

ACADEMIC NETWORKING EVENT

Exploring the socio-economic dynamics of
utility-scale renewable energy in South Africa's
Just Energy Transition

31 July 2024



INTRODUCTION

On 31 July 2024, a group of practitioners, students and researchers gathered at the UCT Graduate School of Business in Cape Town as part of an Academic Networking Event with a shared focus on the socio-economic dynamics of utility-scale renewable energy in South Africa's Just Energy Transition. The event was a collaboration between Centre for Sustainability Transitions, Initiative for Social Performance in Renewable Energy (INSPIRE) and POWER FUTURES LAB. The event, which was the third of this kind over the past 6 years, was skillfully facilitated by Alison McCallum from Social Resonance, who designed an agenda that allowed for an interactive and energetic programme. Previous Academic Networking events were held by Stellenbosch University in 2017 and University of Cape Town in 2016.

The key aim for the workshop was to explore how to develop the academic capacity to support the renewable energy industry and

deepen community impact and socio-economic development in support of the national commitment to a Just Energy Transition.

A critical starting point in imagining this gathering was an orientation towards transformative research, "defined as the ensemble of methods and concepts enabling academics to take an active role in processes of societal change by developing knowledge about options, solutions, and pathways, and by participating in their implementation" (Marciniak et al., 2024: 2). The gathering was significant in affirming that an aspiration for such research calls for researchers and practitioners alike, to engage in new and collaborative ways - which often goes against the grain of how these 'science-policy-practices' interactions take place.

The workshop objectives were:



To strengthen a network of students, researchers and practitioners



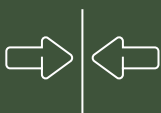
To deepen understanding of the different research efforts and approaches underway



To allow for sharing and peer learning in support of knowledge co-creation



To identify emerging research topics going forward



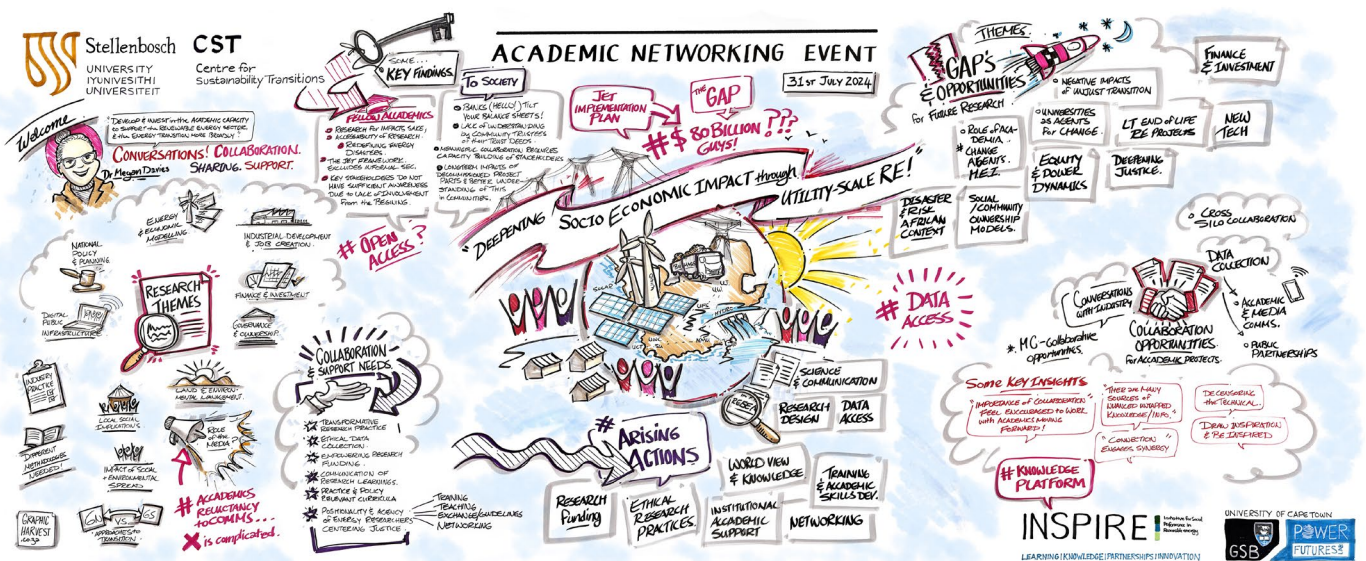
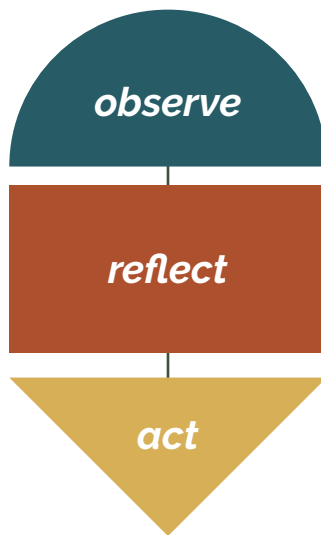
To create alignment between research approaches and challenges faced by practitioners on the ground and in the sector

