STRACHAN, P. 2024. NIBES research spotlight: the Energy, Sustainability and Society Research Group. Presented at the 28th Network of International Business and Economics Schools (NIBES) annual meeting 2024, 17th June 2024, Aberdeen, UK.

NIBES research spotlight: the Energy, Sustainability and Society Research Group.

STRACHAN, P.

2024

ROBERT GORDON UNIVERSITY ABERDEEN

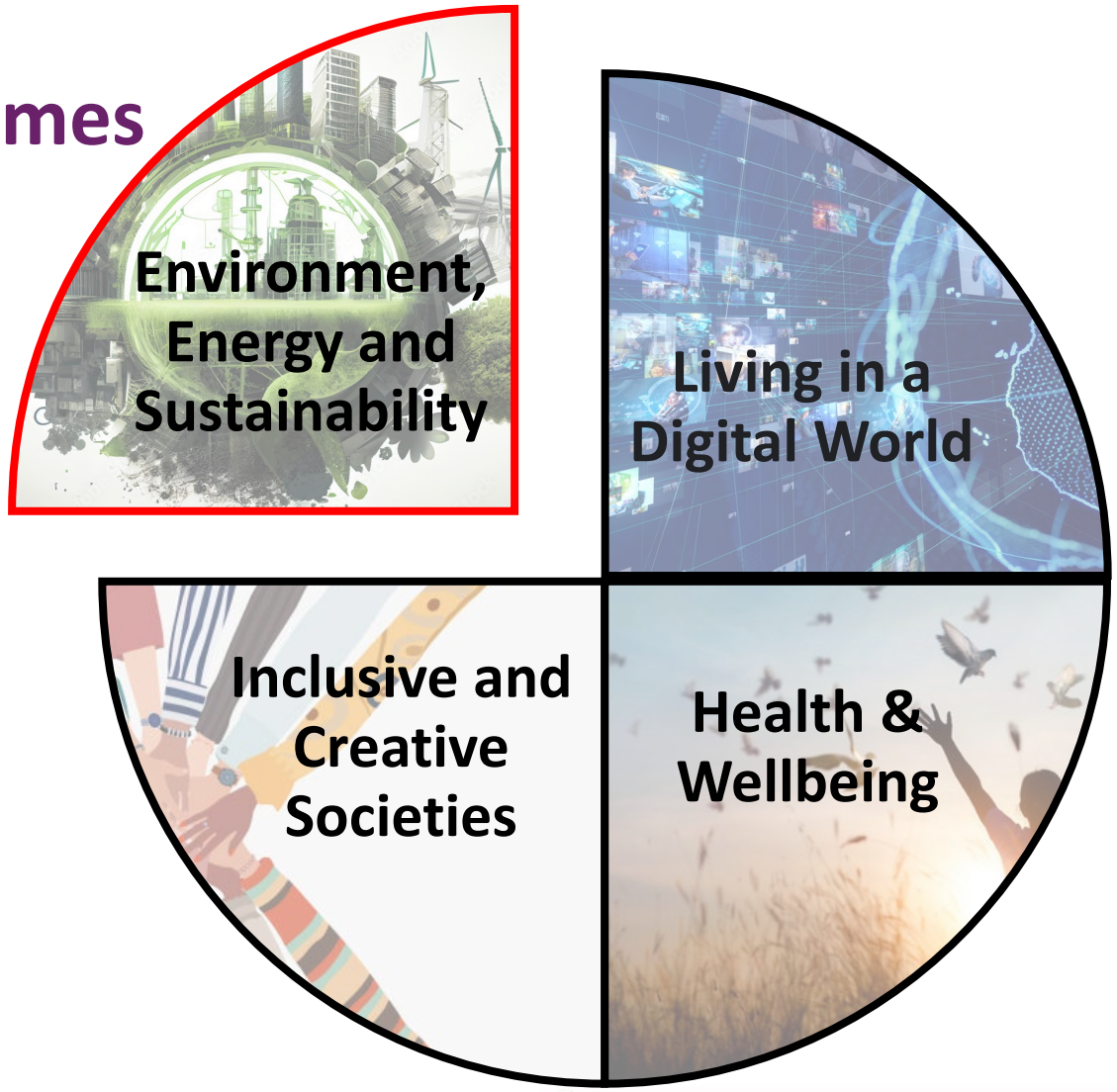
NIBES Research Spotlight: The Energy, Sustainability and Society Research Group

