corvative

Capability Statement

Project initiation, development and execution services for energy, infrastructure and resources

"Explanations exist; they have existed for all time; there is always a well-known solution to every human problem — neat, plausible, and wrong."

–H.L. Mencken

Corvative Pty Ltd (***Corvative***) is a professional services consultancy that provides front-end project planning and development for the energy, resource and infrastructure sectors. Corvative's Principal, Joanne Simpson, founded the company in 2015.

Since 2015, Corvative has provided study and execution phase services to the mining and energy sectors, with electricity generation projects in the National Energy Market (***NEM***)) the main focus area since ~2017.

Corvative provides a range of services to our mining, energy and infrastructure clients, including submissions, project initiation, execution planning, procurement, contract management, and closure/closeout.

Submissions

Every project is answerable to its stakeholders: regulators, investors, owners, community groups and others. Corvative can leverage a project's existing knowledge base to produce documentation that meets stakeholder needs. This can range from memos to the government or presentations to an enquiry to full feasibility reports or investment decision business cases.

Length and density vary, but a feasibility report or investor submission can easily run 700 to 900+ pages (200,000 to 300,000 words plus graphics) and take a year or more to produce.

Corvative is experienced in managing complex documentation projects, including preparation and planning, development, and in-house publishing.

Preparation & planning

- Establishing team roles and organisation, review and approval processes;
- Developing document structure, project style guide, templates and dictionary;
- Managing references and citations; and
- Developing productivity tools.

Development

- Writing and visual design;
- Managing multiple authors from multiple organisations;
- Version/revision control;
- Content management;
- Developmental editing;
- Proofreading & copyediting; and
- Troubleshooting.

Review

- Managing the internal and external review cycle;
- Reconciling review comments; and
- Managing organisational approval.

Publishing

- Finalising documents to publication-ready.

Project initiation

Proper definition in the early stages of a project, i.e., front-end-loading (***FEL***), is critical to project success and a reliable predictor of performance in execution. Effort invested early is repaid tenfold in execution.

Major projects bring fresh challenges to an operating business. A business stepping into a major project for the first time may need support.

Owners new to major projects may assume that methods that carried them through concept and early studies will be fit for the next stage.

In early studies, operating businesses usually support essential functions on a business-as-usual basis. This means that as the project develops, the project team will need to adapt and extend many necessary processes to meet feasibility and construction requirements.

We have worked with many projects in concept, prefeasibility and feasibility. Here's how we can help:

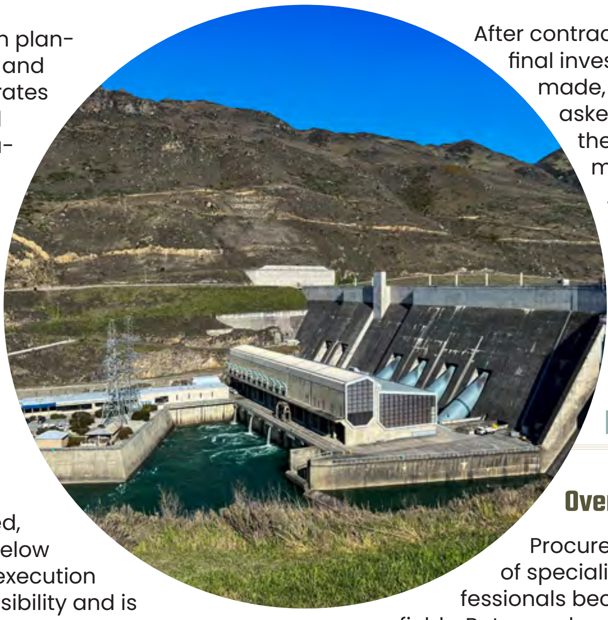
- Gap analysis - We identify where core processes may need modification to support an project environment without exposing the business to unacceptable risk;

- Owner's requirements - We advise on the commercial and administrative controls that should be in place for the expected spend volume and complexity for each stage of a project.
- Review - We review study reports and other project documentation to advise whether the proposed approach is sufficiently defined and documented for the next stage.
- Contractor alignment - We work with the principal contractors to align their existing project procedures with the owner's requirements for oversight and approval.
- Mentoring - We provide ongoing mentoring and senior advisory services to the team or to project leadership.
- System selection - We have hands-on experience with multiple procurement, contract management and project management systems.

Execution planning

Corvative's project execution planning approach is standards and principles-based. It incorporates fundamental Australian and international policies, legislation, standards and recommended practices.

