



Decarbonising our mines

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Forward Looking statements

Certain statements in this document constitute “forward looking statements” within the meaning of Section 27A of the US Securities Act of 1933 and Section 21E of the US Securities Exchange Act of 1934.

In particular, the forward looking statements in this document include among others those relating to the Damang Exploration Target Statement; the Far Southeast Exploration Target Statement; commodity prices; demand for gold and other metals and minerals; interest rate expectations; exploration and production costs; levels of expected production; Gold Fields’ growth pipeline; levels and expected benefits of current and planned capital expenditures; future reserve, resource and other mineralisation levels; and the extent of cost efficiencies and savings to be achieved. Such forward looking statements involve known and unknown risks, uncertainties and other important factors that could cause the actual results, performance or achievements of the company to be materially different from the future results, performance or achievements expressed or implied by such forward looking statements. Such risks, uncertainties and other important factors include among others: economic, business and political conditions in South Africa, Ghana, Australia, Peru and elsewhere; the ability to achieve anticipated efficiencies and other cost savings in connection with past and future acquisitions, exploration and development activities; decreases in the market price of gold and/or copper; hazards associated with underground and surface gold mining; labour disruptions; availability terms and deployment of capital or credit; changes in government regulations, particularly taxation and environmental regulations; and new legislation affecting mining and mineral rights; changes in exchange rates; currency devaluations; the availability and cost of raw and finished materials; the cost of energy and water; inflation and other macro-economic factors, industrial action, temporary stoppages of mines for safety and unplanned maintenance reasons; and the impact of the AIDS and other occupational health risks experienced by Gold Fields’ employees.

These forward looking statements speak only as of the date of this document. Gold Fields undertakes no obligation to update publicly or release any revisions to these forward looking statements to reflect events or circumstances after the date of this document or to reflect the occurrence of unanticipated events.



Agenda

- i. Gold Fields – who are we
- ii. Meeting Gold Fields' sustainable mining vision
- iii. Granny Smith hybrid renewable energy project
- iv. Agnew Gold hybrid renewable energy project
- v. Future opportunities





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Global Footprint

Gold Fields Group (2018)

- Top 10 of the world's gold miners
- Listings on the JSE and NYSE
- Total gold output >2Moz
- Energy spend US\$258m (17% of OPEX)
US\$115/ounce

Americas region

Mine: Cerro Corona (Peru)
Project: Salares Norte (Chile)
314koz
10% of GFL total energy

West Africa region

Mines: Tarkwa and Damang
JV project: Asanko Gold Mine
680koz
46% of GFL total energy

South Africa region

Mine: South Deep
157koz
18% of GFL total energy

Australia region

Mines: St Ives, Granny Smith and Agnew
JV Project: Gruyere
886koz
26% of GFL total energy



