



In-Pit-Crushing and Conveying (IPCC)

Operational costs, work safety and CO₂ emissions are challenges faced by most mines today. While there certainly isn't a "one-size-fits-all" solution to solve these issues, In-Pit Crushing and Conveying (IPCC) systems cut truck haulage to a minimum and build operational resilience.

Although the traditional truck haulage is widely accepted in the mining industry, it contributes up to 60% of the overall mining cost. IPCC systems substantially reduce the operational expenditures and hold other environmental and safety benefits too.

With > 100 years mining tradition, we provide RWE's vast experience in lignite and minerals mining, continuous mining systems and opencast design and planning.

Our independent mine engineers can determine the most appropriate bulk transport concept for each situation and support you during implementation. We can develop equipment specifications that match the demands of your mining project, assist in design specifications and supervise the fabrication, assembly and commissioning of your equipment. In addition we assist with procurement process by drawing up and publishing tender documents, evaluating bids, and assisting during contract negotiations.

Whether it's the high Andes, tropical India, or arctic Canada, we have been there. And since the bottom line counts, we balance investments, debt service and operating costs in a least-cost optimisation to come up with the best and most cost-effective solution.



Your Benefits



- Save operational expenditures and fuel in the long term
- Reduce greenhouse gas and dust emissions (up to 40%)
- Reduce noise emissions (up to 35%)
- Reduced spare part requirements
- Reduced bad weather downtimes
- Reduce manpower (40 - 60%)
- Easily move large and steady tonnages of material
- Improve safety with fewer moving vehicles



Our Scope

Our competence in IPCC

- Continuous mining systems (e.g. fixed or semi-fixed, semi-mobile, fully mobile, relocatable/movable systems)
- Feasibility studies
- Equipment tendering support
- Preparation and review of tender/specification documents
- Technical evaluation and equipment selection
- Operational readiness planning
- IPCC maintenance service planning
- On-site support (trainings, workshops, mentoring, technical advice)

Reasons for applying IPCC

In-pit crushing and conveying systems are increasingly cost effective in the following circumstances:

- High capacity
- Deeper pits
- Long mine life
- Longer haulage distance
- High fuel cost
- High labour cost
- New environmental regulations
- Remote operation



RWE – History of Mining

Mechanised lignite mining began in the 1890s, the first bucket-wheel excavator was commissioned in 1933 and, by 1940, output was over 60Mt/y from 23 surface mines. The 15 operating companies were merged into Rheinbraun in 1959. Today, RWE operates three large opencast mines – Hambach, Garzweiler, Inden – which between them produced 90.5 Mt of lignite in 2016, more than 50% of annual German lignite production.