

CHIARA CANDELISE

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Personal Web Pages:

Imperial College London:

<https://www.imperial.ac.uk/people/c.candelise05>

Bocconi University:

https://www.green.unibocconi.eu/wps/wcm/connect/cdr/green/home/people/fellows/12_chiara+candelise

EDUCATION

Imperial College London, London, UK 2005 - 2010

PhD in Energy Economics

Thesis title: "Technical and regulatory developments needed to foster grid-connected photovoltaic (PV) within the UK electricity sector".

University College London, London, UK 2001 - 2002

MSc Economics

Thesis title: "The impact of HIV/AIDS epidemic on economic and rural development"

Bocconi University, Milan, Italy 1994 - 2000

BSc Economics

Thesis title: "Causes and consequences of corruption. What the role for institutional models?"

Abilitazione Scientifica Nazionale (ASN), 13/A4 Economia Applicata (Seconda fascia) 2018

RESEARCH EMPLOYMENT

Imperial College London, London, UK 2013 – present

Research Fellow - Imperial Centre for Energy Policy and Technology (ICEPT)

- Leading researcher on techno-economic and policy analysis of solar technologies

Bocconi University, Milan, Italy 2014 – present

Research Fellow, GREEN, Centre for Research on Geography, Resources, Environment, Energy & Networks

- Research on energy economics and policy, distributed generation and grid integration, innovative business models and financing for energy investments

Collegio Carlo Alberto, Università degli studi di Torino 2018 – 2019

Research Fellow, Department Economics Cognetti de Martiis

- Coordination of research activities of Turin Centre for Emerging Economies (OEET)
- Research on the nexus energy access (rural electrification) and food security

Imperial College London, London, UK 2011 – 2012

Research Associate - Imperial Centre for Energy Policy and Technology (ICEPT)

- Working on several energy research projects (see below for more details)
- Initiating and working on Seed Funding activities
- Leading researcher on socio and techno-economic analysis of solar technologies

University of Edinburgh/Imperial College London, UK 2009 - 2011

Research Associate

- Managed the techno and socio-economic Work Package of PV Supergen Consortium PV21

RESEARCH PROJECTS COORDINATION

EU Commission – H2020 Project 2019 – 2022

COMETS project: “COLlective action Models for Energy Transition and Social Innovation” (COMETS). Co-Investigator of research consortium made of six EU country members studying the role and contribution of citizen-driven Collective Action initiatives (e.g. energy communities, cooperatives, purchasing groups) to the EU energy transition. The project maps CAIs across EU, quantifies their aggregate contribution to energy transition, and develops indicators for their assessment as well as in-depth case studies and best practice.

Euroheat & Power (European Association for district heating) 2018

“The use of crowdfunding as novel financial tool for district heating investment” study commissioned under H2020 project TEMPO (Temperature Optimisation for Low Temperature District Heating across Europe).

Forum per la Finanza Sostenibile 2017

Study exploring the role of crowdfunding in the context of sustainable finance.

Kantor Management Group - EU Commission 2017 – 2018

“Building Solar PV Study – High Quality Studies to Support the activities under the Eastern Partnership (HiQStep)”. Project Objectives:

- Present EU policies, rules, regulations, tools and schemes of the promotion of solar panels on buildings
- To assess existing policies, rules, regulations and tools towards promotion of solar panels on buildings in the six Eastern Partner countries;
- To develop cost-benefit analysis for the staged development of building PVs in all Eastern Partner countries;
- To formulate recommendations on how to enhance PV penetration in the six Eastern Partners (Armenia, Azerbaijan, Belarus, Georgia, Moldova, Ukraine);
- To quantify the impact of building PV penetration to the overall energy mix and on the energy security of each country and to quantify the impact of PV generated energy to greenhouse gas emission reduction.

ANCI Emilia Romagna - EU IEE project SmartReFlex 2016

“Strumenti finanziari innovativi per impianti a fonti energetiche rinnovabili con focus su piccole reti di teleriscaldamento”: study of innovative financing schemes for investments in district heating.

UK Research Council - EPSRC 2017- 2022

“JUICE Project”, Joint UK India Clean Energy Centre: UK-India research consortium aiming at solving the integration of intermittent renewable energy for grid and isolated communities in India and UK with a view to grid connectivity. Co-Investigator of work package studying:

- development of scenarios for future PV, storage and smart technologies deployment and assess their grid integration implications;
- optimization of storage and smart technologies operation to maximise contribution and value of PV generation within the electricity grid;
- assessment of the economics and business models for their deployment; analysis of regulatory and policy conditions for successful implementation.
- modelling (sizing, costing and environmental impacts) and socio-economic assessment of micro-grid implementation for rural electrification (India)

UNDP (United Nation Development Programme) CEDRO Exchange 2015

“Crowdfunding and the energy sector”, research project exploring the use of crowdfunding in the energy sector.

EU Commission - Marie Curie Intra-European Fellowship 2014 – 2016

'LocalEnergy': Investigation of emerging business models for implementation of energy efficiency and renewable, with a particular focus on community and shared ownership approaches.

