

ARROW ENERGY SURAT GAS PROJECT SUPPLIER BRIEFING

19 OCTOBER 2020

Introduction

In April this year, Arrow Energy sanctioned the first phase of its Surat Gas Project (SGP) in southern Queensland. Construction will start shortly.

The first phase of the project includes drilling around 600 wells to bring gas to market over 27 years.

In place of an in-person supplier briefing session, members of the Arrow team presented information via live webinar (an online presentation, 19 October 4-5pm)) and answered questions.

Following is a summary of the questions received and answers given. While this is not a verbatim record, every effort has been made to preserve the integrity of answers.

The presentation is available on the Arrow website: www.arrowenergy.com.au

How to read these notes

Questions and comments from the audience are in bold type, with the responses from Arrow staff below. In some cases, responses have been summarised. In others, additional information is included to provide further context or explanation. This information is italicised following the answer.

Questions that were not answered during the session due to time constraints have also included in the second part of this document, as indicated.

If you have questions or comments about the project or these Q&As, please contact the project team during working hours on:

Freecall: 1800 038 856

email: info@arrowenergy.com.au

Acronyms

CSG – coal seam gas

EOI – Expression of Interest

EIS – environmental impact statement

IFL – intensively farmed land

HDPE – high-density polyethylene (pipe)

SGP – Arrow’s Surat Gas Project

IAA – immediately affected area

QGC – Shell-operated QGC joint venture

ROW – right-of-way

Key contacts

Arrow Energy	ICN Gateway	Supply Nation	CQUniversity
Arrow Community Engagement	Jatin Patel	Supply Nation	Whanu Binal Team – Desley Pidgeon
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Date:	19/10/2020
Time:	4.00-5.00pm (AEST)
Venue:	Live Webinar
Arrow Energy presenters:	Leisa Elder – Vice President, External Relations and Tenure Management, Arrow Energy Guy Young – General Manager Surat Opportunities Tyrone Wilkinson – Construction Manager Simon Gossmann – Groundwater Manager Jason King – General Manager Contracting Procurement & Logistics
Facilitator:	Brydie Hedges – Community Manager

1. Does Arrow have any requirements to ensure AS/NZ3000 Inspection & Testing (Section 8) is completed and to the Standards?

Yes, all electrical components and installations must comply with Australian Standards.

2. Will Arrow or QGC be operating the IPFs?

The inlet processing facilities (IPF) are owned and operated by Arrow.

3. Do you envisage any need for additional water treatment plant capacity, in the form of new Water Treatment Plants, augmentation of existing or renewal?

Arrow plans to upgrade the existing Daandine Water Treatment Facilities (WTF), which was mentioned in the presentation. There are no plans for additional WTPs, as we have an arrangement with QGC to process water at their facilities.

4. Is Arrow required to fulfil Enterprise Framework Agreements (EFA) first and foremost before engagement other supplier services? (Does the local content supplier required to have an EFA with Shell? Are sub suppliers required to have an EFA with Shell?)

Arrow has its own, independent procurement contracting process and will typically tender the work as outlined during this session. This includes registering through the ICN Gateway and following the tendering process as described in the presentation.

5. Does ICN shortlist expressions of interest prior to passing to Arrow?

Through the registration process, the ICN identifies what opportunities are available based on the selection criteria. That information is then passed to Arrow through a matching process to inform a best match between Arrow's requirements and the information provided by the supplier during the registration process.

6. Are the subcontractor packages on track for award as per timeline slide. e.g. SGP Civils and Specialist Roads by end 2020?

Yes. These packages are on track to be awarded in December 2020.

7. SGP Stage 1 - please can you advise anticipated program for 600 well - how many per year 2020-21, 21-22, 22-23...etc

By the end of 2021, Arrow will have three rigs operating in the Surat Basin and, once these are mobilised, we will be drilling between 150 and 200 wells a year from that point forward.

How long we continue that level of activity will depend on the sanctioning of future phases of the project. The entire project, including all subsequent phases, has a total of ~2500 wells.

