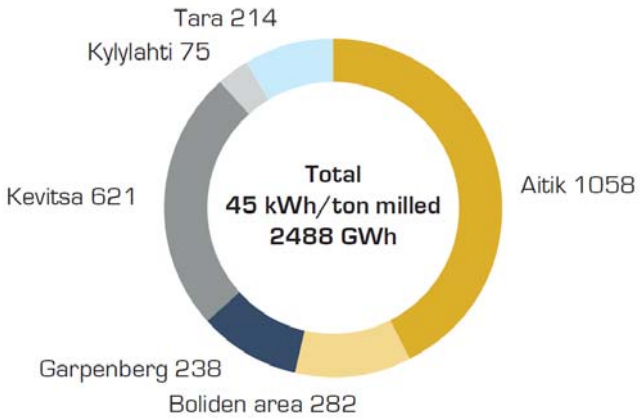
Boliden Mines's energy consumption



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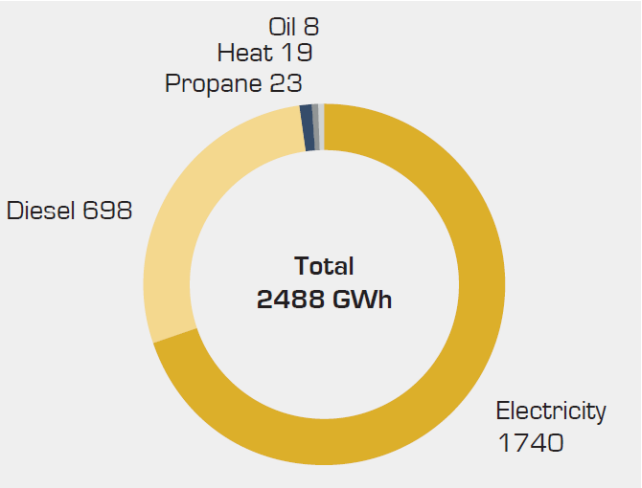
Boliden Mines's energy sources



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Boliden's largest CO_2-emitter

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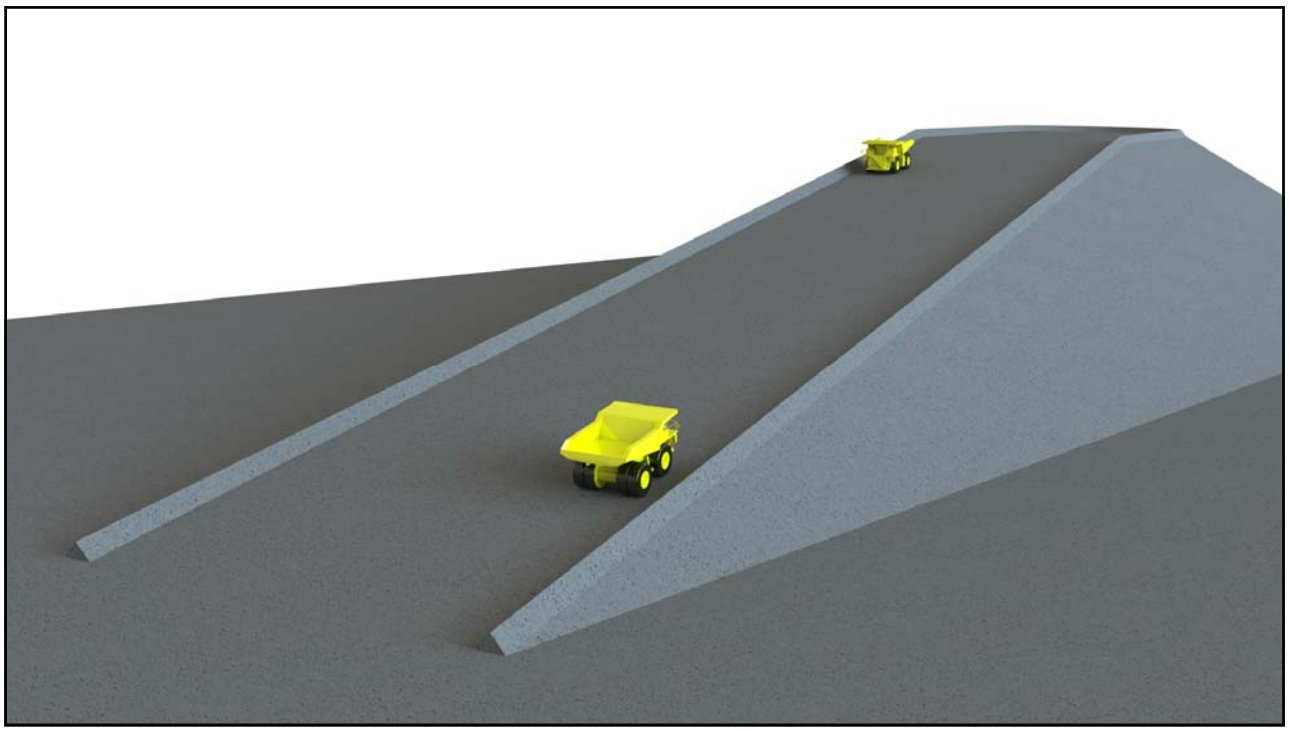

