



Australian Government
Australian Trade and Investment Commission



AUSTRALIAN CAPABILITY ACROSS THE COAL SUPPLY CHAIN



SAMPLE VISIT PROGRAM AUSTRALIA'S KEY COAL MINING REGIONS

Visiting major regional sites is an excellent way to gain a first-hand understanding of Australia's coal supply chain capabilities. Austrade can assist in creating a visit program tailored to specific areas of interest and connect interested companies with METS suppliers and partners.

Visit programs have been created to illustrate the breadth of expertise available in two key mining regions in Australia: the Hunter Valley in NSW and the Bowen Basin in Queensland. Please note, these sample visit programs are examples only and should not be interpreted as invitations to visit

any of the listed organisations. All site visits must be arranged in advance by mutual agreement.

Please contact your Austrade representative for assistance and to arrange visits and meetings with these organisations.

HUNTER VALLEY, NSW

SAMPLE VISIT PROGRAM

Day & Location	Focus	Website
DAY 1 Newcastle	<p>Port of Newcastle</p> <p>Port tour by boat</p> <p>The Port of Newcastle is the largest port on the east coast of Australia and a leading global coal export port.</p>	portofnewcastle.com.au
	<p>Newcastle Coal Infrastructure Group (NCIG)</p> <p>Port facility automation</p> <p>NCIG operates a coal export terminal within the Port of Newcastle, providing 66MTpa of export capacity. It is an advanced and innovative plant with highly automated systems and processes.</p>	ncig.com.au
	<p>The Hunter Valley Coal Chain Coordinator (HVCCC)</p> <p>Automation and control – coal export operation</p> <p>HVCCC is an automated control centre managing all pit-to-port coal export logistics in the Hunter region. It is a unique model founded by 35 mines in the region.</p>	hvccc.com.au
DAY 2 Newcastle	<p>Newcastle University – Newcastle Institute for Energy and Resources (NIER)</p> <p>Research and development</p> <p>NIER brings together leading researchers working in energy and resources in an integrated facility offering opportunities for advanced research through access to large-scale test-bed and pilot plant operations.</p>	newcastle.edu.au/nier
	<p>TUNRA Bulk Solids</p> <p>Research and consulting services in bulk solids handling</p> <p>TUNRA Bulk Solids is respected nationally and internationally for its professional industry consulting services and cutting-edge research and technological developments. Its research areas include storage, flow, processing and transportation of bulk solids.</p>	bulksolids.com.au
	<p>MRA</p> <p>Electrical and control systems engineering</p> <p>MRA is a leading provider of electrical and control systems engineering to a diverse portfolio of materials-handling industry sectors. Its services range from design to commissioning; optimisation and asset maintenance of infrastructure over entire lifecycles; and include stockpile management, ship loader automation, train load-out automation and dump station automation systems.</p>	mra.com.au

Day & Location	Focus	Website
DAY 2 Newcastle	<p>4Tel</p> <p>Rail network control systems</p> <p>4Tel is a leader in train control systems, large radio and satellite systems, SCADA networks, next-generation IP networking and software for real-time command and control networks.</p>	4tel.com.au
	<p>Advitech Group</p> <p>Engineering, environmental, data reporting and analysis, communications, simulation modelling and manufacturing</p> <p>The Advitech group of companies brings together expertise across science, technology, engineering, analytics and manufacturing.</p>	advitechgroup.com.au
	<p>HunterNet</p> <p>METS network</p> <p>HunterNet is a network of manufacturing, engineering and METS companies that is nationally recognised as the most successful industry 'cluster' of its type.</p>	hunternet.com.au
	<p>Novecom</p> <p>Environmental monitoring and data management systems</p> <p>Novecom specialises in transforming complex problems and data into straightforward, relevant and real-time business solutions.</p>	novecom.com.au
DAY 3 Singleton	<p>Singleton</p> <p>Mine tour and site visit</p> <p>Singleton is a major coal mining location in the Hunter Valley, NSW mining region.</p>	
DAY 4 Muswellbrook	<p>Muswellbrook</p> <p>Mine tour and site visit</p> <p>Muswellbrook is a major coal mining location in the Hunter Valley, NSW mining region.</p>	
	<p>Hedweld – advanced manufacturing facilities</p> <p>Equipment safety</p> <p>Hedweld has been designing and manufacturing technologically advanced products for the global mining sector for over 30 years. Its products are used to increase maintenance productivity and minimise workplace injuries.</p>	hedweld.com.au
DAY 5 Newcastle	<p>Coal Services – Newcastle Mines Rescue Station</p> <p>Underground incident response and mine safety training</p> <p>Coal Services' Mines Rescue service provides underground incident response and mine safety training. Coal Services has developed the world's most advanced mine safety training simulator. The virtual reality system includes an underground operating whole of mine with over 50km of roadway, covering all regular mining methods, and an open-cut operating whole of mine based on real terrain data.</p>	minerescueservices.com

