



Enabling the
decarbonisation of
Australia's energy
networks

RP2.3-06: Risk Governance for Procurement in Future Fuels

While procurement risk has generally been well managed in the gas sector, there is still room for improvement and value in reflecting on procurement issues posed by future fuels projects linked to hydrogen, biogas and other possible fuels. Procurement is a complex process and failures of materials, equipment or services through ineffective supply chain risk management in transition to the future fuels space could adversely impact the development of the emerging industry. Research into effective mitigation of such threats is warranted to ensure that societal expectations for public safety are met and that the reputation of both organisations and new technologies are enhanced. The Risk Governance for Procurement in Future Fuels project aims to develop an understanding of the practices that can be implemented to improve risk governance in the gas sector and across the energy sector more broadly.

Procurement is a series of planning, organising and coordinating processes used by an organisation to obtain goods and services from an external source. In this project, we consider that procurement fails when failures in procurement planning, specification, purchasing, manufacturing, or delivery of goods or services result in a project failing to meet stakeholder objectives, both short and long term.

Nineteen procurement failure cases were identified in the public domain in different sectors, including construction, transport, energy, aviation, and oil and chemical process industries, to explore why procurement went wrong and what can be learned from them to prevent the recurrence of future procurement failures. The top five lessons for risk governance from past procurement failures are:

Ensure that a selected contractor or supplier has the technical capability to do the work

There are many past cases where projects failed due to errors by a supplier or contractor who should not have been selected to perform work because they did not have the necessary skills and experience. In some cases, owners/operators deliberately chose a cheap but marginally qualified supplier and noted that extra inspection would be required to ensure a good outcome but then failed to perform such inspection/supervision. Falling into this trap can be avoided by pre-qualifying suppliers and contractors, and only inviting bids from groups who are competent to do the work.

Clearly define responsibilities and supervision

Ill-defined responsibilities and lack of effective supervision are a significant causal factor. Interfaces are a known location for errors to arise in organisations, so clear responsibilities for all parties and effective supervision up and down the supply chain are important to ensure any problems are identified early and addressed. This also reduces conflict and misunderstandings. Linked to this is the need for a high level of project team experience and effective project oversight.

Value quality assurance and make it independent

Procurement goes wrong when the work of suppliers and contractors is not independently checked or inspected. Problems can arise due to fraudulent test certificates, etc., but not all testing issues are the result of malicious intent on the part of suppliers. Genuine misunderstandings regarding requirements and/or technical errors occur and are most likely to be identified by a competent, independent inspection focusing on key risk activities. Problems identified must also be acted on in the short term because making changes is usually more difficult as time goes on.

Embed operational requirements into procurement decision-making

Procurement failures occur when operational requirements are not adequately considered in procurement decisions. This can be avoided by the preparation of specifications that ensure the right operational inputs and outputs are included.

Establish common organisational goals

The failure record shows that problems arise when a power balance between client and suppliers/contractors is not achieved, and one side becomes highly dominant. An extremely dominating client does not necessarily get the best outcome, particularly when significant technical expertise resides with the

supplier. For complex projects, 'partnering' style contracts are preferred to align goals and share risk and reward.

The above nineteen incident cases were summarised as a deliverable intended for public release and use in early 2023 titled *Learning lessons from procurement failures: Improving future fuels project outcomes*. This was designed so as to be readily reviewed either in printed booklet form or as an electronic file.

The focus of the second stage of the Project was production of a Risk Governance Framework for Procurement in Future Fuels. The framework was based on a comprehensive literature review, analysis of past procurement failures and fifty-six interviews with professionals involved in procurement across the energy sector from gas pipeline owners/operators to consultants, suppliers, service providers and regulators.

The principles articulated in the Framework are:

Principle 1: Develop a clear scope and specifications and communicate them clearly

Principle 2: Establish a strong client team to get the best procurement outcomes

Principle 3: Develop a realistic plan to address delivery risks

Principle 4: Ensure quality is a priority for everyone

Principle 5: Maintain strong links between procurement and operations

Principle 6: Choose the right supplier/service provider and the right contracting strategy

Principle 7: Ensure the procurement function supports technical objectives

Principle 8: Actively communicate with service providers and suppliers

Principle 9: Conduct sufficient independent inspection/assurance

Principle 10: Ensure changes are adequately managed

Principle 11: Consider logistics early and set up adequate logistics arrangements

Principle 12: Close out procurement mindfully

Each principle also specifies key considerations with a list of reflective questions that both owners or purchasers and suppliers/service providers should ask themselves to ensure the principle and practices are adequate for a given procurement activity. The question sets can be used in several ways: (i) Informally by those involved in procurement to inform decision making; and (ii) As the basis of more formal reviews of procurement plans conducted by individuals or in a workshop setting.

Special considerations for procurement of goods and services in a future fuels context are also included in each principle to account for the new and novel aspects of future fuels project activities and their potentially high levels of uncertainty and complexity.

Much like the earlier deliverable intended for public release, these twelve key principles and their associated practices and key considerations were also summarised in a booklet titled *Risk Governance Framework for Procurement in Future Fuels*, designed for ease of distribution in early 2023.

In addition to the two booklets, three detailed research reports have been completed and are available on the FFCRC website for use by members.

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