- Emerging and innovative business models for the deployment of renewable energy and energy efficiency, with a focus on community energy and shared ownership approaches.
- Study of crowdfunding as innovative and potentially disruptive alternative finance tool and its application to the energy sector.

UK Research Council - EPSRC

2013 – 2016

"PV2025 Project": Potential Costs and Benefits of Photovoltaics for UK-Infrastructure and Society: academic consortium to explore potential and implication of high penetration of PV in the UK energy system. Co-Investigator of work package studying:

- Spatially disaggregated PV scenarios to assess PV deployment and potential in UK
- Spatially disaggregated assessment of impact of PV generation to the UK electricity grid
- Analysis of feasibility and conditions for implementation of storage technologies to mitigate impact.

ESRC-SSRC Collaborative Visiting Fellowship, Brazil

2009

Visiting the following departments:

- Energy Planning Engineering department (PPE) at Alberto Luiz de Coimbra Graduate School and Research in Engineering (COPPE), Federal University of Rio de Janeiro (UFRJ)
- LABSOLAR, Solar Research Laboratory, and LabEEE, Laboratorio de Eficiencia Energetica em Edificacoes, both at University of Santa Caterina (UFSC), Florianopolis

RESEARCH PROJECTS PARTECIPATION

UK National Grid

2012- 2013

Research project to review of evidence and methodologies for Impact Assessment of socioeconomic impacts of gas transportation and electricity transmission infrastructure. Coordinated by Dr Rob Gross.

Imperial College London – Pathway to Impact Project, UK

2012 – 2013

"The potential of photovoltaic technologies for rural electrification and carbon emissions mitigation in developing countries": Evaluation of the potential of emerging novel PV technologies to accelerated PV deployment in developing countries, with focus on India. Coordinated by Prof Jenny Nelson.

Imperial College London – EPSRC funded project, UK

2012 – 2013

"Transformation of Top and Tail of Energy Networks": Imperial College led collaborative project of 8 Universities funded by the EPSRC Grand Challenge Programme, focusing on the physical infrastructure change in energy networks required to move the UK to a low carbon economy, and achieve the Government's 2050 reduction in CO2 emissions target. Coordinated by Dr Rob Gross.

Imperial College London – WWF UK

2012

"On picking winners": Analysis and discussion of implementation of carbon tax versus target support to renewables in a portfolio of energy policies. Coordinated by Dr Rob Gross.

UK Energy Research Centre (UKERC), TPA

2011 - 2012

"Electricity Cost Estimates Methodologies": Technology and Policy Assessment (TPA) project for the assessment of methodologies employed in estimating future costs in the UK electricity generation sector and of generation technologies' cost reduction potential. Coordinated by Dr Rob Gross.

Intelligence Energy Europe (IEE), EU Commission

2009 – 2011

"BioSolEsco": exploring potential of biomass and solar heating in public and private buildings via the energy services approach. Coordinated by Dr Marco Pantaleo.

UK Research Council - EPSRC

2009-2011

"PV Supergen (PV21)": academic and industrial consortium developing and testing innovative thin film PV technologies. Managed the Techno-economic Work Package, coordinated by Dr Mark Winkler and Dr Rob Gross.

- Investigated PV technologies innovation and cost reduction potential
- Investigated PV materials scarcity, supply chain bottlenecks and implications for PV future development

- Parametric modelling of PV technologies production costs, assessment of drivers for cost reductions and impact of materials costs.

Energy Research Centre (UKERC), UK

2008 - 2009

“Energy 2050”: integrated assessment of how the UK can move to a resilient (‘secure’) and low-carbon energy system over the period to 2050. Coordinated by Prof Jim Skea.

- Responsible for the photovoltaics “Advanced Technological Development” scenarios and analysis
- Markal energy system model – data development and scenarios analysis and results analysis.

Energy Research Centre (UKERC), London, UK

2008 - 2009

“Energy Technology Learning Rates and Learning Effects”: Analysis of innovation processes (or ‘learning effects’) for emerging energy supply technologies and the representation of these processes in ‘learning rates’. Coordinated by Dr Mark Winskel.

E.ON UK – EPSRC Partnership

2007

Contributed to scoping of the project “Pathways for a utility to a low-carbon energy system”.

Energy Institute, London, UK

2006

Contributed to submission to the Government Energy Strategy Consultation (2006).