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Australasia

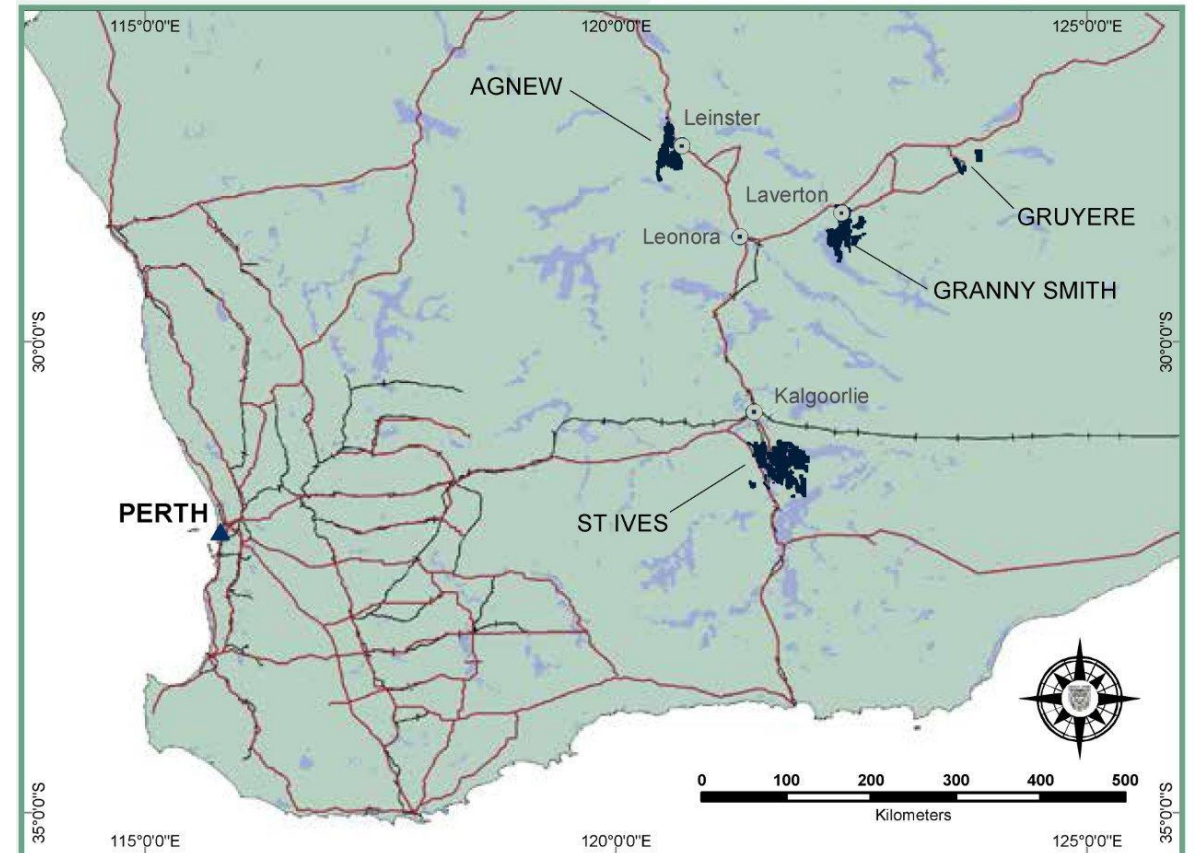
Regional overview

Mining Contribution

- 17 years in Western Australia
- One of the largest gold miners in Australia
- Underground (80%) and Open Pit (20%)
- 43% of Group gold production
- 42% of Group net cash-flow
- Approx. 2,200 employees and contractors
- A\$834m total exploration spend since 2002

2018 Energy Profile

- 95% of electricity use generated from gas
- 225km gas laterals to mines
- 5% electricity generated from diesel
- Diesel used primarily for our fleet of machines and vehicles
- Energy Spend to Opex: 15%



Energy security for miners

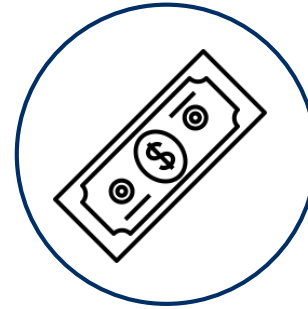
Energy challenges facing the global mining industry



Availability of energy



Reliability of energy supply



Affordability of energy



Addressing energy's climate impacts



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What Gold Fields has been doing

Implementing an integrated energy and carbon management strategy

ICMM
International Council
on Mining & Metals

ROBECOSAM
We are Sustainability Investing.

