics (Energy and Environmental Economics), Department of Economics, University of Surrey, UK 1995-2005 Lecture on MSc in Environmental Technology (Introduction to Econometrics), Centre for Environmental Technology, Imperial College London, UK

1998-2021 Lecture on MSc Economie and Gestion (Microeconomics), Centre Economie et Gestion, IFP School, Rueil-Malmaison, France 2003-2003 Lecture on ASEAN Leaders Course (Energy and Environmental Economics), Thammasat University, Bangkok, Thailand 2005-2008 Lecture on BSc/MSc Economics (Microeconomics, Environmental Economics), School of Economics, University of the South Pacific, Suva, Fiji

2012-2012 Lecture on MSc Climate Change Economics (Energy and Environmental Economics), Barcelona Graduate School of Economics, Barcelona, Spain

2013-2021 Lecture on MSc Courses (Environmental Economics, Climate Change Economics), Geography & Environment Department, London School of Economics and Political Science (LSE), UK

SUPERVISION OF GRADUATE STUDENTS:

2018: Ravshonbek Otojanov (Lecturer, Queen Mary University London, UK)
2019: Dirk Jan van de Ven (Postdoc, Basque Centre for Climate Change, Bilbao, Spain)
2020: Raphael Fuhrer (Postdoc, ETH Zurich, Switzerland)
2020: Zachary Turk (Postdoc, Faculty of Agricultural and Environmental Studies, University of Rostock, Germany)
2023: Giorgia Cecchinato (Postdoc, The Inclusion Initiative, London School of Economics, UK)

2023: Pia-Katharina Andres (Researcher, Oxford Martin School, University of Oxford, UK)

SUPERVISION OF POSTDOCTORAL FELLOWS:

2013-2015 Ralph Hippe (Scientific Officer, European Commission's Joint Research Centre (JRC), Sevilla) 2015-2017 Maria Waldinger (Deputy Director, ifo Center for Labor and Demographic Economics, Munich) 2018-2019 Elisabeth Isaksen (Research Fellow, Ragnar Frisch Centre for Economic Research, Oslo)