FUNDING ID

- **2019-2022** - H2020 project, Collective action Models for Energy Transition and Social Innovation (COMETS), Call: H2020-LC-SC3-2018-2019-2020 (BUILDING A LOW-CARBON, CLIMATE RESILIENT FUTURE: SECURE, CLEAN AND EFFICIENT ENERGY). Topic: LC-SC3-CC-1-2018-2019-2020. Budget awarded: €170k out of a total €3000k.
- **2017-2021** - Joint UK India Clean Energy Centre (JUICE) project, budget awarded ~£250,000 out of total ~£2ml.
- **2018** - Study for Euroheat & Power (European Association for district heating), funding €14,000
- **2017** - Building Solar PV project for Kantor Management Group - EU Commission (2017-2018), funding €20,000
- **2013-2016** - Potential Costs and Benefits of Photovoltaics for UK-Infrastructure and Society (PV2025) project, budget awarded ~£190,000 out of total of £1ml.
- **2016** - Study for ANCI Emilia Romagna - EU IEE project SmartReFlex (2015), funding ~€4,000
- **2015** - Study for UNDP (United Nation Development Programme) CEDRO Exchange, funding €1,000
- **2014-2016** - Awarded EU Marie Curie Intra-European Fellowship (for total funds of €180k)
- **2009** - ESRC-SSRC Collaborative Visiting Fellowship, Brazil, ~£5,000

HONORS AND AWARDS - PROFESSIONAL MEMBERSHIPS

- Invited Member of the World Bank Group Global Influencer Barometer Panel, 2021
- Invited guest editor of Applied Energy Journal special issue ‘Sustainable Supply Chains and Energy Security’, 2013
- Advisor of PRIMAL renewable energies Lda, clean energy start-up, 2012, UK-Portugal
- Article *“Implications for CdTe and CIGS technologies production costs of indium and tellurium scarcity”* invited for publication to Progress in Photovoltaics (impact factor 6.4) after being selected among the 20 highest scored abstracts of the 26th European Photovoltaic Solar Energy Conference (EUPVSEC), Sept 2011, Hamburg. EUPVSEC is one of the largest annual academic conferences in the solar energy field with more than 4000 delegates.
- Invited to Britain's first ever renewable energy mission to Israel (Organised by British Embassy and KTN) and attended Eilat-Eilat Renewable Energy Conference and Exhibition, 2011

- Article "*Conditions for photovoltaics deployment in the UK: the role of policy and technical developments*" featured in the top 5 list of downloaded articles in 2010. Invited paper for publication on Journal of Power and Energy at the conference 'Sustainable Energy UK: Meeting the science and engineering challenge', UKERC Meeting Place, May 2008.
- Awarded ESRC-SSRC Visiting Fellowship, 2009
- Awarded UK Energy Research Centre (UKERC) interdisciplinary PhD scholarship, 2005
- Awarded University of Padova (Italy) scholarship to attend MSc Economics, 2001
- **Memberships:** EFElab, UK Solar Energy Society (UK-ISES), Imperial Solar Network, British Institute of Energy Economics (BIEE), Hawthorn Club (network for professional women in energy industry), Imperial College Brazilian Forum, European Energy Research Alliance (EERA) Socio-Economic Joint Programme and Photovoltaics Joint Programme, Turin Centre on Emerging Economies (OEET)

TEACHING AND SUPERVISION

- Supervised thesis projects from Master Degree in Environmental and Food Economics, Università degli Studi di Milano, Facoltà di Scienze Agrarie e Alimentari (2019,2021)
- Supervised PhD and MSc projects from MSc Environmental Technology (Centre for Environmental Policy) and MSc Sustainable Energy Futures (Energy Future Lab) at Imperial College London, (for the academic years 2009/2010, 2010/2011, 2011/2012, 2012/2013, 2014/2015, 2016/2017, 2017/2018, 2018/2019, 2019/2020)
- Supervised MSc projects from MaGER (Master in Green Management, Energy and Corporate Social Responsibility) at Bocconi University (2015-2016)
- Lectured at Project Management and Funding of International Programs, Bocconi University, May 2017
- Lectured at Energy Economics course, BSc course of Environmental and food economics, Università Statale, Milan (2015)
- Lectured on 'Crowdfunding: innovative tool to finance local RES projects?' at Advanced Training Course: Integration of renewable in the Mediterranean electricity market, organized by RES4MED, Polytechnic Milan, 25th November 2014
- Lectured on 'Photovoltaics technology, economics and policy' at MSc Environmental Technology, Centre for Environmental Policy, Imperial College London, 2011/2012, 2012/2013, 2013/2014
- Given small group seminars within Energy Policy option of MSc Environmental Technology (Centre for Environmental Policy), Imperial College London, 2010/2011 – 2011/2012, 2012/2013
- Given small group seminar to Laing O'Rourke MSc Systems Engineering & Innovation, Department Civil and Environmental Engineering, Imperial College London, 2011/2012
- Lectured on 'Renewables in developing countries' at MSc Environmental development, School of Environment and Development, University of Manchester, 2007/2008

OTHER PROFESSIONAL EXPERIENCE

Consultant – Energy Economist

Offering consultancy in the energy economics field to national and international public institutions and companies

2016 – to date

Ecomill s.r.l., Milan Italy

Founder

Ecomill is the equity crowdfunding platform authorised by Consob (Italian Financial Authority) focusing on projects in energy and impact investing

2014 – present

Erculea Resine S.p.a., Cosenza, Italy **2006 – 2011**
Family business producing plastic pipes