Professor Peter Strachan
Research Group Leader
p.a.strachan@rgu.ac.uk

RGU: Interdisciplinary Research Themes

“Environment, Energy and Sustainability”

“Focused on addressing many of the global challenges set out in the UN Sustainability Goals, this theme brings together researchers who approach these issues from a breadth of disciplinary perspectives that include the life sciences, engineering and computing but also embraces the social sciences and business disciplines”



The Energy, Sustainability and Society Research Group

Scholarly Focus

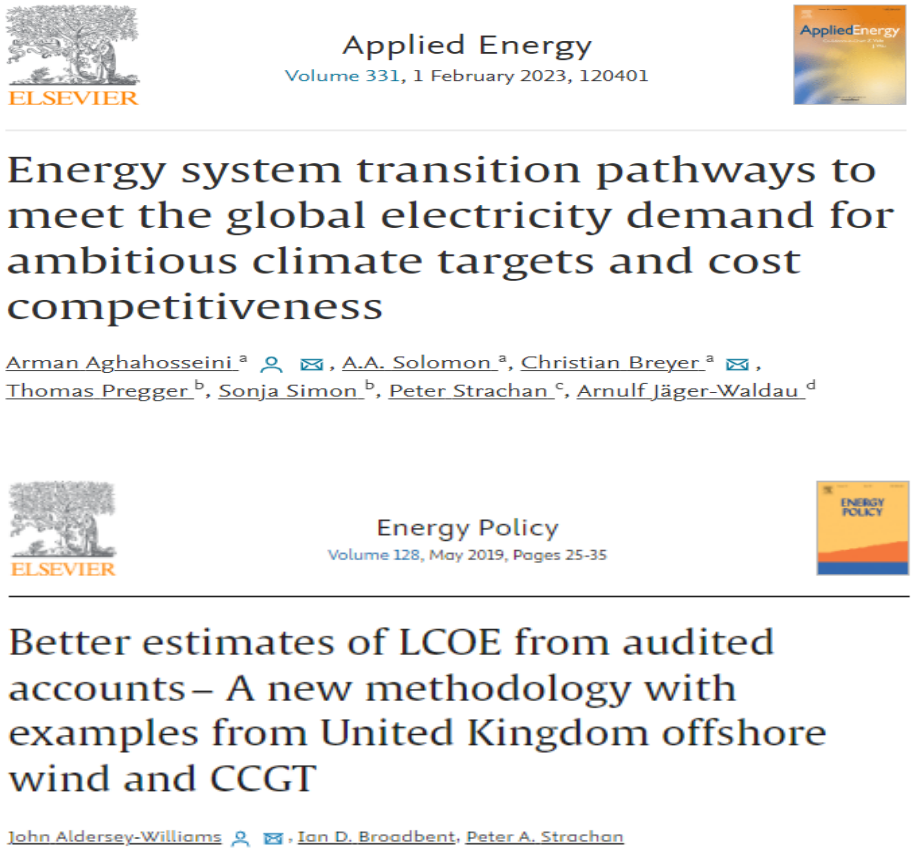
The Group aims to facilitate an inclusive forum to share current and planned research-centred scholarly activities, stimulate considered debate, and inspire new investigations of contemporary societal issues, with a particular but not restrictive focus on issues relating to energy and sustainability, to enhance and enrich our research environment, activities and outputs

