



For Immediate Release

University of Johannesburg Unpacks the Real Potential of Green Hydrogen for South Africa

Johannesburg, South Africa, 28 July 2025 — As the global spotlight intensifies on green hydrogen as a strategic clean energy solution, the Public and Environmental Economics Research Center (PEERC) at the University of Johannesburg is stepping forward to support national awareness and public understanding. Through its work in applied research and public policy, PEERC is unpacking what green hydrogen is, how South Africans can access it, and what kind of society this emerging energy economy could help build.

Green hydrogen is produced through electrolysis, a process that uses renewable energy to split water into hydrogen and oxygen, without releasing carbon emissions. This makes it a critical alternative for decarbonising hard-to-abate sectors like long-haul freight, cement production, and heavy industrial processes. South Africa holds a unique position in the global hydrogen landscape, with significant solar and wind resources, platinum group metals used in fuel cell technology, and a growing body of energy research and development.

Momentum has grown following the African Green Hydrogen Summit held in Cape Town in June 2025, where more than R1 billion in green hydrogen investments was announced. Projects such as the Prieska Power Reserve and Hive-Coega Green Ammonia Project highlight the scale and ambition of green hydrogen initiatives already underway. These projects demonstrate industrial potential, but also underline the need for coherent national policy, infrastructure readiness, and an inclusive public conversation.

One of the most pressing issues emerging from international research is the impact of green transitions on labour markets. According to modelling by Dr. Ulrike Lehr and the World Bank, published in the *Heading Towards 1.5°C Jobs Working Paper Series*, clean energy transitions do not simply create jobs, they restructure them. Job losses are projected in coal mining, oil and gas extraction, and high-emission heavy industries. At the same time, job growth is expected in construction, electrical infrastructure, clean energy logistics, and energy efficiency services.

“South Africa must plan now to ensure that the green hydrogen economy doesn’t just benefit a few, but becomes an engine for inclusive growth,” says Ms Phindile Nkosi, Director of the Public and Environmental Economics Research Center. “This means investing in people, especially women and youth, and making sure local communities see real improvements in their daily lives.”

Labour market restructuring brings both opportunity and disruption. PEERC’s research points to the importance of preparing South Africa’s workforce for this shift.



This includes supporting upskilling in science, technology, engineering and mathematics (STEM), expanding vocational training, and ensuring strong links between higher education, industry and public investment. The success of the green hydrogen economy will depend not only on technology and funding, but also on how equitably its benefits are distributed across different sectors and regions.

Gender equity is another key consideration. International simulations show that green investments often concentrate in male-dominated sectors such as engineering and transport. Women, who are underrepresented in the energy and technical trades, may be excluded unless targeted measures are put in place. Increasing female labour force participation in green industries, through early engagement in STEM, dedicated training pathways, and inclusive hiring policies, is vital for a just transition. Green economies should not only be cleaner, but also fairer.

“If we want the green transition to be truly just, we must proactively design policies that create jobs for women, not just men,” adds Dr. Ulrike Lehr, Senior Economist at the Jobs Group at the World Bank. “Green hydrogen is a sector full of potential, but that potential must translate into shared opportunity.”

PEERC emphasises that the pathway to a greener society must include strong public institutions, community participation and accountable governance. Green hydrogen must serve more than export markets. It should support cleaner public transport, unlock economic development in rural and peri-urban areas, and contribute to building more resilient and inclusive local economies.

Research, education and communication will play a central role in shaping the future of this sector. PEERC continues to work across academia, civil society and government to ensure that green hydrogen is understood not just as a technical innovation, but as part of a long-term public interest agenda.

In celebration of Women’s Month, PEERC will host an online webinar with Dr. Ulrike Lehr where she will unpack the topic “**Jobs from greening – also for women?**”

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Press Release distributed by Ingenious Holdings on behalf of The Public and Environmental Economics Research Center (PEERC)

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About the Public and Environmental Economics Research Center (PEERC)

The Public and Environmental Economics Research Center (PEERC) is a specialist research unit at the University of Johannesburg, focused on advancing public policy in support of inclusive, sustainable development. Through applied economic research, stakeholder engagement and evidence-based analysis, PEERC works to inform South Africa's transition towards environmental justice, energy equity and economic resilience.