DEFRA (Department for Environment Food & Rural Affairs), London, UK **2003 - 2005**
Economist - Environment Policy Economics Division
Developing economic analysis and advice to support Environmental Policy Divisions

1. Climate change branch

- *International climate change issue*: provided economic advice, analysis and support into the post-2012 negotiation and EU climate policy; modelling domestic and international climate change policy
- *Domestic climate change policy*: Appraised and evaluated domestic climate change policy, in particular cost-benefit analysis of EU f-gases regulation and Ozone Depleting Substances EU regulation infraction
- Provided support and economic analysis to Social Cost of Carbon study (*Valuation of climate change damage*) – including organization of experts meetings and workshops

2. Air quality, Chemicals and Pesticides branch

- Worked on the cost-benefit analysis of the proposed European Chemicals Strategy (REACH) and other aspects of chemicals policy
- Provided economic analysis of Pesticides Tax proposal – international review of pesticide taxes, cost-benefit analysis of pesticides use
- Worked on evaluation and assessment of Air Quality Strategy Review

Caboto Holding SIM - asset management firm, Milan Italy **2000 - 2001**
Economist – Economic Analysis Department
Provided micro and macro-economic analysis to support trading activities

UNDP (United Nation Development Program - UNDP), Karakol, Kyrgystan **2000**
Intern - Project Implementation Unit of the Poverty alleviation Program
Assessed impact of UNDP Program on target communities (in terms of infrastructures, sanitation, economic performance, level of income poverty) and potential scaling-up

- Collected and analysed data through questionnaires, visits and workshops in target communities and villages

SKILLS

Languages

Italian: Native
English: fluent (written and spoken)
French: intermediate (written and spoken)
Portuguese: beginner

Computer skills

Familiar with most Windows-based software
Familiar with software for econometric applications: Eviews, STATA
Familiar with Reuters, Bloomberg

OTHER INTERESTS

Sports: Capoeira, Yoga, Sailing
Music: Saxophone and flute

PUBLICATIONS

Number of citations: 1527
H Index: 18
H10 Index: 27

Articles in refereed journals

1. Wierling, A., Schwanitz, V.J., Zeiss, J.P. **Candelise C.** et al. (2023) "A Europe-wide inventory of citizen-led energy action with data from 29 countries and over 10000 initiatives". *Sci Data* 10, 9.
2. Sowe, J. Varela Barreras, J. Schimpe, M. Wu, B. **Candelise, C.** Nelson, J. Few, S. (2022) "Model-informed battery current derating strategies: Simple methods to extend battery lifetime in islanded mini-grids". *Journal of Energy Storage*, Vol. 51 Pages 104524
3. Sciuillo, A.; Gilcrease, G.W.; Perugini, M.; Padovan, D.; Curli, B.; Gregg, J.S.; Arrobio, O.; Meynaerts, E.; Delvaux, S.; Polo-Alvarez, L.; **Candelise, C.**; van der Waal, E.; van der Windt, H.; Hubert, W.; Ivask, N.; Muiste, M. (2022) "Exploring Institutional and Socio-Economic Settings for the Development of Energy Communities in Europe". *Energies* 2022, 15, 1597.
4. Few S., Barton J., Sandwell P., Morie R., Kulkarnif P., Thomson M., Nelson J., **Candelise C.** (2022) "Electricity demand in populations gaining access: Impact of rurality and climatic conditions, and implications for microgrid design", *Energy for Sustainable Development*, 66, 151-164
5. Lupi V., **Candelise C.**, Almuni Calull M., Delvaux S., Valkering P., Hubert W., Sciuillo A., Ivask N., van der Waal E., Jimenez Iturriza I., Paci D., Della Valle N., Goukoufikis G., Dunlop T. (2021) "A Characterization of European Collective Action Initiatives and Their Role as Enablers of Citizens' Participation in the Energy Transition" *Energies* 2021, 14(24), 8452
6. Wierling, A., Zeiß, J.P., Lupi, V., Sciuillo, A. **Candelise, C.**, Schwanitz, V.J. (2021) "The Contribution of Energy Communities to the Upscaling of Photovoltaics in Germany and Italy". *Energies*, 14(8), 2258
7. **Candelise, C.** Vallino, E. Saccone, D. (2021) "An empirical assessment of direct and indirect effects of electricity access on food security", *World Development*, 141: 105390.
8. Few, S., Djapic, P. Strbac, G. Nelson, J. **Candelise, C.** (2020). "Assessing local costs and impacts of distributed solar PV using high resolution data from across Great Britain." *Renewable Energy* 162: 1140-1150.
9. **Candelise C**, Ruggieri, G. (2020) "Status and Evolution of the Community Energy Sector in Italy" *Energies*, 13(8), 1888
10. Gregg, J.S.; Nyborg, S.; Hansen, M.; Schwanitz, V.J.; Wierling, A.; Zeiss, J.P.; Delvaux, S.; Saenz, V.; Polo-Alvarez, L.; **Candelise, C.**; Gilcrease, W.; Arrobio, O.; Sciuillo, A.; Padovan, D., (2020), "Collective Action and Social Innovation in the Energy Sector: A Mobilization Model Perspective". *Energies* 2020, 13, 651.
11. Wierling, A., Schwanitz, V.J., Zeiß, J.P., Bout, C., **Candelise, C.**, Gilcrease, W., Sterling Gregg, J. (2018) "Statistical Evidence on the Role of Energy Cooperatives for the Energy Transition in European Countries" *Sustainability*, 10(9), 3339
12. **Candelise, C.** Westacott, P. (2017) "Can integration of PV within UK electricity network be improved? A GIS based assessment of storage benefits", *Energy Policy*, Vol: 109, p. 694-703
13. Sandwell, P. Ngai Lam, A. C. Foster, S. Nagpala, D. Emmott, **C. Candelise**, Buckle, S. Ekins-Daukes, N. Gambhir, A. Nelson, J. (2016) "Off-grid solar photovoltaic systems for rural electrification and emissions mitigation in India". *Solar Energy Materials and Solar Cells*, Vol: 156, p. 147–156
14. Westacott, P. **Candelise, C.** (2016) "Assessing the impacts of photovoltaic penetration across an entire low-voltage distribution network containing 1.5 million customers". *IET Renewable Power Generation*. Vol:10 (4), p. 460 – 466.
15. Westacott, P. **Candelise, C.** (2016) "A Novel Geographical Information Systems Framework to Characterize Photovoltaic Deployment in the UK: Initial Evidence". *Energies*. 9(1), 26.
16. Rowley, P. Leicester, P. Palmer, D. Westacott, P. **Candelise, C.** Betts, T. Gottschalg R. (2015) "Multi-domain analysis of photovoltaic impacts via integrated spatial and probabilistic modelling", 2015. *IET Renewable Power Generation*, Volume 9, Issue 5, p. 424 – 431.
17. Hoggett R, Bolton R, **Candelise C**, Kern F, Mitchell C. (2014) "Supply chains and energy security in a low carbon transition". *Applied Energy*, Vol:123, p. 292-295