SUSTAINABLE DEVELOPMENT GOALS

Accelerating Global Pathways to Sustainable Energy Deployment – Professor Peter Strachan

Research Focus: Energy Policy, 100% Renewable Energy Pathways, Energy Transition, and Net Zero

- Global Decarbonisation Pathways, with recent published output in *Applied Energy.*
- European Wind Power Deployment, with past published outputs in *Energy Policy.*
- Sub-National Government and Pathways to Sustainable Energy, with past published outputs in a variety of journals including *Regional Studies.*
- Professor Strachan's work is closely aligned with SDGs 7, 9, 11 and 13.



ELSEVIER

Applied Energy
Volume 331, 1 February 2023, 120401

Energy system transition pathways to meet the global electricity demand for ambitious climate targets and cost competitiveness

Arman Aghahosseini [a], A.A. Solomon [a], Christian Breyer [a], Thomas Pregger [b], Sonja Simon [b], Peter Strachan [c], Arnulf Jäger-Waldau [d]

ELSEVIER

Energy Policy
Volume 128, May 2019, Pages 25-35

Better estimates of LCOE from audited accounts – A new methodology with examples from United Kingdom offshore wind and CCGT

John Aldersey-Williams, Ian D. Broadbent, Peter A. Strachan

ConsenCUS: Carbon Neutral Clusters through Electricity Based Innovations in Capture Utilisation and Storage

Professor Zoe Morrison, Dr Kostas Stavrianakis and Dr Jacob Nielsen

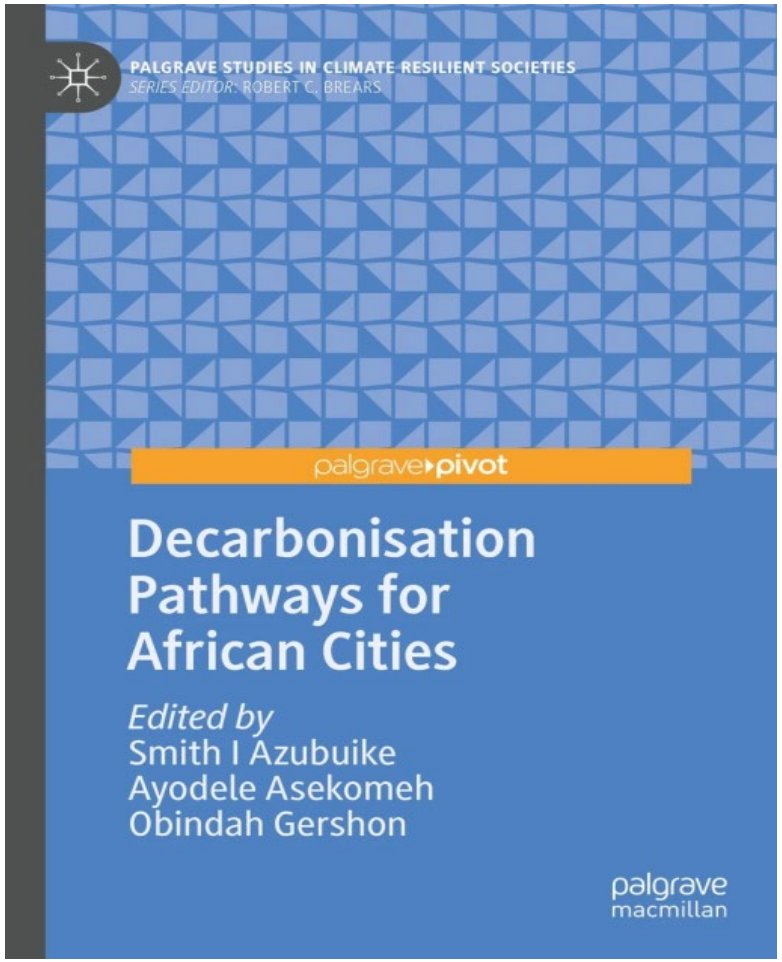
- A four-year Horizon project funded by the EU. Collaboration with 19 partners in 7 countries.
- Peer Review Publications:
  - Nielsen, J. A., Stavrianakis, K., & Morrison, Z. (2022). Community acceptance and social impacts of carbon capture, utilization and storage projects: A systematic meta-narrative literature review. *PLoS One*, *17*(8), e0272409.
  - Stavrianakis, K., Nielsen, J., & Morrison, Z. (2023). Public perception and acceptance of CCUS: preliminary findings of a qualitative case study in Greece. *Open Research Europe*, *3*.
- This project is closely aligned with SDGs 7 and 13.

