<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Topic</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>10 mins</td>
<td>Introduction and safety moment</td>
<td>Robert McRuvie, Senior Contracts Engineer, Arrow Energy</td>
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<tr>
<td>15 mins</td>
<td>Arrow Bowen Gas Project</td>
<td>David Wolf, Project Manager Gathering Systems, Arrow Energy</td>
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<tr>
<td>15 mins</td>
<td>Arrow Bowen Pipeline Project</td>
<td>John Lott, Construction Manager Arrow Bowen Pipeline, Arrow Energy</td>
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<tr>
<td>15 mins</td>
<td>Clough AMEC Joint Venture EPCM</td>
<td>Craig Banks, Local Content Manager, Clough AMEC Joint Venture (CAJV)</td>
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<tr>
<td>15 mins</td>
<td>ICN Gateway Registration</td>
<td>Michael Swart, ICN Consultant, Industry Capability Network</td>
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<tr>
<td>15 mins</td>
<td>Introduction to accessing supply chain opportunities (ASCO)</td>
<td>Richard Mills, Supply Chain Optimisation, Department of State Development, Infrastructure and Planning</td>
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<tr>
<td>5 mins</td>
<td>Arrow Energy Brighter Futures Program</td>
<td>Michelle Jones, Community Officer, Arrow Energy</td>
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<tr>
<td>15 mins</td>
<td>Q&amp;A</td>
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<tr>
<td>30 mins</td>
<td>Networking and Close</td>
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Whanu Binal empowers Indigenous communities to develop sustainable business and employment pathways
Annual road toll

- 2013 – 1186 deaths nationally (>3 people per day)
  - 271 in Queensland (2 highest; NSW #1)
- 2014 - 1156 deaths nationally (>3 people per day)
  - 223 in Queensland (3 highest; NSW #1, VIC #2)

The Fatal Five

- Speeding
- Drink and drug driving
- Failure to wear a seatbelt
- Fatigue
- Distracted driving (e.g. driving “IN-TEXT-ICATED”)
What can you do to help reduce these numbers and save lives?

- Follow your journey management plan
- Rest every 2 hours for at least 15 minutes
- Install IVMS to help you manage your driving
- Turn your phone off (avoid distractions)
- Maintain a safe stopping distance
- Eat a healthy diet (green apple better than coffee)
- Aim for a good nights sleep before any travel (at least 7.5 hours)
- Provide an update on the Bowen development
  - About Arrow
  - Coal seam gas overview
  - Bowen Gas Project (BGP)
  - Arrow Bowen Pipeline (ABP)

- Current stage
  - Define phase: front end engineering and design
  - Local content: supply opportunities and how to register

- Clough AMEC Joint Venture

- ICN Gateway

- Accessing supply chain opportunities

- Arrow Energy Brighter Futures program
• Stand alone company owned 50/50 by Shell and PetroChina
  • ~41,000 km² tenure over two major production basins
  • ~350 exploration/pilot/appraisal wells
  • ~890 production wells

• Supplies >20% of the Queensland domestic gas market

• Domestic gas operations
  • five gas production areas across two basins
  • Tipton; Daandine; Kogan; Stratheden
  • Moranbah Gas Project (MGP)

• Power supply
  • Braemar 1, Braemar 2 (100%), Yabulu, Daandine, Moranbah, Swanbank
  • Enough power generated for 800,000 average-sized Queensland homes
Coal seam gas overview

- CSG is natural gas trapped in underground coal beds by water and pressure
- To extract CSG a 300-750m deep well is drilled
- Water is pumped from the coal seams to release gas
- Gas and water flow up the well to the surface separately
- Wells are constructed using steel casing which is cemented in place to ensure isolation of coal seams from groundwater aquifers
- At the surface, CSG is treated and compressed for transportation via a high-pressure pipeline
- Commercially produced in Queensland for more than 15 years
- Gas-fired power stations create less than half the greenhouse gas emissions of equivalent sized coal fired power station
Bowen Gas Project

Queensland Government approval
- BGP EIS approved by State Government
  8 September 2014

Federal Government approval
- BGP EIS approved by Federal Government
  28 October 2014

Next steps
- Environmental Authorities
- Define phase, including Front End Engineering and Design, and pre-award contract management
- Tender packages
- Conduct and Compensation Agreements for access to the construction area

Arrow Bowen Pipeline

Queensland Government approval
- ABP EIS approved by State Government
  March 2014

Federal Government approval
- ABP environmental approved (Federal Government) 8 October 2014

Next steps
- Environmental Authorities
- Planning stage: tending for Engineering services
- Exact pipeline route is still being finalised, with survey activities currently underway
• Concept studies complete, incorporating feedback received through EIS process
• Clough AMEC awarded front-end engineering design (FEED) contract
• Define (engineering) phase underway, expected to take around 12 months to complete
• Tendering for early works packages during FEED
• Tendering for construction after shareholder final investment decision
• Contracting opportunities during construction phase
• Development regions, starting from Moranbah and extending north to Glenden

• Information is currently being collected to further define (engineering) phase, including landholder discussions and geotechnical surveys

• Concept planning complete for phase one of the project (Moranbah to Glenden)
Phase one concept includes:

- 450-500 wells
- Low pressure water and gas gathering pipelines (from wellheads to field compression facilities)
- Four Field Compression Facilities (FCF)
  - to boost the gas pressure for transport to the Central Gas Processing Facility (CGPF)
- Medium pressure infield pipelines (to transport gas from FCF to CGPF)
- One CGPF
  - dries and compresses the gas to pipeline specification for transmission
  - water storage dams
  - offices for maintenance staff
  - water treatment facility
  - accommodation village
  - marshalling yard
Project proponent - Arrow Energy
compliance, approvals, audit

FEED/EPcM contractor - CAJV
design, engineering, procurement and
construction management

Implementation contractors
construction

Suppliers/vendors
supply, equipment design and fabrication,
materials supply
Arrow Bowen Pipeline project delivery model

Project proponent - Arrow Energy
compliance, approvals, audit, direct contractor management

ABP construction contractor

Suppliers/vendors
supply, equipment and fabrication, materials supply
Arrow Bowen Pipeline project delivery status

Step 1. Currently going through preparation of invitation to tender

Step 2

Implementation contractors construction

Suppliers/vendors supply, equipment design and fabrication, materials supply
Arrow Energy - pre construction activities and commitments

- Systems and procedures in place to make use of local content labour, services and materials for the work, including that of sub-subcontractors.
- Using local suppliers to support Arrow field activities (e.g. local companies supplying goods and services, accommodation).
- Ensuring the selection of our construction contractor provides opportunities for both local, Australian companies and communities to provide resources, and supply goods and services.

Accessing supply chain opportunities with the contractor - preparation

Local vendors and suppliers will have to consider the following in order to qualify with the main contractor for field works:

- Safety, Health and Environmental record
- Quality assurance record
- Skills and capabilities of the organisation and its human resources
- Equipment standards
• Construction contractor: local content - construction activities

Arrow will ensure the successful contractor focuses on local content by submitting and maintaining a list of suitably qualified and capable local content subcontractors and suppliers.

Examples include:

• Access road works preparations, maintenance
• Early site clearing for Temporary laydown yards
• Supply of consumables, materials, receipt and transport of materials
• Supply of vehicles, trucks, cranes and other local equipment
• Clean up and waste removal
• General labour (skilled / unskilled)
• Sub contractors, such as, security providores, catering, piping fabrication (offsite), Steel fabrication (offsite), site communications / IT, fencing erection
• City accommodations and available rural accommodations
• Local transport – buses, bus services, personnel transport (airport /camps)