18. Pantaleo, A. **Candelise, C.** Shah, N. Bauen, A. (2014) “*Esco business models for biomass heating and chp: profitability of Esco operations in Italy and key factors assessment*”, Renewable & Sustainable Energy Reviews. Vol:30, ISSN:1364-0321, p. 237-253
19. Marigo, N., **Candelise, C.** (2013) “*What is behind the recent dramatic reductions in photovoltaic prices? The role of China*”. *Economia e Politica Industriale - Journal of Industrial and Business Economics*. Vol. 40 (3), p. 5-41
20. Houari Y, Speirs J, **Candelise C**, Gross R. (2013) “*A system dynamics model of tellurium availability for CdTe PV*”, *Progress in Photovoltaics: Research and Applications*, 2013. Vol: 22, Issue 1, p. 129–146.
21. Winskel M, Markusson N, Jeffrey H, **Candelise C**, Dutton J, Howarth P, Jablonski S, Kalyvas C, Ward D. (2013) “*Learning pathways for energy supply technologies: Bridging between innovation studies and learning rates*”, *Technological Forecasting and Social Change*, Vol:81, p. 96-114
22. **Candelise, C.** Winskel, M. Gross, R. (2013) “*The dynamics of solar PV costs and prices as a challenge for technology forecasting*. *Renewable & Sustainable Energy Reviews*. Vol:26, p. 96-107
23. **Candelise C.** Winskel M. Gross R. (2012) “*Implications for CdTe and CIGS technologies production costs of indium and tellurium scarcity*’ *Progress in Photovoltaics: Research and Applications*. Vol: 20, p. 816–831
24. **Candelise, C.** Speirs, J. Gross R. (2011) “*Materials availability for thin film (TF) PV technologies development: a real concern?*” *Renewable and Sustainable Energy Review Journal*. Vol: 15, Issue 9, p. 4972–4981
25. **Candelise, C.** Gross, R. Leach, M. (2010) “*Conditions for photovoltaics deployment in the UK: the role of policy and technical developments*”. *Journal of Power and Energy*. Volume 224, p. 153-166

Forthcoming

26. Few, S., Djapic, P. Strbac, G. Nelson, J. **Candelise, C.** (2022) “*How will future electricity network stresses depend on local context and where is flexibility most needed? A geographically disaggregated study across Great Britain*”, forthcoming submission to *Nature Energy*