The Academic Networking Event garnered considerable interest, with more than 60 registrations. On the day we welcomed a diverse group of around 35 people, as well as a small group online who were not able to attend in person. Represented in the group were participants from higher education institutions, NGOs and private sector organisations which allowed for balanced representation from academic and professional settings. Postgraduate researchers, including PhD and Masters students from five South African universities participated, with a strong emphasis on inter- and transdisciplinary studies in sustainability, environmental management and energy transitions. These included the University of Cape Town, the University of the Western Cape, Stellenbosch University, the University of the Free State, and the University of the Witwatersrand. A handful of senior researchers and academics brought in scholarly rigour and included pragmatic perspectives on the institutional environments informing academic research. Research professionals for the NGO and private sector, many with international partners or footprints allowed for a different vantage point on research, and the importance of bridging academic and practice-oriented research and practice. A range of professionals and specialist consultants enriched discussions around the

practice and implementation of South Africa's Just Energy transition, and brought in vital industry experiences.

The composition of the group attending the Academic Networking Event benefited from a balanced representation from academic and professional attendees at a range of career stages. One critical insight was the large number of working professionals undertaking part-time postgraduate studies, both at the Master and PhD level. In part, this is reflective of a set of structural dynamics around postgraduate studies at South African universities, but is also indicative of the opportunities for embedded and action-oriented research that is responsive to the lived experiences and challenges of professionals.

The gathering was structured around three key ideas: *observe*, *reflect* and *act*. Firstly the group was guided to *observe* the research topics, methods and approaches underway and then to synthesise emerging research findings and themes. Secondly, we shifted to *reflect* on research gaps and opportunities for enhanced collaboration and impact. And thirdly, we moved to consider how best to *act* on learnings by harvesting actions and priorities.



Grant Johnson from Graphic Harvest captured the Academic Network Event in visual form. www.graphicharvest.co.za

WELCOME | Who is in the room and why? What brings us together?

What impact do you hope to have in the RE sector through your research and / or practice?



After informal introductions, attendees shared more about their aspirations for how their research and practice might contribute to South Africa's Just Energy Transition visual form.

- Strengthen practice and informing policy
- Inform disaster risk reduction of renewable energy development
- Understand impacts of utility-scale renewable energy on communities and stakeholders
- Address land and spatial dynamics and regional disparities
- Stimulate job creation and green industrialisation
- Promote investment in affordable renewable energy in Africa
- Enhance social-economic outcomes in the deployment of utility-scale renewable energy
- Facilitate equitable access to finance unlocked by the JET
- Promote social performance in the industry

OBSERVE | Exploring research themes, challenges and emerging findings

Research themes

Taking stock of the diverse work underway across the group, the following thematic research and practice areas were distilled. Each represents distinctive entry points to advance South Africa's Just Energy Transition and in turn, entail a range of disciplines and methods.