8. What is the process for right of way rehabilitation? Line seeding or hydro mulching?

It will be dependent on the land access conditions that we received for the particular area, so it could be a combination of both to bring vegetation back onto the right-of-way.

9. Are the wells electrified? If so, who do we contact for electrical infrastructure? Specifically for underground medium voltage cable accessories - joints and terminations?

Wells are generally powered by on-site generators. In some cases, we will connect wells to the Ergon network; however, these will be limited.

For contact details, please see page two of this document.

10. I see that the wellhead skids/control cabinets are scheduled for Q4 2020 and Q1 2021 however the packages are already closed in ICN. Is there an opportunity to still get involved with these packages?

The control cabinets tender has closed; however, there is an opportunity for the wellhead skids package. This package is likely to go to tender in early 2021.

11. Are the "quarters" identified in the timeline based on FY 20 or calendar 2020?

Calendar year.

12. When is the first soil expected to be turned? What is the project start date?

The first activities will start in the field from next week [end-October] and we will commence drilling in December 2020.

13. Will the ICN Gateway cover Fast Moving Consumer Goods (FMCG) services?

The majority of the opportunities, including FMCG, will be posted on the ICN Gateway as they become available.

14. Are suppliers required to have formal quality systems e.g. ISO9001 and safety systems AS4801?

Taken on notice.

It is not a requirement for suppliers to be certified with ISO9001 Quality Management or AS/NZS 4801 Safety Management Systems. However, robust quality assurance and safety management systems will be assessed as part of the tender process, and demonstrated compliance with national and international standards will be viewed positively.

15. Will Arrow and sub-contractors be using local motels for long stays or are they required to stay in camps?

Typically, Arrow does not stipulate where sub-contractors must stay; however, they traditionally stay in camps during shift.

Generally, Arrow utilises local motels to accommodate short-term site visits and existing camps for longer-term stays.

16. Will COVID impact your procurement logistics globally?

The process of adapting to COVID-19 has been a focus of Arrow's business continuity planning team. To date, there has been limited disruption to work execution. The impacts could best be described as a 'concertina' effect where we have had several, short periods of delays in receiving contracted materials. However, we have not seen any longer-term impacts at this stage. If anything, the impact of COVID-19 has reinforced our commitment to local and regional supply of materials and our contracting workforce.

17. Does the tender period shown include the Expression of Interest (EOI) phase (if applicable) or would that happen ahead of the period shown?

The timelines outlined in the presentation include the entire tendering process, from EOI to the contract award. It does not include post-award activities, such as mobilisation.

18. Will there be opportunities for project management/construction management services/execution advisors?

There will be limited opportunity in this space during the construction phase of the project. Project and construction management services would be provided via the Construction Master Services Agreement, which is listed in the schedule. The main opportunities are most likely subcontracting opportunities rather than as a standalone service.

19. Are you able to provide the names of the presenters when the slides are released?

We will provide the names of presenters when we publish the Q&A document on our website.

The presenters' names are at the top of page two of this document.

20. Will there be an opportunity to highlight new technology in the tender packages?

Yes, Arrow is interested in looking at innovation or new ways of delivering projects, particularly where there is a significant benefit to either cost or efficiency. We would be very interested to see those in the tender responses.

21. Is the opportunity to provide telecommunications services limited to the gas fields? Are accommodation camps also in scope for this?

The telecommunication services packages relate to gas fields. Any telecommunication services provided by the camp providers are independently managed by the camp providers and are not part of the scope that Arrow will be tendering.

22. What is the boundary for local content acceptance? What regions fall in or out of the local content definition.

Arrow does not have a strict definition but generally uses 'local' to mean from regional Queensland and the areas in which we operate. Beyond that, we look for Queensland-based and, as a third-level, Australian-based.

23. Is there a plan for any pre investment in local training facilities? To support local and Indigenous support for sub and contractors?

We are currently working through our training requirements. Arrow provides apprenticeships and scholarships at the moment, but we will be able to answer that question more fully in the coming months.

24. Is there a preference weighting offered to small non-Indigenous Australian owned vendors competing against multinationals?