Book Chapters

27. **Candelise C.**, Ruggieri G. (2021) “*The Community Energy sector in Italy: historical perspective and recent evolution*” in “*Renewable Energy Communities and the Low Carbon Energy Transition in Europe*” Editors: Coenen F. H. J. M., Hoppe, T. Publisher: Palgrave Macmillan. ISBN 978-3-030-84439-4
28. Wierling, A., Zeiß, J.P., Hubert, W. **Candelise, C.**, Sterling G, J. Schwanitz, V.J. (2020) “*Who participates in and drives collective action initiatives for a low carbon energy transition?*” in “*Paradigms, Models, Scenarios and Practices for Strong Sustainability*”. Editors: Diemer, A. Morales, M.E., Nedelciu, C.E. Oostdijk, M. Schellens, M. Publisher: Editions Oeconomia. Pages: 239-256
29. **Candelise, C.** (2016) “*The application of crowdfunding to the energy sector* “ in *Crowdfunding for Sustainable Entrepreneurship and Innovation*, Editor: Walter Wassallo. August 2016. IGI Global. ISBN: 9781522505686
30. **Candelise, C.** (2015) “*Solar Energy, an untapped growing potential*” in *Global Energy: issues, potentials and policy implications*, Editor(s) Ekins, Bradshaw, Watson. 17th September 2015. Oxford University Press. ISBN 9780198719526. DOI:10.1093/acprof:oso/9780198719526.003.0019
31. Irvine, S. **Candelise, C.** (2014) “*Introduction and Techno-economic background*’ in *Materials Challenges: Inorganic Photovoltaic Solar Energy*”. Editors: Irvine, S. Publisher: Royal Society of Chemistry, Pages: 1-26

Reports, Working and Conference Papers:

32. COMETS, NEWCOMERS, SocialRES and SONNET (2022): Putting people at the heart of energy transitions. Social innovation in energy: four projects shine a light on the path forward. Policy brief, April 2022. Brussels/Antwerp: COMETS, NEWCOMERS, SocialRES, SONNET H2020 projects. Available at: https://sonnet-energy.eu/wp-content/uploads/2022/04/H2020_Policy-brief_final_2604.pdf
33. **Candelise, C.**, Sandwell, P. Ed. (2022) "The role of mini-grids for electricity access and climate change mitigation in India", JUICE White Paper. February 2022. DOI: 10.25561/94889
34. Sowe, J., Few, S., Schimpe M., Wu, B. **Candelise, C.**, Nelson, J. Varela Barreras, J., "How can insights from degradation modelling inform operational strategies to increase the lifetime of li-ion batteries in islanded mini-grids?" ECS PRiME Conference 2020, Honolulu, HI, USA. October 2020
35. Few, S., Djapic, P. Strbac, G. Nelson, J. **Candelise, C.** "A framework to assess local grid impacts of PV deployment, and cost-effective measures to minimise disruption, across Great Britain" 37th EU PVSEC, online, 7-10 Sept 2020
36. **Candelise C.**, Saccone, D. Vallino E. "Synergies between SDGs: an assessment of direct and indirect effects of electricity access on food security" 2nd Sustainability and Development Conference, University of Michigan, USA, October 11-14 2019
37. **Candelise C.** "Crowdfunding as a novel financial tool for district heating projects", report committed by Euro Heat and Power Association as part of EU H2020 project TEMPO (Temperature Optimisation for Low Temperature District Heating across Europe). December 2018. Available at: <https://www.euroheat.org/publications/crowdfunding-novel-financial-tool-district-heating-projects/>
38. **Candelise C.**, Ruggieri G. "Quale ruolo per i cittadini nella transizione verso le rinnovabili? Le comunità energetiche italiane: esperienze e prospettive". Gazzetta Ambiente. N6. 117-131. 2017
39. **Candelise, C.** "Crowdfunding" in *Impact Investing: la finanza a supporto dell'impatto socio-ambientale*, Ed: Forum per la Finanza Sostenibile, October 2017
40. **Candelise, C.** "Crowdfunding per lo sviluppo locale" in *Finanza sostenibile e sviluppo locale*, Ed: Forum per la Finanza Sostenibile, IEF E Bocconi, IFEL. October 2017
41. **Candelise C.**, Ruggieri G. "Le comunità energetiche in Italia: eterogeneità di approcci nelle esperienze realizzate e prospettive future nel quadro della decarbonizzazione del mercato energetico" Convegno Annuale Società dei Territorialisti "Dai territori della resistenza alle comunità di patrimonio" – Matelica 12-14 October 2017
42. **Candelise C**, Ruggieri G, "Community energy in Italy: heterogeneous institutional characteristics and citizens engagement", IEF E Working Paper N.93. May 2017
43. **Candelise, C.** "Crowdfunding in the energy sector: a smart financing and empowering tool for citizens and communities?" 9th International Conference Improving Energy Efficiency in Commercial Buildings and Smart Communities (IEECB&SC'16), Frankfurt, 16th-18th March 2016
44. **Candelise, C.**, Gottschalg, R., Leicester, P., Rowley, P. *Submission to UK Government Consultation on a review of the Feed-in Tariffs scheme.* 23rd October 2015
45. **Candelise, C.** *Crowdfunding and the energy sector.* CEDRO Exchange report. Issue 18. August 2015
46. Westacott P, **Candelise C**, *Assessing the electricity generation and grid feed-in of PV deployment within the UK*, 11th Photovoltaic Science Application and Technology (PVSAT-11), April 2015
47. **Candelise C**, *Crowdfunding: an innovative tool to finance local RES projects?*, Advanced Training Course: Integration of renewable in the Mediterranean electricity market, Organized by RES4MED (Renewable Energy Solutions for the Mediterranean), November 2014