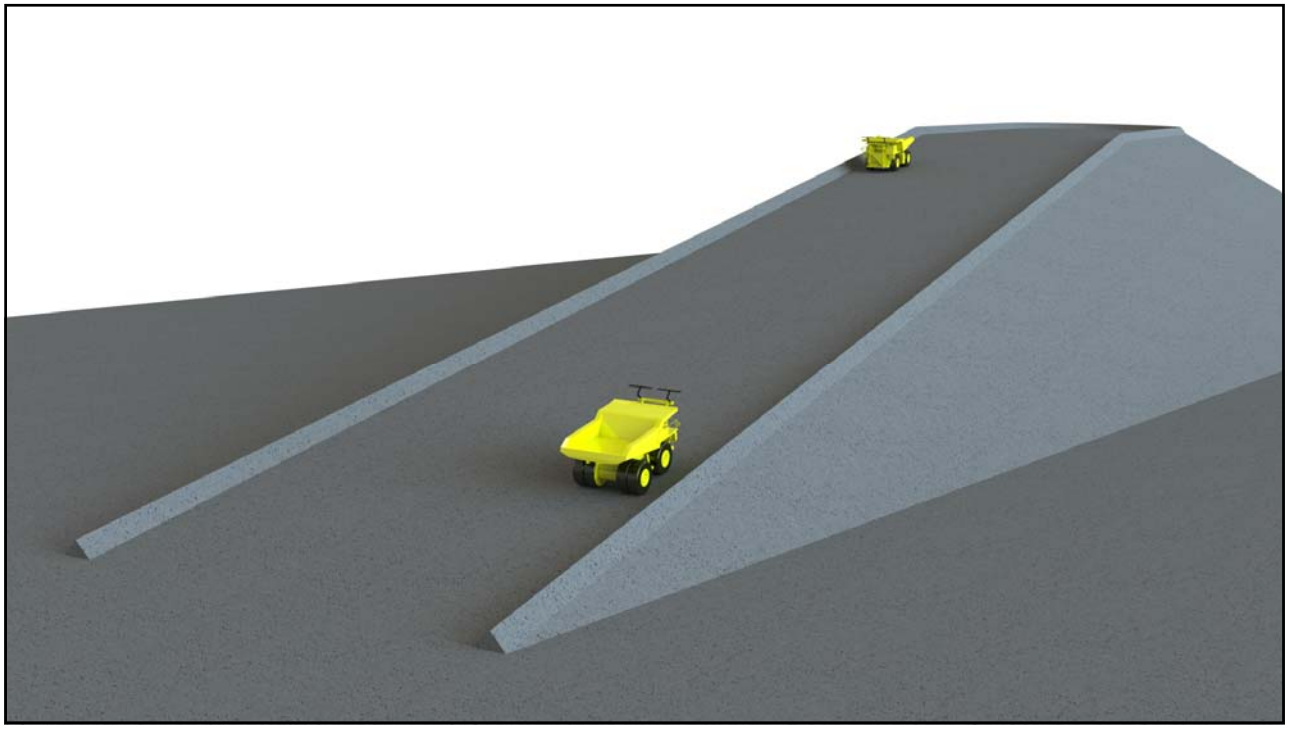

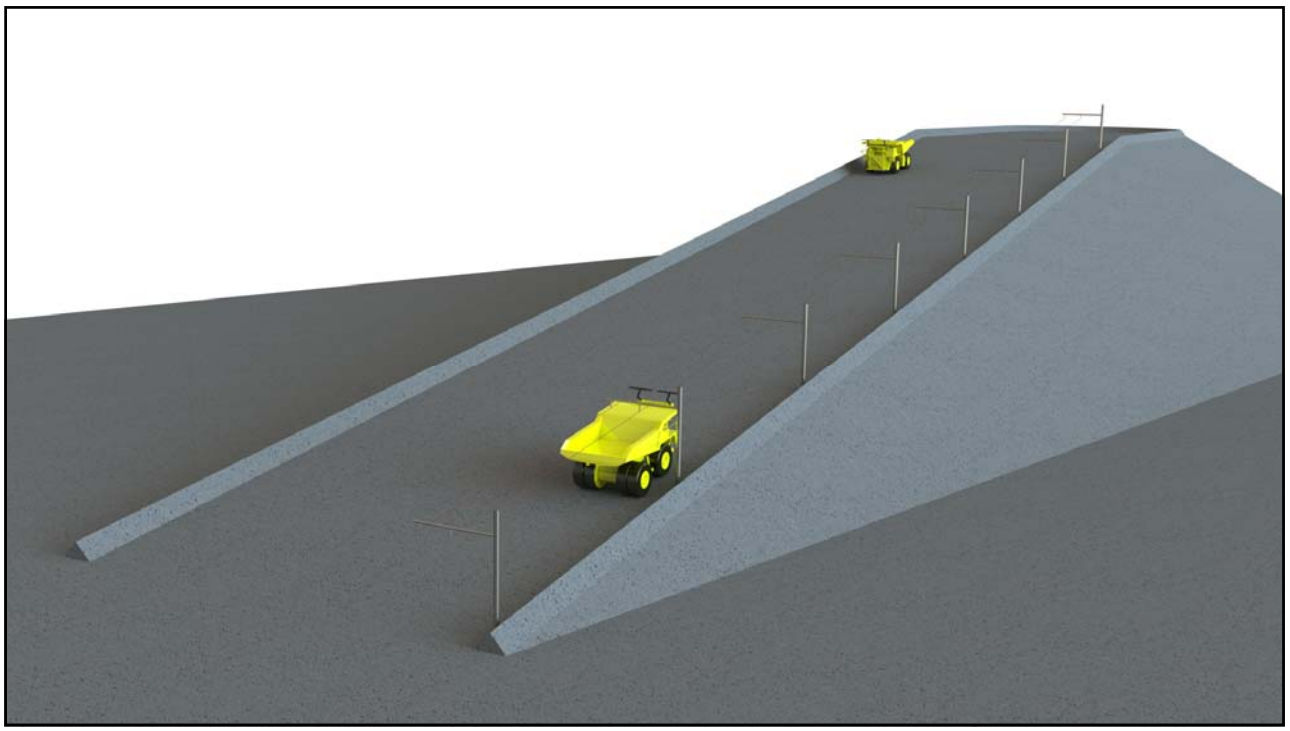

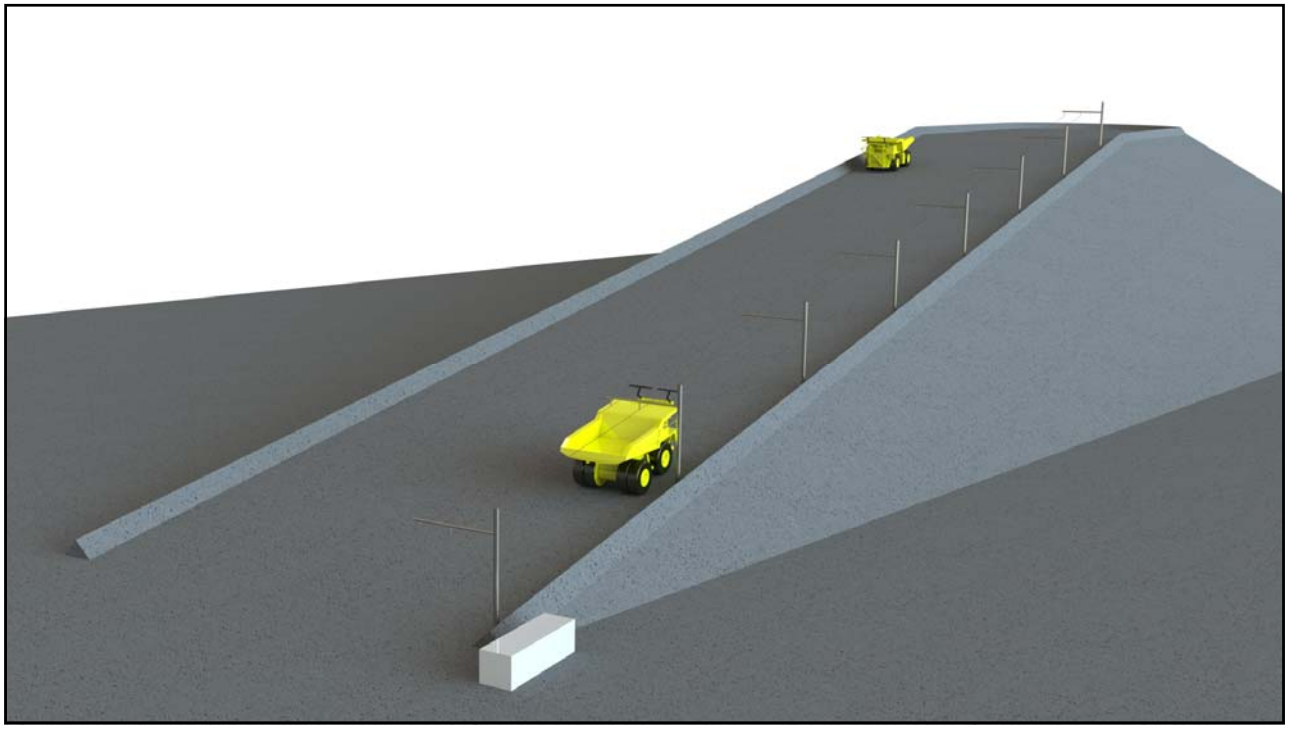

Why?

- Diesel savings (CO_2 reduction)
- Maintenance savings
- Higher speed
- Reduce number of trucks

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Trolley test lane Aitik 2018

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pon CAT

