Development of a reskilling framework in support of a just energy transition

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Two drivers require a global energy transition: **Natural resources are finite** and **CO₂ emissions need to be capped**. Needs to be considered in our local context and the National Development Plan.

**Resources are finite**

<table>
<thead>
<tr>
<th>Resource</th>
<th>Life Span</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>140 to 300 yrs</td>
</tr>
<tr>
<td>Gas</td>
<td>60-100 yrs</td>
</tr>
<tr>
<td>Oil</td>
<td>40 – 60 yrs</td>
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</table>

**Price pressure**

Resources are finite, CO₂ emissions need to be reduced

**CO₂ emissions need to be reduced**

**Regulatory/policy pressure**

**NDP Vision 2030**

- Reliable and efficient energy service at competitive rates, while supporting economic growth through job creation
- Social Equity through expanded access to energy at affordable tariffs and through targeted, sustainable subsidies for needy households
- Environmental sustainability through efforts to reduce pollution and mitigate the effects of climate change

Sources: WEC; BCG; CSIR analysis, National Development Plan
Lifespan of our power stations

Power stations have a life cycle that is approximately 30 - 50 years

Source: Eskom, 2018, Just energy transition CSIR analysis,

South African existing coal power stations

Source: Eskom, 2018, Just energy transition CSIR analysis,
Substantial coal-fired capacity is planned to be decommissioned in the IRP2019

2020 -2023
5732 MW (Shutdown)

11 017 MW shutdown linked to IRP 2019

Sources: IRP 2019 CSIR analysis,
Aggregated direct jobs for wind and solar PV are estimated to be $266,000$ between 2020 and 2030.

Aggregated indirect jobs are forecasted to be $284,583$ for the wind segment.

Total jobs created $550,583$ (direct and indirect) jobs over a 10 year period.

Total jobs created including induced are estimated to be $846,714$.

14,400 MW of wind planned procurement (2020 – 2030)

6,814 MW of solar PV planned procurement (2020 – 2030)
Skills requirement in support of a just energy transition

Sources: CSIR analysis,
Key enabling factors for RE deployment in coal regions

- Policy certainty – IRP 2019 procurement plan
- Policy instruments that will encourage the use of coal power infrastructure to possibly transmit potential renewable power projects
- Support job creation through renewable energy localisation
- Reskilling plan that has realistic deliverable and timelines
- Repurposing of the current infrastructure, should be considered for diversification of coal regional economies to other potential sectors.

Sources: CSIR analysis,