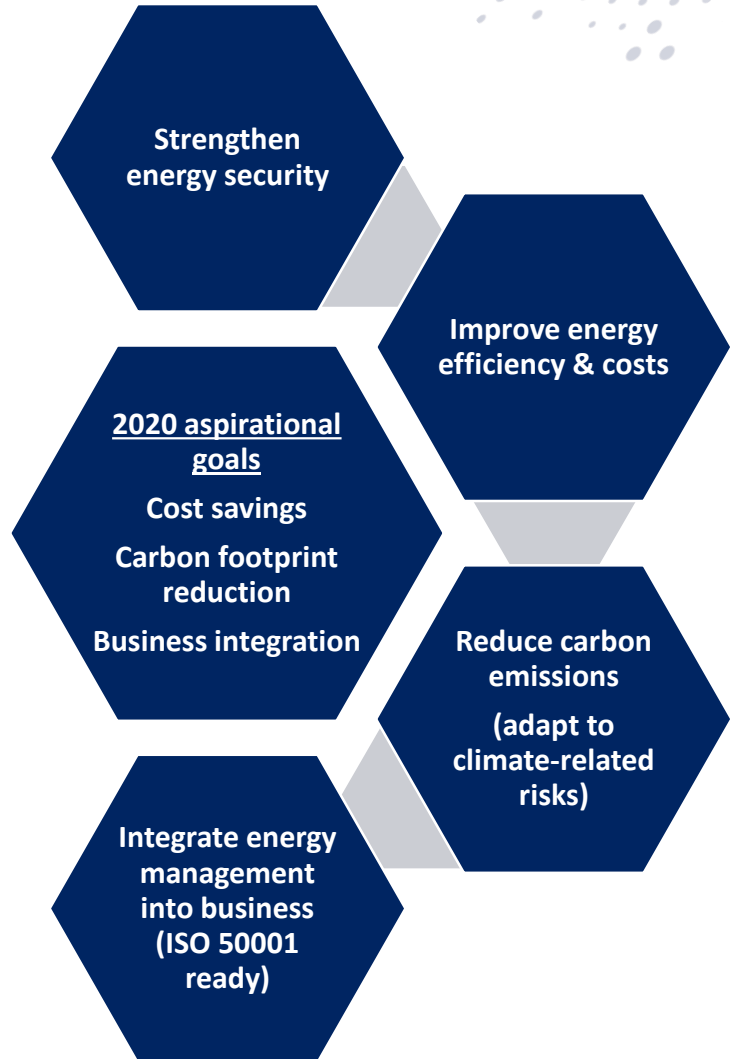
We've joined

**The Paris Pledge
for Action**

WE MUST CAN WILL

CDP
DRIVING SUSTAINABLE ECONOMIES

TCFD | TASK FORCE ON CLIMATE-RELATED
FINANCIAL DISCLOSURES

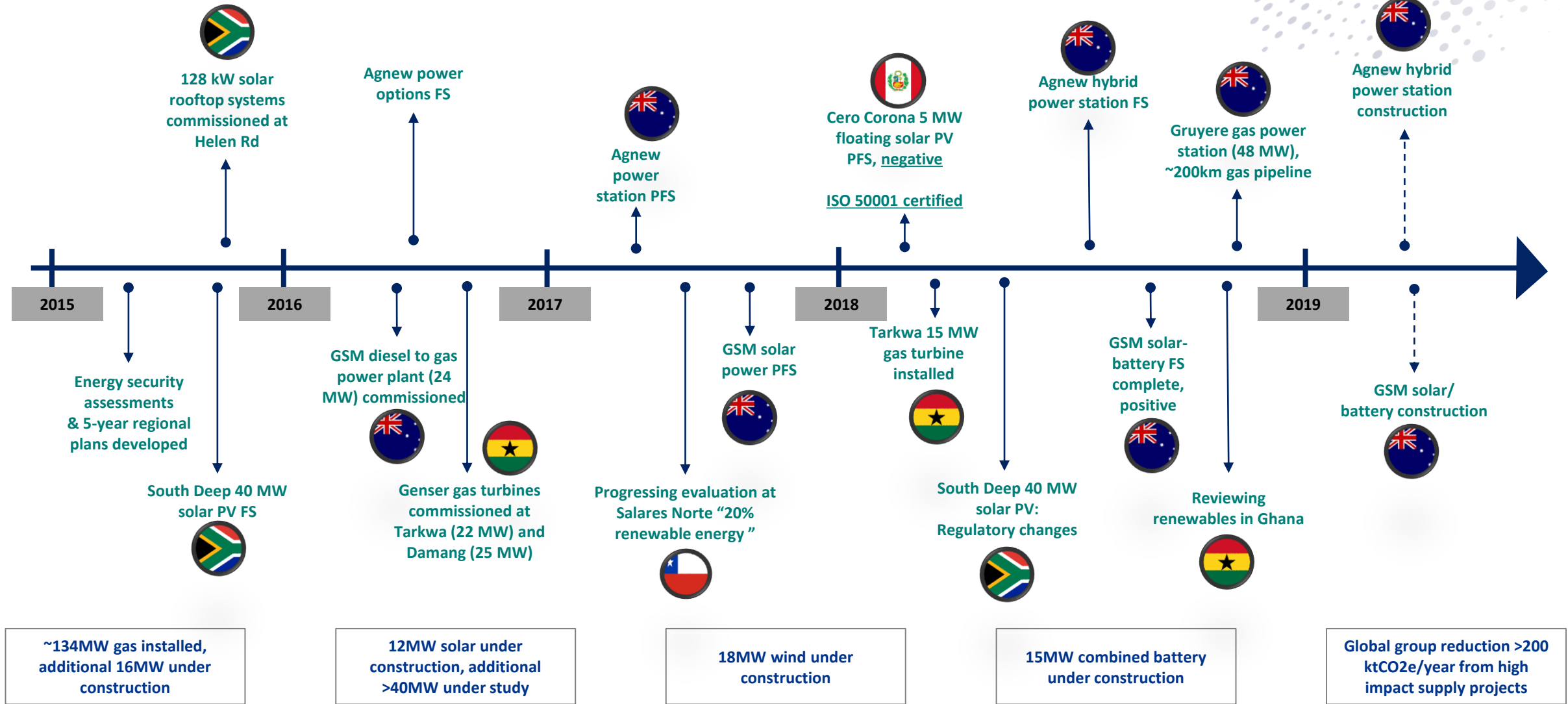




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Gold Fields' electrification journey