48. Speirs, J., Gross, R. Contestabile, M. **Candelise, C.** Gross, B. "*Materials availability for low-carbon technologies: an assessment of evidence*". Report by UKERC Technology and Policy Assessment function. UKERC/RR/TPA/2014/001. September 2014.
49. Gazis, E. **Candelise, C.** Winskel, M. *Cost Leadership or Diversification? Assessing Business Strategies of PV Manufacturers Using Case Studies from the USA and the UK*. 28th EU PVSEC, Paris, 2013
50. **Candelise, C.** Black, M. Gross R. '*Study into the Socio-economic Effects of National Grid Major Infrastructure Projects – Literature Review*'. Report commissioned by National Grid. March 2013
51. Gross R, Heptonstall P, **Candelise C**, Jones, F. Castillo Castillo A, Greenacre P. *Presenting the future: An assessment of future cost estimation methodologies in the electricity sector*, 2013. London, Publisher: UKERC
52. **Candelise, C.** "*Cost Methodologies Project: PV Case Study*" UKERC working paper, July 2012: REF UKERC/WP/TPA/2013/009
53. Gross, R. Stern, J. Charles, C. Nicholls, J. **Candelise, C.** Heptonstall, P. Greenacre, P. '*On picking winners: the need for targeted support for renewable energy*' ICEPT Working Paper, Imperial College London, October 2012
54. Gazis, E. **Candelise, C.**, Winskel, M. Gross, R. '*The status and prospects of PV as an emerging technology system*'. 27th EUPVSEC, Sept 2012, Frankfurt
55. Marigo, N. **Candelise C.** '*The Rise of the Chinese Sun: Can Europe Avoid a Solar Eclipse?*' EPI Conference, 18th-19th June 2012, Parma, Italy
56. Pantaleo, A.M. **Candelise C.** '*The ESCO approach for biomass heating in industrial and residential market segments: case studies in Italy*' 20th European Biomass Conference and Exhibition. 18th-22nd June 2012, Milan, Italy
57. Jones, F. **Candelise, C.** Gross,R. '*ICEPT submission to the DECC Consultation over revision of the Feed in Tariff for small scale Photovoltaics*', Dec 2011
58. Gross, R. **Candelise, C.** '*ICEPT letter to DECC Ministers on the pace and scale of change to the PV Feed in Tariff*', Dec 2011
59. Gross, R. **Candelise, C.** '*ICEPT response to Joint Environmental Audit Committee and Energy and Climate Change Committee Call for Evidence on PV Feed-in Tariff*', Nov 2011.
60. Candelise C. Winskel M. Gross R. '*Is indium and tellurium availability a real concern for thin film PV technologies?*' presented at 26th EUPVSEC, 5th-9th Sept 2011, Hamburg
61. **Candelise, C.** Gross, B., Speirs, J., Gross, R. '*Materials Availability: Potential constraints to the future low-carbon economy*' UKERC Working Paper, April 2011
62. **Candelise, C.** Winskel, M. Gross, R. "*Toward thin film technologies cost reductions: module components costs and the role of technological innovation*" PVSAT-7 Conference, 7th Photovoltaic Science, Applications and Technology, Heriot Watt University, 6-8th April 2011
63. Winskel, M. **Candelise, C.** Jeffrey, H. Moran, B. "*Accelerating the development of emerging renewable energy technologies: research and policy challenges*". British Institute of Energy Economics Conference, 22-23 September 2010, Oxford, UK
64. **Candelise, C.** Azzopardi, B. Nelson, J. Mutale, J. Winskel, M. Gross, R. "*Emerging and mature thin film: a comparison over component materials*". 25th EU PV Solar Energy Conference, 6-10 September, Valencia, Spain
65. **Candelise, C.** "*PV deployment in the UK: an untapped potential?*". InterPV, December 2009
66. **Candelise, C.** "*Solar PV*" in "*Accelerated Development of Low Carbon Energy Supply Technologies*" ed. by Winskel, M. Markusson, N. Jeffrey, H. UKERC 2050 Project Report. 2009
67. **Candelise, C.** "*Can PV technologies contribute in achieving renewables targets in the UK? A financial appraisal perspective*". 23rd EU PV Solar Energy Conference, 1-5 Sept 2008, Valencia.
68. Winskel, M. Markusson, N. Jeffrey, H. Jablonski, S. **Candelise, C.** Ward, D. Howarth, P. "*Technology change and energy systems: learning pathways for future sources of energy*". UKERC Working Paper. 2008

69. Tiravanti G., Pantaleo A., **Candelise C.**, Fanelli A. "*Investments in energy saving measures in Italy and UK: the impact of national support schemes on the business strategies of an ESCO*". ECEEE summer study, 4-9 June 2007 Côte d'Azur, France.