Localisation of Sustainable Development Goals in a Developing Country Context: Accounting and Reporting Implications

- A three-year funded project by the Social Sciences and Humanities Research Council of Canada to understand the dynamics of translating the SDGs into national policy/strategy, infrastructure and regulatory circles.
- The project investigates the interplay between the technical and political (state-coordinated process of ‘counting’ and ‘count-ability’) underpinnings of accounting and reporting, and the development policy implications focusing on SDGs 1, 3 and 4.
- The project focuses on four African countries: Tanzania, Ghana, Benin and Mauritius.

Professor Sarah Lauwo

Decarbonisation Pathways for African Cities (Book)



- Published as part of the Palgrave Studies in Climate Resilient Societies book series, Dr Ayodele Asekomeh's co-edited book examines the pathways to decarbonising African cities, structured around strategies and applications in renewable energy, waste management, healthcare, telecommunication, education and governance reconfigurations for Petro-cities.
- At the book launch (a hybrid online and in-person event hosted by Durham University) on 24 May 2023, Professor Peter Strachan was the book reviewer. Dr Asekomeh served as a discussant and presented his chapter contribution, "To Opt-in or to Cop Out: COP26 and the Policy Dynamics of Decarbonising African Cities" (Chapter 9), that proposes mechanisms for translating COP26 takeaways to decarbonisation policies.
- Dr Asekomeh's work is aligned with SDGs 7, 9, 11 and 13.

Promoting Renewable Energy Transition Pathways in Africa

Research Focus: Clean Technology, Energy Transition and Net Zero

- Presented and participated in the Resilient Planet Symposium by the International Science partnership funds in collaboration with the British Council in Delhi, India, 2024 on “Clean energy development”.
- Presented at the online seminar by The Progress Playbook in collaboration with Cambridge Institute for Sustainable Leadership 2024 on “Advancing grid-connected wind and solar energy adoption in Nigeria: exploring the dynamics of socio-technical transitions”.
- Presented at NIBES 2024 on “Making the net zero transition: is it a case of the beginning of the end of the fossil fuel era?”.
- Dr Adedokun’s research is aligned with SDGs 7, 9, 11, 13 and 16.

Dr Racheal Adedokun

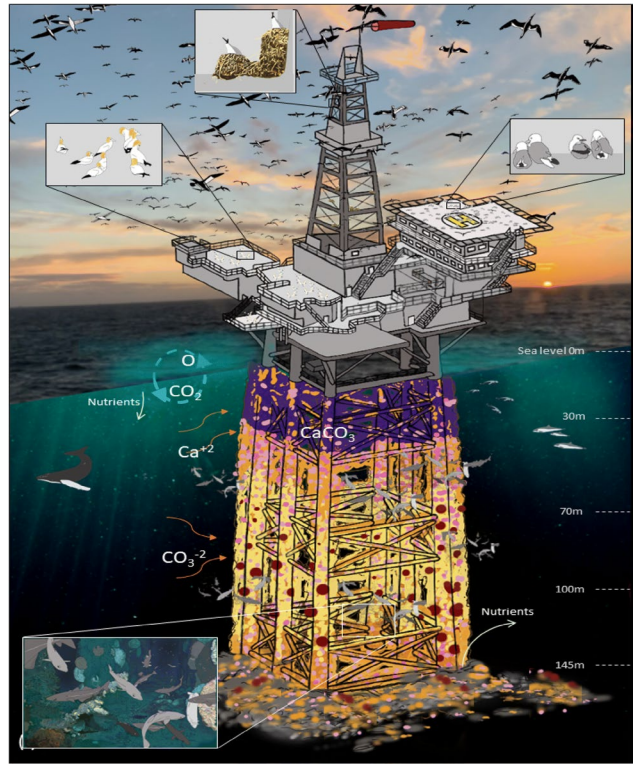
Consumer Preferences for Environmental Goods and Services