Our gradual transition towards low carbon and renewable energy



Granny Smith hybrid renewable energy project



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Granny Smith hybrid renewable energy project

Circumstances present opportunities

- 21MW gas-fuelled power station commissioned in 2016 from diesel generation, expanded to 24.2MW in 2018
- Increased demand from mining operations – ventilation and paste installations due to mining at depth
- Opportunity to avoid increased commitments to gas supply by meeting increased demand with renewables
- Single supplier for power (IPP-Aggreko) – ease of integration, reduced risk



Granny Smith hybrid renewable energy project

Solar battery hybrid under construction

- Heads of Agreement announced at Energy & Mines 2018, contract signed December 2018
- Technically optimal solution: 8MW solar and Aggreko in-house modular 2MW/1MWh lithium-ion battery unit
- Clearing and construction commenced in May 2019 for a 20,000 solar panel farm
- Commissioning expected by late 2019
- Annual emissions savings of ~9,500 t CO₂-e
- Reduced fuel consumption of 10-13%
- Funded by Aggreko – 14 year supply deal



Agnew hybrid renewable energy project



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Agnew hybrid renewable energy project

Circumstances present opportunities

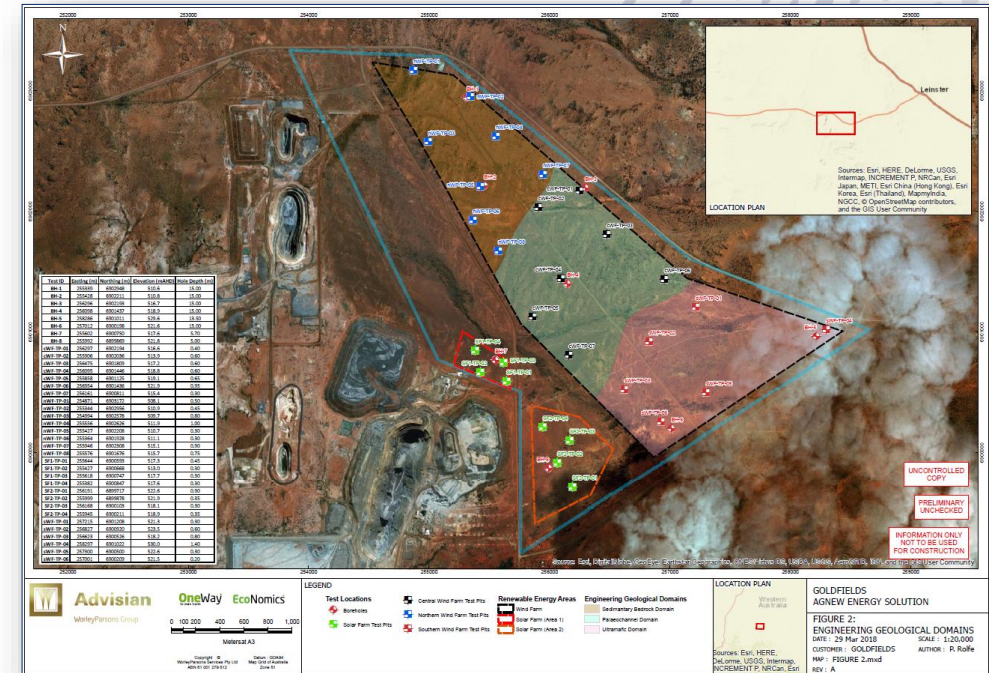
- Electricity transmission capacity restricted by existing infrastructure constraints
- Consuming diesel on site to meet additional electricity demand
- Challenges:
 - 5-year PPA coming to an end
 - Time constrained – 2 years to get operational
 - No renewable resource data for the site
 - Managing change to renewables – understanding the risks
- Strong business signals to decarbonise energy supply



Agnew hybrid renewable energy project

Feasibility studies and project de-risking

- Energy modelling with consultants Advisian
- Early project de-risking:
 - SODAR to collect and understand wind resource
 - Geotechnical investigations for solar and wind farms
 - EOI process to shortlist consortiums with technical and financial capability
 - ‘Shared risk’ tender package
- Gas, hybrid solution offered the lowest cost solution over a range of assumptions