Arrow strongly encourages local and Indigenous participation in all of our contracting and that will be reflected in the tendering process.

Note: the following questions were taken on notice or were not answered during the webinar due to time constraints.

Human Resources

25. Will the pre-employment training take place locally or Brisbane-based?

Our preference is to utilise local training providers and we are able to achieve this for the majority of our training requirements. Where specialised training is required or we are unable to meet the minimum participant numbers set by the training provider, we utilise providers from a wider geographical spread.

26. Will there be opportunities for labour hire providers?

Our Recruitment Services Agreement (RSA) has preferred vendors. This agreement was renewed earlier this year and will be reviewed in another two years.

Wells

27. What is the depth of the wells to be drilled?

Vertical depth for the wells varies from 400 to 500m, while the measured depth varies from 1300 to 1500m.

28. Will the wells be an open hole completion?

The coalface completion will be slotted pipe between swellable open hole packers.

29. Could you please refer to the bottom hole assembly (BHA) components you are going to run in the hole?

The production BHA will include pressure gauges, as well as progressive cavity pumps (PCPs) in vertical wells and electric submersible pumps (ESPs) in deviated wells. The drilling BHAs will include drill bits, drill collars, stabilisers, directional drilling/measurement while drilling, and other connecting hardware.

30. Are any of the wells gravel packed?

No, the wells will not be gravel packed.

31. Will you need short term ground water storage when drilling, prior to connection into the QGC network?

There will likely be a requirement for short-term storage of drilling fluids.

The wells will be tied into the gathering system prior to production.

32. Is inert material required for the production wells?

The permanently installed well equipment is largely mild steel, which is classified as inert in relation to corrosion resistance.

33. Are stage cementing tools and annulus casing packers (ACPs) required for the 600 wells in phase one? If yes, are traditional or pump out tools preferred?

Yes, we will require stage cementing tools and ACPs. We currently utilise drill out tools as standard.

34. Do you anticipate any well to be fracked and if so do you have any opportunities for large fluid Pond Storage and Well Testing? We have specialised chemistry for fracking to improve well flow by 20-30%, who can I send the info to for evaluation?

Arrow will not use hydraulic fracturing within the Surat Gas Project area.

Gathering and Construction

35. What is the diameter nominal (DN) of the continuous welded steel pipeline? Will the main bulk of pipelines be HDPE or steel and what percentage would be steel?

There will be no steel pipelines used in Phase 1 of the SGP.

36. Will there be any requirement for trenchless installation of pipe?

We anticipate there will be a requirement for trenchless pipe installation, however this will be dependent on engineering outputs.

Facilities

37. Will large onsite built water storage tanks be required?

There are no plans to construct additional onsite water storage, as the project will utilise existing dams and ponds.

38. Please explain the scope of the Inlet Processing Facilities

The scope includes a slug catcher, water transfer skid and tank, horizontal flare, plant inlet scrubber, telecommunications infrastructure and an equipment room.

39. How complex or sizable are the in-field compression stations? Will they be built or constructed through Engineering, Procurement and Construction Management (EPCM) contractors (Tier 1 or lower tiers will be invited to tender?). How will the new Field Compression Stations be powered? Grid connection or via local generators?

Arrow plans to construct the new field compression stations (FCS) in subsequent phases of the project (not phase one). Planning for these facilities is ongoing.

During phase one of the SGP, Arrow will utilise existing QGC FCSs.

40. How many metering stations are there in the project?

Phase one scope does not include any gas metering stations. There may be some water metering stations required; however, the number will be subject to further development of the beneficial use network concept and engineering.

41. Will you be requiring sewage treatment plants?

The SGP scope does not include sewage treatment plants.

42. How large is the warehouse for construction and will it be used for operations? Also how many line items will be getting processed

The warehouse is approximately 2000m². The scope includes a hard stand area for equipment storage and a weatherproof covered area to protect project materials. There are approximately 15,000 stock-keeping units (SKUs) and transaction volumes will vary based on activity. Further information will be available during the EOI process.

43. Will the existing centralised control room infrastructure be used or will a new one be built to operate these assets?