BOWEN BASIN, QUEENSLAND

SAMPLE VISIT PROGRAM

Day & Location	Focus	Website
DAY 1 Mackay	<p>Dalrymple Bay Coal Terminal</p> <p>Dalrymple Bay Coal Terminal exports thermal and metallurgical coal to ports around the world. The terminal operates around the clock and has a nameplate capacity of 85Mtpa.</p>	dbct.com.au/home
	<p>Central Queensland University (CQU) Mackay Campus</p> <p>CQU has a dedicated Robotics and Automation Faculty delivering world-class training in the latest mining automation and on the future of robotics.</p>	ncqu.edu.au/about-us/structure/schools/et
	<p>Taurus Mining Solutions</p> <p>Taurus designs, engineers and builds excavator buckets and dump-truck tray bodies that deliver improved productivity and reduced operational costs for mine operators.</p>	taurusminingsolutions.com
DAY 2 Isaac Plains, near Moranbah	<p>Isaac Plains Mine site visit</p> <p>Owned by Stanmore Coal and operated by Goldings Contractors, this small coal mine demonstrates the efficiencies of Australian coal mine operations.</p>	stanmorecoal.com.au isaacplains.com.au
DAY 3 Brisbane	<p>University of Queensland, School of Mechanical and Mining Engineering</p> <p>Current research areas include:</p> <ul style="list-style-type: none"> › mine automation › in-pit crushing and conveying › data analytics and predictive maintenance models. 	mechmining.uq.edu.au
	<p>Sustainable Minerals Institute</p> <p>Sustainable Minerals Institute and The Julius Kruttschnitt Mineral Research Centre (JKMRC) have mining projects underway related to mineral processing, risk management and the socio-environmental sustainability of mining operations:</p> <ul style="list-style-type: none"> › integration of the value chain › not separating mining and processing › open-pit coal – cost efficiencies and coal losses › operational excellence area. 	smi.uq.edu.au

Day & Location	Focus	Website
DAY 4 Redbank	<p>Safety in Mines Testing and Research Station (Simtars)</p> <p>Mining safety and health research</p> <p>Simtars is a leading centre for mining safety and health research, as well as scientific, engineering and training services. Its mine safety induction facilities include an immersive virtual reality training facility.</p>	simtars.com.au
	<p>CSIRO Energy</p> <p>Research and development</p> <p>CSIRO is leading and coordinating collaboration for the open-pit coal mining industry globally. Key contributions and research include:</p> <ul style="list-style-type: none"> › Sirovision – a commercial photogrammetry-based 3D imaging system to identify sub-surface structural features on highwalls to aid planning and hazard management sirovision.dataminesoftware.com (commercialised) › microseismic monitoring information – used in underground mining, the solution is currently being trialled in open-pit mines and shows strong potential for application. Precursor for instability and planning technology › automatic rail wagon remnant coal detection – currently researching and not commercialised yet › groundwater monitoring – numerical modelling to effectively calculate the effect on groundwater conditions. 	csiro.au
DAY 5 Brisbane	<p>METS Ignited</p> <p>Presentation and interactive discussion</p> <p>VCI Future Mining Archetypes and Mining in 2036 – Integrating mining futures to transform operational effectiveness and efficiency</p> <p>Presentation looking at:</p> <ul style="list-style-type: none"> › global trends › over-the-horizon view of how operational effectiveness and efficiency will be transformed over the next 10–20 years › futures of mining as defined by a global survey of mining executives. 	metsignited.org

Read Austrade's full report: Australian Capability Across the Coal Supply Chain austrade.gov.au/mets