Agnew hybrid renewable energy project

Gas and solar under construction

- Optimised hybrid microgrid consisting of:
 - 18MW through 5 wind turbines
 - 4MW solar plant (10,000 panels)
 - 13MW/4MWhr battery unit
 - 16MW gas plant to underpin demand
 - 25km gas supply pipeline
- Construction schedule:
 - Gas pipeline: Completed May 2019
 - Gas, solar power plants: Start Sept 2018 / Completion August 2019
 - Wind turbines and battery plant: Start July 2019 / Completion May 2020
- Funding of A\$112m project:
 - Funded by EDL – 10-year supply deal
 - ARENA recoupable contribution: A\$13.5m



Benefits for Agnew:

- Up to 60% of Agnew's energy needs from renewable power
- Potential for 100% renewable energy during periods of high winds
- Annual emissions savings of ~40,700 t CO₂-e

This Project received funding from ARENA as part of ARENA's Advancing Renewables Program

Gold Fields' energy future

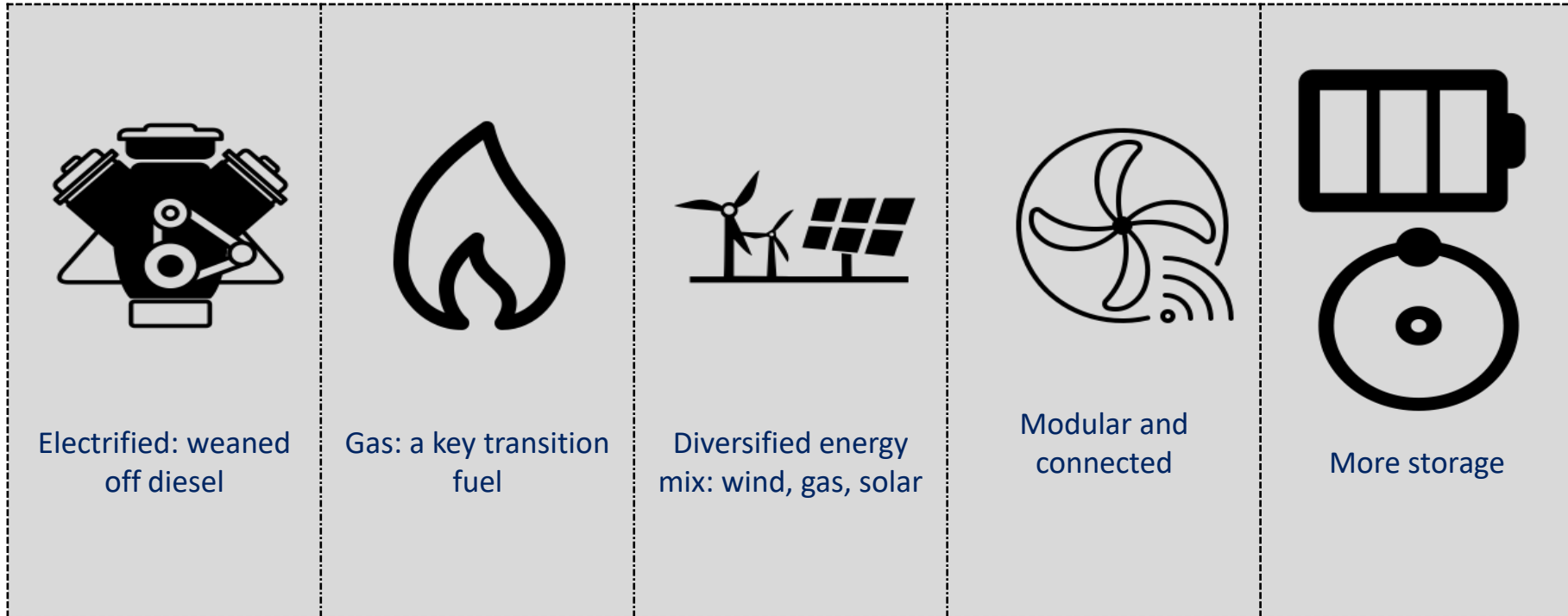


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How can we energise the mine of the future

Future opportunities in powering our mines



Coupled with digital technology changes, these opportunities will disrupt how mines are designed, operated and closed



Thank you

QUESTIONS AND ANSWERS



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