NATIONAL

NEWS ANALYSIS: Energy transition holds risk and opportunity

The move away from fossil fuels will have a big effect on SA

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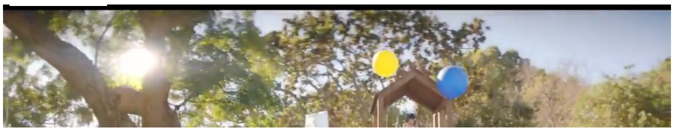
Picture: SOWETAN

The SA economy may have been built on gold mining but it has been fuelled by coal-fired power for almost 100 years. As a result, the coal supply value chain is vast, employing about 120,000 workers largely concentrated in coal mining.

Large as the domestic coal market may still be, the global transition from fossil fuels to renewable energy is inevitable, and there is a question mark over whether the changeover in SA will be just.

Though a "just transition" is a phrase regularly bandied about, there has so far been a dearth of action.

It stems perhaps from an even larger dearth of information. But now research institutions are stepping into the breach to provide insights that might inform strategies and shape policy.



Muhammed Patel, an economist at the Trade and Industrial Policy (Tips) who presented research findings at a recent webinar, says coal workers have notable financial capital.

With a median wage in the coal sector higher than the rest of the formal economy, the sector also boasts a higher prevalence of retirement and Unemployment Fund Insurance (UIF) contributions when compared to the rest of the formal economy.

That might have something to do with a high degree of unionisation in coal, particularly at the mining level, which has helped workers to secure increased earnings despite that they tend to be low or semi-skilled.

The low skills in the coal sector, as compared with the rest of the formal economy, could prove a disadvantage for workers caught up in the energy transition.

The Sam Tambani Research Institute (Satri), the research arm of the National Union of Mineworkers (NUM) says that the majority of the union's members in the coal sector are low skilled.

Satri senior researcher Pulane Mafoea Nkalai presented on the institute's research into economic opportunities for workers affected by the transition. The research delved into both renewable energy and nuclear, despite the union's previous stance opposing nuclear, a contentious technology in SA, though it produces no carbon.

"The perception is that when coal miners are displaced they will be automatically accepted into these jobs [alternative energy], but we find no evidence of that," she says.

Satri's research found that, because both nuclear and renewable energy sectors required skilled workers, they offer limited potential to transfer skills.

"There is a huge gap between what the industry requires and what the labour market offers in terms of skills," says Nkalai noting that a post-matric qualification is an entry level requirement for both nuclear and renewable.

Some opportunities for skills transfer exist, though more in renewables than in nuclear, she says.

Michelle Cruywagen, from the German Development Agency (GIZ) in SA, says 16% of coal workers have a degree while most have matric, guaranteed through the recruitment process that coal companies follow.

"More than that they also have matric with maths and science as far as possible," she says.

"This would appear to mean that we have workers that are trainable, especially with regards to artisanal careers."

Upskilling and retraining of coal workers will be important, but Satri worries it will not solve a larger issue of capacity.

Nkalai says both industries offer limited job opportunities, though there appears better potential for job creation in nuclear as compared with renewables. This finding was partially informed by Satri's observations at site visits to nuclear and renewable energy projects. Both sectors created the most jobs during the construction phase which by its nature is temporary employment, she says.

Satri did, however, find evidence that a renewable energy industry could create many more jobs if related manufacturing was established in SA.

It is however important that these, or other new opportunities, are created in existing coal areas to mitigate the potentially devastating impacts of a transition, Patel says.

“There is an urgent need for social protection and a dedicated structure to drive interventions.”

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