Dr Bridget Menyeh presenting at the H2A Accelerator workshop at the RSE

- Dr Bridget Menyeh's research focuses on understanding human behaviour and decision-making processes related to environmental sustainability.
- Her past work has examined investor preferences for renewable energy investments using discrete choice modelling and other participatory research techniques.
- Current work is focused on hydrogen vehicle public awareness and perception.
- Dr Menyeh's work is aligned with SDGs 7 and 13.

The Environmental Impact of Decommissioning: Quantifying Greenhouse Gas Emissions

- Dr Abigail Davies has developed new methods and models for quantifying GHG emissions from decommissioning in the marine environment by combining the circular economy, waste hierarchy and UN's value retention model to holistically quantify GHG emissions.
- Current methods under-report GHG emissions by at least 50%, and therefore are not fit for purpose.
- Future challenges of decommissioning have been highlighted, with GHG emissions due to decommissioning modelled to reach over 5GtCO_2e by 2067 – 17 years after Net Zero should have been achieved.
- Dr Davies work is aligned with SDG 13.



Human Factors in Wind Energy

Dr Ruby Roberts, Chancellor's Fellow of Industrial Psychology

- Human Factors in offshore wind for safety and training
  - Dr Ruby Roberts is currently a PI on a Royal Society of Edinburgh Small Grant (2024-25) project:
    - Stakeholder mapping of human factors influencing wind technician safety and performance (workshop 1 n=34; workshop 2 August 2024)
    - Renewable UK Global Offshore Wind Conference (June 2024)
- Psychology of Technology Adoption (2018-2022; Net Zero Technology Centre)
  - Dr Roberts has developed a novel framework of the less visible psychological factors impacting on corporate technology and innovation adoption (PTAF) in the oil industry,
  - Resulted in three publications including a case study (Roberts et al. (2021). *Technovation*, DOI:10.1016/j.technovation.2020.102219) with over 8,000 Elsevier downloads with 87 citations to date.
  - Commercial output: organisational technology adoption culture measure.
- Dr Roberts work aligns with SDGs 7, 8 and 9.

Decarbonising Heating and Fuel Poverty: Causes, Policy Implications, and Next Steps

- Dr Anita Singh's work is currently focused on decarbonising heating and tackling fuel poverty - two of the biggest challenges before the UK economy.
- Using Structural Equation Modelling her research evaluates the main causes and immediate impacts of fuel poverty and how decarbonisation targets can be achieved while combating the problem.
- Dr Singh's work is aligned with SDGs 7 and 13.

Dr Anita Singh presenting at All Energy Conference, Glasgow

Pathways to Sustainability: An investigation into the challenges and opportunities for SMEs in Scotland

Dr Nicola Croxton and Dr Eleni Kesidou

- Dr Nicola Croxton and Dr Eleni Kesidou's research seeks to understand how SMEs operating in the oil and gas supply chain navigate the net zero agenda, to become a more sustainable enterprise.
- Taking an interdisciplinary approach and combining entrepreneurship and nonmarket strategy, they are investigating how SMEs utilise their resources to address challenges and opportunities in this context.
- Dr Croxton and Dr Kesidou's work is aligned with SDGs 7, 9 and 11.