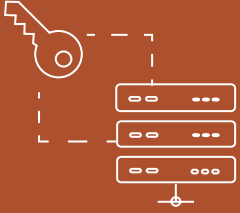




- ▶ National policy and planning
- ▶ Energy and economic modelling
- ▶ Technical and feasibility studies of RE technologies
- ▶ Industrial development, livelihoods and job creation
- ▶ Finance and investment
- ▶ Governance and ownership
- ▶ Land and environmental management
- ▶ Local socio-economic implications
- ▶ Industry practice and social performance
- ▶ Digital public infrastructures
- ▶ Media and science communication

Reviewing this array of research themes, the group noted how a global south perspective on just energy transitions seemed to be something that researchers and practitioners alike were grappling with. Exploring research activities in this way also revealed the diversity of methodologies employed across the group, from quantitative modelling with extensive national datasets, to place-based case studies, spatial and economic analyses, and explorative and mixed methods. What emerged too, was a sense of shared and common goals with a diversity of concepts and frameworks to approach these.



Challenges

A range of challenges to conducting transformative research in support of South Africa's Just Energy Transition also emerged. These were especially pertinent for the postgraduate students and academics in the group, who described the hurdles they face in advancing relevant and impact research.

DATA ACCESS		The availability of and access to critical data can inhibit the critical exploration of research questions. Stakeholders, especially those in industry or government, are often inaccessible or else reluctant to share information.
RESEARCH PROCEDURES		Conducting research entails often onerous procedures that pose challenges to postgraduate students. Necessary institutional guardrails and requirements to ensure ethical research run the risk of presenting additional hurdles to postgraduate students, especially without sufficient supervision support.
POSTGRADUATE RESEARCH SUPPORT		Funding, capacity and resources to support postgraduate research can be limited or insufficient. This poses challenges to postgraduate students and supervisors alike. For example, limited funding for postgraduate bursaries limits the opportunities for full-time studies and the scope of research projects and capacity available for supervision and academic support.
STAKEHOLDER ENGAGEMENT		Navigating the complexities of diverse stakeholders can pose challenges to research. For example, engaging with communities and navigating power dynamics, positionality, engagement fatigue and expectations require certain awarenesses and competencies.
IMPACT EVALUATION		Measuring the impact and contribution of academic research can be challenging, without clear frameworks for reflection, monitoring and learning. When conducted for the purposes of academic qualifications or research outputs, the responsiveness to 'real world' impact in the form of policy or practice relevance is often under emphasised.

REFLECT | Considering research gaps and opportunities for enhanced collaboration and impact

Research opportunities

The following areas were identified as critical research opportunities where further exploration and inquiry is necessary. These have the potential to shape postgraduate studies, joint research projects or funding proposals.

- Linking energy transition and disaster risk reduction
- Exploring land and spatial dynamics and possibilities for multifunctional landscapes that support resilient livelihoods
- Deepening collaboration and stakeholder engagement of industry stakeholders in the planning, implementation and tracking of community investments and relations
- Strengthening governance and public accountability in South Africa's JET
- Investigating regulatory dimensions linked to electricity subsidies and tariffs
- Grappling with equity, justice and power dynamics in Global South contexts
- Integrating diverse knowledges and worldviews in just energy transitions research
- Exploring the role of new and emerging technologies in the energy transition
- Interrogating finance and investment linked to the JET-IP, including the agency of financial actors and intermediaries to support broader outcomes
- Exploring the socio-economic implications, social acceptance and environmental management of transmission infrastructure
- Examining the cost and impact of non-price elements in corporate or private power purchase agreements
- Furthering mechanisms including financing options to advance social ownership of generation and transmission infrastructure
- Advancing skills matching for green industrialisation
- Examining decommissioning and waste management of renewable energy technologies
- Facilitating engagements between local government and the renewable energy industry



Collaboration and support needs

A key objective for the Academic Networking Event was to clarify precisely how to develop the academic and research capacity to support the renewable energy industry and deepen community impact and socio-economic development. The following six priority areas emerged.

1. Transformative research practices

To cultivate the values and competencies for societally relevant and impactful research, we need to invest in developing transformative research practices approach to Global South contexts such as South Africa.

- What does transformative research mean in our South African context, and how does this become embedded and practised in our higher education institutions?
- How might collaborative approaches to research design be facilitated (especially for postgrad students), and how can research projects be shaped around real world questions?
- How can power imbalances in the constitution of research projects be subverted, to allow for equitable participation of diverse stakeholders and knowledges?