Standards still need to be tailored for the national, regional, and industry context of the project. They also need to match the scale and maturity of the project.



Project execution planning is an iterative process. The exact path depends on the contracting strategy selected, but the process described below is typical. The initial project execution plan is established in prefeasibility and is in two parts:

- Current phase; and
- Execution phase.

In each phase of the project, the current phase plan is detailed only in the areas where controls are required for that phase. For example, design, project controls, procurement, information management, and health and safety (if fieldwork is taking place) or quality (if sampling or testing is taking place) are required early on.

In early phases, the plans are not particularly integrated. E.g., the designer, the environmental and approvals consultant and the geotechnical consultant (if these are not self-performed by the owner) will usually develop their own management plans and incorporate them in their scopes of work.

As the project develops and becomes more complex, the current phase plans also develop until, by the commencement of execution, the current-phase and execution-phase plans are essentially the same.

The execution-phase plans also develop.

In early phases, the owner sets out the framework for the project execution plan and decides how the plan will be structured. This structure is tested and refined in later phases. For example, if a managing contractor is appointed, they may become the custodians of the plan and take responsibility for development to execution level. A mature and experienced owner may retain that responsibility, or validate the plan through external review.

When major contractors are being selected (e.g., designer, construction, underground development, original equipment manufacture), they should be asked to contribute to the development of the management plans during the early contractor involvement (*ECI*) or tender phase. It is essential that they fully understand what the plans require of them and that they incorporate the owner's requirements into their offers.

Contractors should be asked to submit pro forma management plans with their offers. The quality and comprehensiveness of these plans should be included in assessment criteria for selection.

After contractor selection, and once a final investment decision has been made, contractors should be asked to develop and submit their own required management plans.

These do not all need to be available as of the notice to proceed. Management plans, such as commissioning, are typically developed much later.

Procurement

Overview

Procurement is often the domain of specialists. Many procurement professionals become expert in very narrow fields. But complex procurement requires a holistic approach. We bring something different – an explicit focus on the bigger picture.

Strategy

Projects and businesses operate within a complex web of stakeholders and constraints.

The right procurement and contracting strategy is fundamental to success for a business or project.

Any business undergoing change needs to consider its strategic approach.

External constraints often drive procurement strategy. These can include:

- State-mandated preferential procurement or industry-specific legislation;
- Restriction of some activities to nationally-registered companies;
- Tax concessions tied to local content quotas;
- Tariff protections applied to local industry;
- Employment and contracting com-

mitments in project agreements;
* Constraints on regional infrastructure;
* Regional and national skills shortages;
* Natural and social risks: extreme temperatures, earthquake, floods, monsoons, armed conflict, government expropriation;
* Physical constraints on the movement of freight.

We are used to developing procurement strategy under constraints. We have worked with projects in some of the poorest and most remote regions in the world. It is often difficult for principals to embed their corporate social responsibility (***CSR***) obligations into their procurement planning.

We can help project principals with early strategies that support CSR and sustainability objectives.

Procurement and contracting constraints have an important and under-valued impact on option viability. Strategic decisions taken in the early study stage may pre-determine execution approach.

Contracting strategy needs to be considered as early as possible.

We prefer to work with teams in concept and pre-feasibility, while options are still open. We can recommend appropriate delivery methods and execution approach for the project context.

Risk management

It is not unusual for risk assessments and reviews to concentrate on technical and HSE risk to the exclusion of other, less familiar risks. Procurement, contractual and commercial input can be underestimated in risk reviews. This leaves projects exposed to risks such as:

* Supply chain delays;
* Bribery and corruption;
* Collusion and anti-trust;
* Contractor insolvency;
* Claims and disputes; or
* Predatory or monopolistic behaviour by vendors.

We have participated in many risk reviews, and can identify key risks in our areas of expertise.

We have supported teams forced to radically rethink their contracting approach in response to crisis or to major change. We have deep international experience in working through events such as project cancellation, acceleration, suspension and restart, sale, acquisition, change in business objectives, or in senior leadership.

We work with teams to manage contractual exposure:

* Identifying and developing alternatives;
* Developing risk-allocation, remuneration and incentive models that foster positive behaviour; and
* Creating options in the procurement process to lower the risk of being 'locked-in' with one contractor.

Work packaging

Project procurement planning and work packaging is a standard task for an engineering, procurement and construction management (***EPCM***) or other project managing contractor (***PMC***), performed as part of the feasibility study.

But it is not a common skill for principals.

EPCMs and PMCs, though competent to deliver their direct scope of works, are not always aligned with their principal's broader objectives because of their lack of familiarity with the principal's context and constraints.