The centralised Arrow Control Room will be located in the Arrow's existing Brisbane office.

Contracting, procurement and logistics

44. is the engineer panel set or is going to be bid and procured in 2021?

The Engineering MSA will be tendered in 2021, as per the schedule provided in the presentation.

45. Will Arrow purchase any precast concrete or will the subcontractor supply and install all works for Arrow.

The Main Contractor scope includes supply and install of precast concrete.

46. Waste management showed 'pending approval' has this already been tendered?

The Waste Management Services tender is currently undergoing internal evaluation and approval.

47. When does Arrow expect the EOI process (posting on the ICN Gateway) will be?

Timelines for tender packages are outlined in the presentation.

The presentation is now available on the Arrow website :

<https://www.arrowenergy.com.au/community/engagement>

48. Is the casing /tubing tender completed? Has the Oil Country Tubular Goods (OCTG) goods been awarded already?

The casing and tubing tender for OCTG category has not been issued to the market

49. Will there be any electronic CCTV or security systems required?

The Main Contractor utility scope for the inlet processing facilities includes CCTV.

50. Apart from purchasing from Australian businesses, does Arrow prioritise Australian made material over imported material?

Arrow actively looks to source locally and utilise Australian sourced and made products, where possible.

51. Have the workover and completions rigs contracts been tendered/awarded yet?

No, these are currently in the market for tender.

52. For installation scope of new pipelines, is there an estimate on when it would be posted on ICN Gateway?

The Gathering and Surface Well Pad Facilities tender is currently under internal evaluation.

53. How can I see the sub-contractor packages?

Details of the subcontractor packages are listed within the presentation under Operations and Maintenance and Construction categories.

54. When is the well services packages (scrubbers, metering skids, slug catchers) expected to be out for tender?

The wellhead package is scheduled for release to market Q3 2021, as per the presentation.

55. Will the production casing material be listed in the ICN Gateway specifically?

Yes

56. Will you be tendering for facility cleaning services?

Yes, as part of the Facilities Maintenance package in 2021.

57. Has Arrow awarded or will award an engineering firm as their owner's engineer or will engineering occur in house by Arrow?

The strategy for managing engineering services has not been determined at this stage.

58. When notified of an unsuccessful bid, ICN sends an email outlining a couple of items that let you down - how do we get actual feedback from a person in Arrow so we can improve our submission next time?

Information related to the tender can be sought from the ICN and the Arrow Tender representative.

For contact details, please see page two of this document.

59. What other contractors have you awarded contracts to for construction project opportunities? i.e. CPECC / NACAP, Golding etc. When might you go to tender for construction opportunities, any key dates?

All key packages for construction services and tender opportunities are identified in the presentation. Successful major contractors will be identified on Arrow's website in the future.

60. Has the HDPE package been awarded or put to tender as yet? Has the HDPE package already been awarded?

The HDPE package is currently in the market for tender.

61. I noticed on initial project schedule; the construction starts Q3 2020. Does this mean the contract has been award already? If so, what is the purpose of the procurement?

All key packages, including construction services and Master Services Agreements, are identified in the presentation.

62. Are there any tenders/requirements for property maintenance i.e. around dwellings? The slide showed maintenance more focused to external services slashing etc.

This is included in the Facilities Maintenance tender, which is scheduled to go to market in Q2 2021.

63. Will onsite stores be needed for industrial supply? Will this supply chain requirement be listed on ICN Gateway?

Yes, these requirements will be listed as part of the EOI.

64. Is the Engineering MSA for all disciplines? Or will there be separable disciplines/portions?

The strategy for managing engineering services has not been determined at this stage

65. Has the right of way (ROW) rehabilitation works been awarded yet as part of construction phase?

The Main Contractor scope includes rehabilitation of the ROW. This tender has not yet been awarded.

66. For awarded contracts do sub-contractors use Arrow EOI or go direct to contractors?

This will be dependent on the specific package, which are listed within the presentation under Operations and Maintenance and Construction categories. Subcontractors may either approach primary contractors or bid for works directly, depending on the goods or service.

