6 WORKFORCE

The Queensland Curtis LNG (QCLNG) Project draft environmental impact statement (EIS) forecast significant employment opportunities, including more than 4,400 jobs at the peak of construction and more than 1,000 permanent positions when operational.

Detailed planning has identified a larger optimal workforce for construction than was earlier envisaged. The workforce forecast has also been expanded to account for key groups of subcontractors.

The duration of construction, workforce skills and proportions of manual and non-manual workers required remain consistent with the draft EIS.

6.1 CONSTRUCTION

6.1.1 LNG Facility Construction

For the LNG Facility, the start-up workforce in the second quarter of 2010 will comprise approximately 550 people, building to more than 1,500 workers by the second quarter 2011.

Assuming minimal constraints on local labour, the workforce for LNG Facility construction (including sub-contractors) will peak at more than 3,300 by mid 2012. Twenty percent of non-local manual workers would be off-site at any one time, so the total on site would be about 3,000.

Workforce numbers will decline from mid 2012, and construction is expected to be complete by mid 2015 (two trains).

Over the construction period of 50 months, the average number of jobs per month (manual and non-manual) is estimated at 1,560. Approximately 1,230 would be manual jobs, with an average of 330 non-manual jobs.

The Project estimates total local availability of 900 to 1,200 suitably skilled trade workers. In addition, 100 to 200 non-manual jobs are expected to be taken up by local people, depending on availability.

Local workers are expected to comprise about 42 per cent (up to 1,200, including 900 manual workers and approximately 300 non-manual) of the total workforce over the 50 months of construction. At peak, the increased number of non-local workers would see the local percentage drop to about 32 per cent.

This would include a peak of approximately 900 local manual workers, and a peak of more than 1,500 non-local manual workers on-site, plus approximately 400 non-manual workers.

With two LNG projects constructed concurrently, the QCLNG Project would attract fewer local workers, and the local labour percentage is estimated to

drop to 20 to 25 per cent. This would see approximately 1,800 manual and 400 non-manual workers from outside Gladstone employed in the Project.

The LNG workforce forecast and changes to predicted impacts, benefits and mitigations are discussed in detail in *Volume 8, Chapter 6*, including refinements to the Project's housing strategy for Gladstone-based workers.

6.1.2 Pipeline and Gas Field Component Construction

Pipeline workforce requirements have been refined on the basis of ongoing construction planning and further engineering studies.

Three work crews, or 'spreads', will be used to construct the Export Pipeline, with one spread focusing on the construction of The Narrows section (KP360-380) and the other two on section KP0 to KP360 (with KP0 near Miles).

Estimates represent the maximum workforce required during various phases of construction, including early works and the installation and commissioning of pipe and pipeline facilities. Figures include all site workers, site supervision, camp operations and management. The peak number of personnel required for Export Pipeline construction Spread 1 and Spread 2 is approximately 360 and 300 personnel respectively, and 220 personnel for Export Pipeline Spread 3 (The Narrows pipeline). This is a total peak of approximately 880, which is 380 greater than the number forecast for the draft EIS. Some workers would be off-site so the total number of workers in the field at any one time would be somewhat less than 700 workers. At least five camps are required for the Export Pipeline, including The Narrows crossing, as discussed in *Volume 8, Chapter 5*.

As also discussed in *Volume 8, Chapter 5*, the change in the magnitude of overall impacts is not considered significant, given the fairly low long-term impact of the Export Pipeline.

The Collection Header is likely to require three workforce spreads. The total peak workforce for the Export Header plus Collection Header is approximately 1,500. This increased number of jobs is a positive benefit in terms of employment opportunities, however it will result in an increased number of non-local workers in the Pipeline corridor area, as sufficient labour will not be available to meet Pipeline construction demands.

Detailed planning for the coal seam gas (CSG) field construction (which includes field development, the Collection Header, CSG facility construction, water management facilities and drilling) has identified a larger optimal workforce for construction in the Gas Field than was forecast in the draft EIS.

By January 2011, the Gas Field Component workforce is forecast to be more than 500. It will ramp up to a peak of more than 4,500 by December 2011 (including Collection Header construction personnel), then steadily decline to fewer than 3,000 in November 2012, 1,500 in April 2013, and about 750 by late 2013. This is discussed in *Volume 8, Chapter 4*. This is more than the 2,250 (plus drilling contractors) forecast in the draft EIS. Refined mitigations,

including accommodation provisions, are discussed in *Volume 8, Chapters 5* and *9*.

6.1.3 Total QCLNG Project Construction Workforce

As documented in the draft EIS, the QCLNG Project would bring significant economic benefits to regions within the Project area, and to Queensland, through direct employment, stimulation of local economies, royalties and taxes.

This updated assessment has detailed increases in the workforce planned for the Project, including the LNG Component, Gas Field and Pipeline construction. An average of more than 3,000 jobs will be provided by the Project over the total 50 month construction timeframe. The total on-site construction workforce for the LNG and Gas Field components will peak at almost 8,000 workers in late 2012. This is detailed in *Volume 8, Chapter 9*.

This is a significant increase on the 4,400 plus workers forecast in the draft EIS. This large workforce will contribute strongly to employment growth in Queensland, and the term of employment will provide surety of employment and income for people in the construction industry and other businesses.

6.2 OPERATIONS WORKFORCE

The LNG Component's operations workforce was forecast in the draft EIS at 162 employees, and this has remained fairly consistent, with an operations workforce of more than 160 employee (plus contractors) now forecast for the first two LNG trains. This will increase to approximately 200 employees (plus contractors) following commissioning of the third LNG train.

More detailed planning has provided an estimate of approximately 530 Gas Field operational workers, while the drilling and well construction contractors (400 contractor staff) are now considered in the continuing construction phase. The Pipeline operations workforce has also remained consistent at an estimated 10 to 20 maintenance staff.

The operational workforce's size, impacts, benefits and mitigations remain consistent with the draft EIS.

6.3 MITIGATION

As discussed in the draft EIS (*Volume 8, Chapters 4* and *6*), QGC aims to make maximum practicable use of local labour across all phases of development. The construction labour market in Queensland has a shortage of some skilled trades, and availability of local labour depends on the number of concurrent, competing projects. Mitigation measures to increase local skills capacity and to strengthen local suppliers' competitiveness are outlined in the

draft EIS (*Volume 8, Chapters 4*, *6* and *8*) and supplemented in *sEIS Volume 8, Chapter 6*. Skills and labour availability analysis, including an Indigenous skills audit, are complete in readiness for LNG Component construction from 2010, and in progress for the Pipeline and Gas Field components in readiness for construction from 2011.