

MANAGING CLIMATE RISK

Our policies

Power generation is a core part of our business. From the pit to the plant, every part of the gold mining process requires a steady and secure supply of energy, and Randgold also works to electrify the remote parts of developing countries in which we operate. With the enforcement of the Paris Agreement in 2016, we are also determined to reduce our exposure to climate risk in line with a pathway that keeps global warming below two degrees celsius.

Our strategy to reduce our climate risk is to both improve energy efficiency and increase our use of clean energy sources such as hydropower. Both of these elements deliver significant cost savings to our business and host communities. We also aim to be fully transparent about our progress, reporting to international bodies such as CDP (formerly Carbon Disclosure Project) as well as providing data in this report.

Our energy policy strikes the balance between meeting current operational needs (approximately 80% of the energy we use is self-generated) and working to reduce energy and emissions in line with a two-degree pathway. Each mine has its own tailored energy plan underpinned by three strategic goals:

- To ensure a stable, reliable secure and cost-effective supply of energy for all operations.
- To continuously improve energy efficiency and reduce emissions intensity.
- To reduce our carbon footprint by developing and using clean energy where it is economically feasible to do so.

It is also important to note that our energy policy is guided by the specific challenges and opportunities present in each country of operation. For example in Côte d'Ivoire almost all power for Tongon is bought from the Ivorian national grid, which is largely powered by hydropower and natural gas, thus putting a focus on improving energy infrastructure. In the northeast part of the DRC where Kibali is located, there is no access to the national grid and our focus is on hydropower, while in Mali a dry climate and lack of energy infrastructure means our focus is on self-generation and improved energy efficiency.

Where clean energy sources are not available our power needs are met by thermal generators burning diesel or heavy fuel oil.

Our performance

In 2016, 36% of our power was drawn from clean energy sources, up from 33% in 2015. This was due in part to the improved stability of the Ivorian national grid, which now meets 95% of Tongon's energy needs (up from 90% in 2015), and the continued increase in hydropower at Kibali with the Nzoro II hydrostation now providing 61% of Kibali's energy needs.

These power sources helped provide a positive reduction in our emission intensity this year from 48.53 units of carbon dioxide equivalent per kilotonne in 2015, to 42.17 units of carbon dioxide equivalent per kilotonne in 2016 – a 13% improvement. A reduction in the use of explosives during blasting was also a factor in this achievement.

The commissioning of the Ambarau hydrostation in the DRC was delayed in 2016 due to a construction issue, but is now due to come online in the first quarter of 2017. This will mean 80% of Kibali's power will be supplied by hydropower. A fourth hydrostation, Azambi, is due to be commissioned in 2018.

In line with increases in production, the Kibali underground becoming fully operational and the commissioning of two refrigeration plants at our Loulo mine, there was an increase in total power used during 2016 – from 881 000MWh in 2015 to 955 000MWh in 2016. Similarly, CO₂ emissions rose by approximately 3% this year. There was also a decrease in power efficiency from 47.62kWh for each tonne of ore milled in 2015 to 48.27kWh for each tonne of ore milled in 2016.

We continue to monitor the feasibility of other renewable energy sources such as solar power, especially in relation to our mines in Mali and our potential new project in Senegal as well as for use by our host communities. Across the group we have set locally appropriate trigger prices (approximately 13 US cents/kWh) for the delivery of major solar projects such as a solar farm at Massawa, and even though prices remain above this mark we are introducing small-scale solar projects such as those to power day shift offices across the group.

We are also working to introduce and promote the use of cleaner sources of energy within our host communities. For example, in the DRC we are working with a local woman and one of only two women trained as a solar engineer in the DRC, Fifi Ondoa Falane, on the feasibility of offering solar power for new houses built in the village of Kokiza. Fifi also installed solar panels for stalls at the pre-Christmas Kermes festival in Durba.

Energy efficiency initiatives in 2016 included the creation of energy saving committees on each mine to drive improvements such as the optimisation of underground equipment and systems, preventative maintenance on electrical equipment, and improving the efficiency of plant spinning reserves and processing plant power. The committees include representatives from every department on site, and also assume a role of peer educators.

FIGURE 19: TOTAL ELECTRICITY USED (000 MWh)

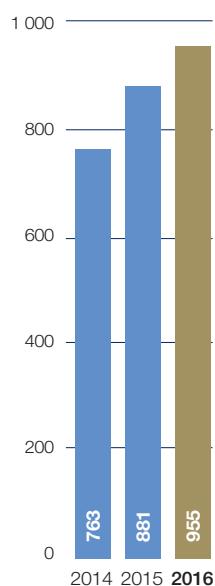
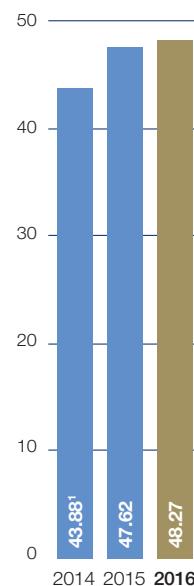
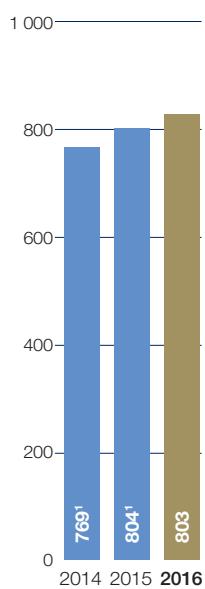
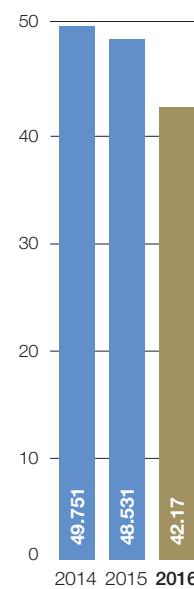


FIGURE 20: ENERGY EFFICIENCY (kWh/tonnes milled)

FIGURE 21: TOTAL CO₂ EMISSIONS (kt)FIGURE 22: EMISSION INTENSITY (CO₂-e/ktonnes)

¹ Restated from 2015 report, following a verification process by a third party.

FIGURE 23: GROUP LEVEL POWER MIX