67. Is Arrow's procurement strategy focused on Tier 2 and 3 providers or the use of a prime contractor model (Tier 1)?

The procurement strategy is different for different goods and services. Arrow actively looks to support local and Indigenous businesses regardless of contracting tier.

68. Does arrow have a head office in Brisbane to show procurement electrical exe samples i.e. electrical?

Arrow has a head office in Brisbane. Key technical specialists are split between our regional and Brisbane offices. Please refer to page two of this document for relevant contact details.

69. A lot of ICN EOIs have closed for supply pressure equipment like Inlet Separators. Can this be reopened for registering?

Closed EOIs are unlikely to be reopened.

70. Will contracts all be hard dollar or will some contracts be reimbursable cost, requiring independent verification?

Contract cost models will vary across different categories and services.

71. Will there be any procurement packages for steel pipes and fittings issued for tender or the market direct from Arrow or only through contractors?

This procurement is likely to be undertaken by the primary contractors; however, Arrow may directly procure some materials, depending on the pipe and fittings.

72. Are transport and logistic tender packages due for release in Q4 2020?

Tender package for transport and logistics are scheduled to be released to market in Q4 2020 or Q1 2021, as per the presentation.

73. Will Arrow be seeking a primary crane and lifting supplier, or do we just contract all major contractors?

Arrow contracts lifting and hoisting services directly to undertake some works; however, these supplier services may be subcontracted out for specific projects.

74. Who do we contact for on plot facilities – towers, microwave, digital mobile radio (DMR), LTE?

The Main Contractor scope includes supply and installation of this equipment, and that package is currently under internal evaluation. Please refer to page two of this document for relevant contact details.

75. Water Treatment awarded; can you advise who?

This scope is currently in the tender process.

76. Who was awarded the Daandine project?

This scope is currently in the tender process.

77. Is there an opportunity for supply of new gas compression units? If yes, when will the tendering process start?

SGP phase one scope does not include the need for new gas compression units; however, this may be an opportunity for future phases.

78. High level [contracting] schedule issued, will a detailed schedule be available?

A detailed contracting schedule will not be released. Please refer to the presentation for a high-level schedule.

79. What design & geotechnical opportunities will be available?

There will be a number of geotechnical and design opportunities throughout the life of the SGP. However, these will be identified and procured on a needs basis, generally as part of the construction of facilities, off plot wells and gathering infrastructure.

Health, safety and environment

80. Will Arrow have any requirement for Defensive Driver Training?

Arrow requires drivers of light vehicles to complete a two-day training course to operate company vehicles on and off-road.

81. Will there be an Environmental Services tender package? What timing is that and what will it include?

Arrow currently has an Environmental Master Services contract in place.

82. Does Arrow place any preference for contractors to prefer subcontractors who have ISO accreditation.

It is a requirement for contractors to pre-qualify subcontractors where they are working on Arrow sites. This process should be fit-for-purpose and documented.

The goal of the prequalification is to ensure that the subcontractor has sufficient capability to manage the health, safety or environment (HSE) risks they may encounter prior to starting work on an Arrow site. The pre-qualification assessment need not be onerous but should reflect the subcontractor scope.

Basic pre-qualification should include as a minimum an assessment of the competency of people to do the work, understanding and control of hazards and suitability of equipment. Subcontractors working under their own systems (mode two) will require a more comprehensive assessment to ensure that their systems are suitable.

Operations and maintenance

83. Does Arrow have contracting opportunities for engineering and equipment data collection which will be needed for ops and maintenance?

Yes. Arrow has a requirement in the terms of a Maintenance Management Systems MSA contract for a company with extensive asset management strategy and maintenance data build experience.

The package scope of works and sourcing strategy is being finalised and expected to go to market in Q1 2021.

Surat Gas Project

84. Are you progressing to the north region at any time? Miles or further afield?

Subsequent phases of the SGP will include an additional ~1900 wells between Miles and Wandoan, between Chinchilla and Kogan, east of the Condamine River and south of Cecil Plains. Planning for subsequent phases continue. Arrow will seek shareholder investment for phases as engineering definition is complete.