SELECTED PRESENTATIONS and PANELS ORGANIZATION

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- Invited speaker at H2020 Project TEMPO Workshop "Value Propositions and Business models for new technologies in LTDH", with presentation on "Crowdfunding as a novel financing tool for district heating", 15th December 2021
- Presenter the paper "Characterization of European Collective Action Initiatives and their role as enablers of citizens' participation in the energy transition" at the 8th EMES International Research Conference on Social Enterprise, 6th October 2021
- Invited lecture on "PV technologies application to improve energy access, a focus on microgrids" at the 3rd workshop organized by JUMP2Excel H2020 project, hosted by University of Manchester, 1st June 2021
- Invited presentation on "Status and evolution of the community energy sector in Italy" at the international conference "Legal and Economic Perspectives of Energy Cooperatives' Development in Poland and other countries" organized by University in Poznań, 27th May 2021
- Invited to present on "Le comunità energetiche come strumento di partecipazione alla transizione energetica" at technical workshop in support of Strategia Regionale Sviluppo Sostenibile Regione Calabria, 2nd March 2021
- Organization of the panel "Energy communities and justice in the energy transition" at the AISSEC (Italian Association for the Study of Comparative Economic Systems) XXI Scientific Conference "Comparative perspectives on economic development and inequalities", 1-2 October 2020 (online)
- Presented at EUPVSEC2020 conference "A framework to assess local grid impacts of PV deployment and load growth, and cost-effective measures to minimise disruption across Great Britain" 10th September 2020 (online)
- Organizer and speaker at first national workshop of H2020 COMETS project, "Le iniziative di azione collettiva nella transizione energetica" 19th June 2020 (online)
- Invited speaker at webinar on "Financing Innovation in District Heating" organized by EuroHEat and Power, presenting "Crowdfunding as a novel financial tool for district heating projects", 14 May 2020 (online)
- Panel speaker at "The India-UK Joint Virtual Clean Energy Centre (JVCEC), 2nd Annual Conference" with paper on: "A modelling framework for microgrid system sizing and analysis: Case study of Mount Abu Spiritual Centre, Rajasthan", Jaipur, India, 12-14 September 2019
- Invited to give seminar on "Community energy in Italy: lessons from evidence", at European Commission Joint Research Centre (JRC), as part of the workshop on "Local Communities and Social Innovation for the Energy Transition", Ispra, 22nd-23rd Novembre 2018
- Invited to give seminar on "Community energy in Italy: heterogeneous institutional characteristics and citizens engagement", at European Commission Joint Research Centre (JRC), Ispra, 23rd February 2018
- "Analysis and assessment of embedded PV generation network impacts and potential measures to mitigate them to increase PV hosting capacity. Focus on UK and India". ICAER 2017: 6th International Conference on Advances in Energy Research". Mumbai, India 12-14 December 2017
- "Community energy in Italy: lessons from existing evidence" 6th EMES Conference, 3-6 July 2017, Louvain-la-Neuve

- Invited speaker at webinar “Finanziamento innovativo di impianti fotovoltaici: cooperative e ‘equity crowdfunding’” PV Financing, Quale Energia. May 2017
- Invited speaker at “Finanziare lo sviluppo locale sostenibile: inquadramento generale”, Seminar organized by Forum finanza Sostenibile, ANCI Lombardia. Milan. March 2017
- Invited panel speaker at CrowdFundRES European Policy Workshop, 16th February 2017, Brussels
- Invited organizer and speaker at “Teleriscaldamento e rinnovabili: strumenti finanziari innovativi”, by SmartReFlex project and ANCI Emilia Romagna, Bologna, 14th december 2016
- Invited panel speaker at CrowdFundRES workshops, 24th May 2016 at Hotel Silken Berlaymont, Blvd Charlemagne 11/19, Brussels
- “Innovation in energy finance: the use of crowdfunding”, Fifth Mannheim Energy Conference 2016, 19-20 May 2016, Mannheim
- “Crowdfunding in the energy sector: a smart financing and empowering tool for citizens and communities?” 9th International Conference Improving Energy Efficiency in Commercial Buildings and Smart Communities (IEECB&SC'16), Frankfurt, 16th-18th March 2016
- Invited panel speaker at Seminar “L’energia condivisa in Italia: incontro fra sociologi e cooperanti”, organized by Banca Etica, 20th Novembre 2015, Padova
- Invited panel speaker at Carbon Expo Conference, Barcelona, 28th May 2015 (<http://www.carbonexpo.com/>)
- Invited panel speaker at Focus Group “Rinnovabili termiche in Emilia Romagna”, organized by EU IEE project SmartReFlex. 1st December 2014, Bologna
- “Crowdfunding: an innovative tool to finance local RES projects?”, at Advanced Training Course: Integration of renewable in the Mediterranean electricity market, Organized by RES4MED (Renewable Energy Solutions for the Mediterranean), November 2014