2. Ethical data collection

Ensuring ethical and responsible engagement practices within academic and industry research is critical for safeguarding the principles enshrined in South Africa's Just Energy Transition.

- Can academic research protocols for getting research ethics approval be engaged with as more than a compliance-based activity?
- How can ethical research protocols be instilled in research conducted by industry players?
- Might ethical research practices broaden access to data and information, and strengthen stakeholder relationships?
- What are the possibilities for broadening knowledge commons for equitable access to information?

3. Research funding and support

Access to empowering research funding and capacity is critical for strengthening the academic capacity in South Africa. Expanding funding for postgraduate studies, supervision and academic development must be prioritised at higher education institutions, and in how they work together with societal and policy partners.

- How can we better share relevant funding calls/tenders to prospective and current postgraduate students?
- How can the academic community encourage potential funders to invest in research about socio-economic dynamics in the JET?
- How can South African research institutions secure more relevant funds to lead more critical and applied research endeavours?

4. Communication of research learnings

Revitalising science communication has the potential to leverage research findings. Students and researchers may lack the skills and network to communicate their findings to a wider and diverse audience. Moreover, research insights generated by academic work in the Global South and by both emerging and established researchers in local institutions do not get sufficient exposure and reach.

- How can students and researchers be more confident and comfortable sharing their work in public settings?
- How can researchers and academics look beyond conventional research outputs to broaden their reach and relevance?
- Can the media play a stronger role in translating appropriate academic findings for diverse stakeholders?

5. Practice and policy relevant curricula

Embedding policy and practise into curricula more strongly can ensure that graduates are equipped with knowledge and skills to contribute to South Africa's Just Energy Transitions. Moreover, this requires ensuring that undergraduate and postgraduate teaching, learning and assessment practices at higher education institutions are aligned with industry and societal needs.

- How can voices and experiences of practitioners be brought into formal learning spaces?
- What skills, knowledges, and values are necessary for graduates to contribute to South Africa's Just Energy Transition?
- What does a transformative learning experience entail in diverse South African higher education institutions?

6. Positionality and agency of energy researchers centering justice

For scholars and practitioners alike, cultivating the knowledge and competencies to centre justice in their work requires care-full individual and collective work. Conceptions of justice, equity and power must be responsive and appropriate to global south contexts.

- How can notions and principles of justice be advanced that speak to Global South contexts more richly?
- How can alternative knowledges and worldviews be cultivated?
- How can academic reflection support individual and collective thought on transformational practice?

ACT | harvesting actions and priorities

The following five modes of action emerged from the Academic Networking Event. Collectively defined and jointly executed activities across these dimensions have the potential to strengthen academic-industry partnerships, enhance knowledge sharing and capacity building, align research efforts with the needs of South Africa's Just Energy Transition, and more broadly, promote transformative research practices.

Training

Teaching

Exchange

Guidelines

Networking

Closing | What one key insight do you take away with you today that has implications for your research and / or practice?

The Academic Networking Event concluded with attendees reflecting on key insights for their research and practice.

- Willingness towards and importance of collaboration, including the proactive engagement from all stakeholders
- Significance of including diverse perspectives, recognising untapped knowledges and marginalised voices
- Improving and deepening stakeholder and community engagement that is meaningful and goes beyond compliance
- Decentering technology and emphasising the social, political and economic aspects of the Just Energy Transition
- Expanding resources and funding support for research that goes beyond conventional research outputs such as journal articles and papers to consider the broader implications
- Importance of inter-, multi- and transdisciplinary research and the use of different methodologies and research approaches
- Importance of science communication and considering new approaches and formats to share research findings

Conclusion

This report captures the insights and ideas that emerged at the Academic Networking Event. The priority areas and modes of action described here provide a foundation for enhanced collaboration and capacity building.

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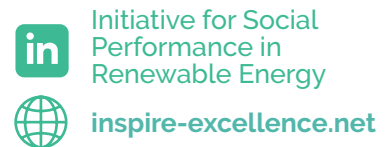
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