Application of the Systemic Lessons Learned Knowledge model to Learning in Complex Projects: How Project Practitioners are Shaping their Learning

- Dr Oluyomi Osobajo's current research project seeks to explore how learning is articulated, and knowledge creation encouraged among project practitioners in complex projects.
- His previous research has addressed contemporary issues in the field of Project Management, Supply Chain Management and General Management.
- Dr Osobajo's work is aligned with SDGs 9, 11, 12 and 17.

Dr Oluyomi Osobajo

AI for Risk Management in Energy Companies

Contents lists available at ScienceDirect

European Journal of Operational Research

journal homepage: www.elsevier.com/locate/ejor

Innovative Applications of O.R.

Analysis of futures and spot electricity markets under risk aversion

Fernando S. Oliveira[a], Carlos Ruiz[b,1,*]

DOI: 10.1111/deci.12536

ORIGINAL ARTICLE

DECISION SCIENCES
A JOURNAL OF THE DECISION SCIENCES INSTITUTE
WILEY

Procurement risk management in a petroleum refinery

Fernando S. Oliveira

- Professor Fernando Oliveira has an impressive research portfolio.
- His research interests include:
  - Risk Management;
  - AI for long-term decision making and planning;
  - Renewable energy;
  - Energy poverty; and,
  - Power purchasing agreements.
- Professor Oliveira's work is aligned with several of the SDGs including SDG 7.

PhD Student – Case Study

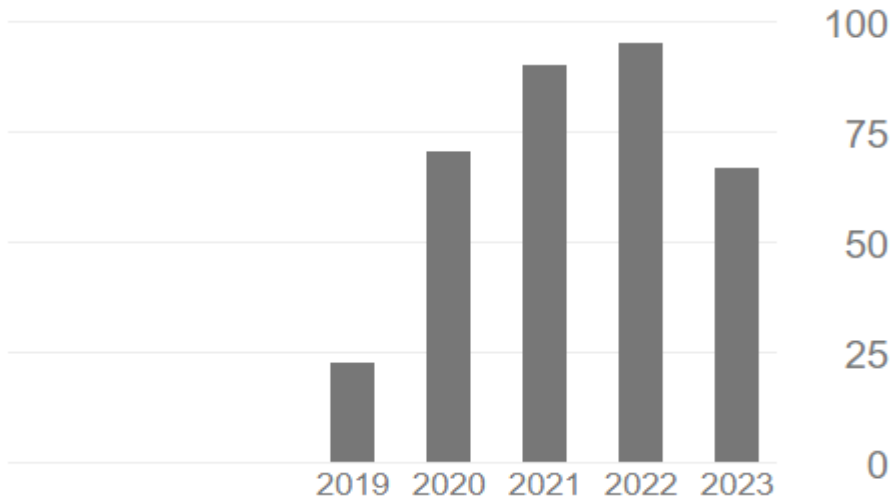
John Aldersey-Williams

Redfield Consulting Limited
Verified email at redfieldconsulting.co.uk

Decarbonisation transition renewable energy

Cited by

	All	Since 2018
Citations	355	352
h-index	4	4
i10-index	3	3



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Energy Policy
Volume 124, January 2019, Pages 169-179

Levelised cost of energy – A theoretical justification and critical assessment

J. Aldersey-Williams [a], T. Rubert [b]

ELSEVIER

Energy Policy
Volume 153, June 2021, 112240

Policy Perspective

Addressing recent misreporting of findings from "Better estimates of LCOE from audited accounts – A new methodology with examples from United Kingdom offshore wind and CCGT"

John Aldersey-Williams, Ian D. Broadbent, Peter A. Strachan

ELSEVIER

Energy Policy
Volume 128, May 2019, Pages 25-35

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nature energy

ELSEVIER

Utilities Policy
Volume 62, February 2020, 100985

energies

NIBES: Building New Research Collaborations