EITECH

ABB

Swedish Energy Agency

CHALMERS

Trolley test lane Aitik

- 700 meter long test lane
- 2700 VDC
- 10 MW rectifier station
- Four trucks will be equipped with pantographs
- One truck draws 4,5 MW in trolley operation, this will double the ramp travel speed
- Commissioning Q3 2018

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Test drive with power turned off

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Challenges?

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Arctic Conditions

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Ramp Maintenance

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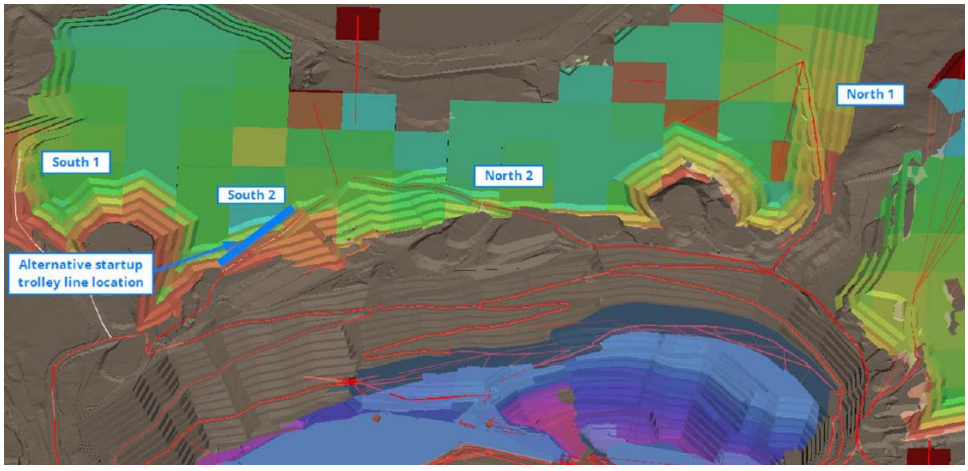
Mine planning



