

Underdeveloped Business Models:

Many private-sector business models for green hydrogen and derivatives, PtX products, CRM, and battery precursors lack commercial viability, hindered by high capital costs, limited offtake agreements, and insufficient government support. South Africa's low credit rating increases production costs by 40–50% compared to developed countries, necessitating blended financing approaches.

Capacity and Coordination Gaps:

Public-private coordination has improved, but poor integration remains a challenge. Provincial governments, new companies, and civil society actors lack access to information and resources for effective decision-making. Ensuring local benefits and community involvement is critical for project success and public acceptance.

Gender Inequality:

The Constitution prohibits unfair discrimination on the basis of gender, but various challenges still persist. The policy establishes a clear vision and framework for gender mainstreaming across laws, policies, procedures and practices and advocates for equal rights and opportunities for women and men in all spheres and structures of government, as well as in the workplace, the community and the family. Government institutions and bodies are required to implement gender mainstreaming as part of their mandates through their Gender Focal Points.

Despite the legal framework, various gender imbalances are noted. Many racial and ethnic groups have maintained traditional gender roles, such that women usually have less power than men. Gender disparities also continue against women in terms of access to formal employment and productive resources, such as arable land, credit and technology. While South Africa has achieved near universal access to primary education, female access is still a concern. Women typically also face the consequences of gender norms and the unequal division of labour, predominantly due to their role as unpaid caregivers within the family and community. Women constitute 42.9% of the workforce compared to 57.1% of men and they are also underrepresented in decision-making. These factors illuminate some of the causes exacerbating gender gaps and the plight of women in the economy¹.

Women remain underrepresented in technical professions within the energy sector and industries reliant on green hydrogen and its derivatives. Promoting women in decision-making and specialist roles is essential to creating an inclusive green economy.

Core Problem

South African actors lack the capacity, coordination, and tools to establish a dynamic CRM and green hydrogen ecosystem that supports viable projects and advances a just energy transition.

Stakeholder Roles and Engagement

The proposed action will involve key stakeholders across government, industry, academia, civil society, and finance to address these challenges:

- Government Departments: Key players include the Department of Energy and Electricity, Department of Minerals and Petroleum, Department of Trade, Industry and Competition, including the gender focal point of these institutions and the Department of Women, Youth and People with Disabilities and the independent Commission for Gender Equality. These entities will drive policy alignment, infrastructure development, and public-private collaboration.
- The Presidency: The Presidency will coordinate public sector efforts, streamline program delivery, and facilitate private sector cooperation and financing.
- Industry, Universities, and Research Institutions: Stakeholders such as the Council for Geosciences, CSIR, MINTEK, SANEDI, mining companies, and battery manufacturers will support advancements along strategic value chains, boost economic growth, and foster innovation.

¹ [Gender-Analysis-Energy-Sector-In-South-Africa-Validated-Report-November-2023.pdf](#)