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Reliability

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What is the actual potential?

- Pilot installation will save ~830 m^3diesel/year (3%)
- Full potential is 20-50% diesel reduction
- Possibility of 100% if combined with battery

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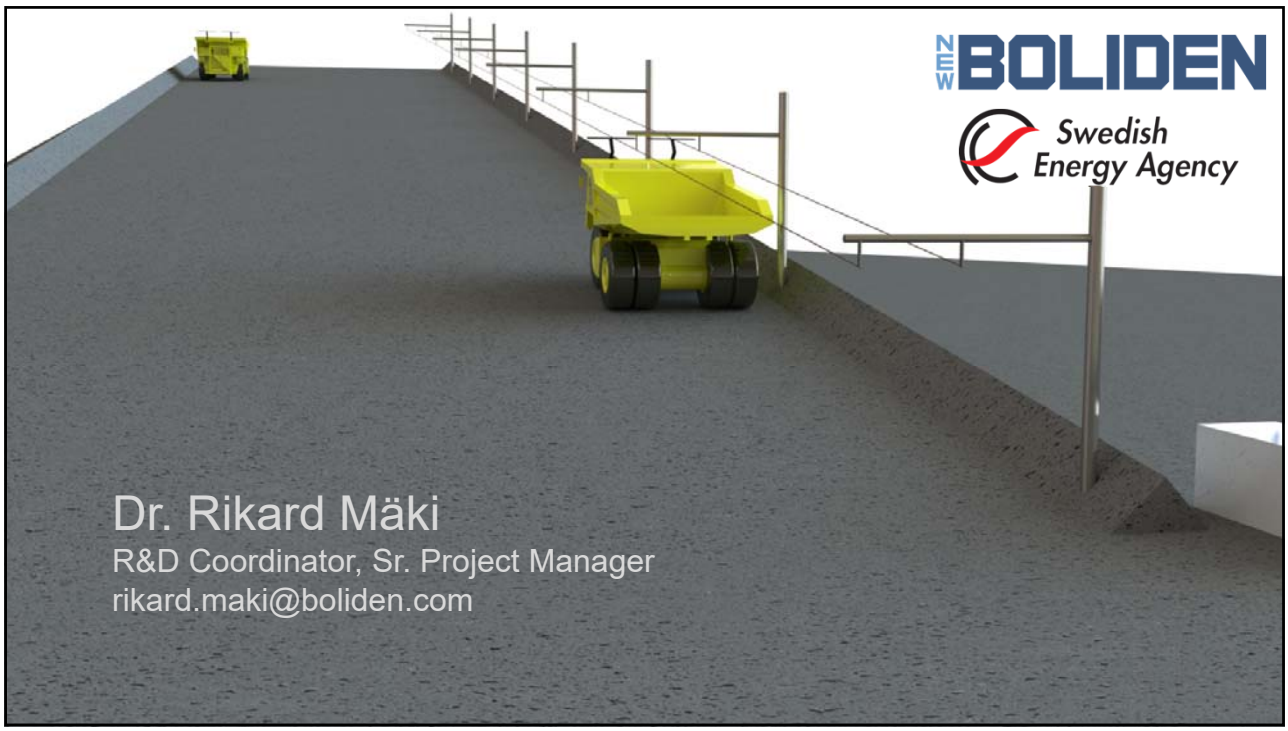

Dr. Rikard Mäki
R&D Coordinator, Sr. Project Manager
rikard.maki@boliden.com