Drawing on our experience in packaging scope for projects from small in-house construction projects up to megaprojects of over $5 bn, we can work with the principal (either directly or through the EPCM or PMC) to translate the feasibility study report and/or the project scope of works into marketable and manageable contract packages that will help deliver the principal's sustainability and social responsibility objectives as well as meeting the primary project objectives of time, quality and cost.

Scope development

Writing the scope of work for a work package is a basic project engineering competency. But writing the scope of services for a project managing contractor (PMC) requires a different set of skills.

In a management contract, the actual technical scope of work is a small part of what the managing contractor must be directed to do. It is critical to remember that a management contract is essentially a professional services contract.

The focus of a managing contractor's scope of services should be:

* Setting the principal's expectations for the project;
* Defining the boundaries of the managing contractor's role and responsibilities;
* Identifying when the managing contractor must return to the principal for direction or approval;
* Setting out what the managing contractor must do when it is managing other contractors on the principal's behalf.

A frequent challenge faced by both principals and managing contractors is reaching a common understand of the limits of the management authority. Typically:

* The managing contractor is engaged as a principal's project manager;
* The managing contractor has a contract only with the principal;
* The managing contractor's contract with the principal gives the managing contractor authority to manage the other contractors for the principal;

- The contract sets out exactly what the managing contractor can and cannot do in the name of the principal;
- The principal can give more authority to the managing contractor or take it away at any time; and
- The managing contractor cannot increase or decrease its authority without permission.

We have worked with many clients and contractors in developing and clarifying their management scope.

We are experienced in developing the managing contractor scope to ensure the managing contractor delivers the Client's obligations and the scope of works as set out in the study report.

Bid management

It is easy to underestimate the amount of effort it takes to properly evaluate a schedule of rates or a cost-reimbursable bid when it comes in.

Often the bid team gives more attention to the technical and capability assessment than to the quantitative.

But a well-designed pricing template can cut many hours off bid evaluation time - invaluable when the team is under pressure.

When services bids come in, whether reimbursable or rates-based, there tend to be a number of common issues that make it difficult to compare them:

- Inconsistent classification of roles;
- Differing remuneration structures; and
- Differing assumptions about rosters, assignment conditions, allowances, etc.

Detailed planning and intelligent design of bid templates can save a bid team many hours during the high-pressure bid evaluation period.

Having a clear idea at the beginning of what information will be collated and how it will be presented for approval contributes to a high-quality recommendation and greater probability that it will be accepted first time.

We have extensive experience on both client and contractor-side in preparing bids, and in leading competitive tender processes for individual supply, construction and professional services contracts greater than $100M in value.

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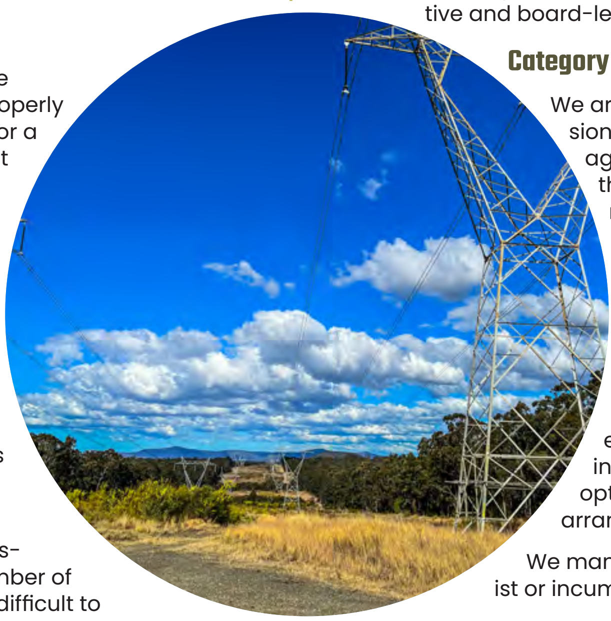
We are experienced in all aspects of major bids, including:

- Managing the flow of requests for information (*RFIs*) and technical queries (*TQs*) between bidders and technical reviewers;
- Assessing the comparative cost and value of bidders' proposals;
- Evaluating the commercial and other implications of bidders' assumptions, exclusions and qualifications;
- Working with the principal's legal and finance functions to assess and mitigate commercial risks; and
- Preparing award recommendations and summary presentations for executive and board-level decisions.



Category management

We are experienced in professional services category management. We understand the commercial structures, motivations and business drivers of professional services firms (especially engineering, project management and ICS).

We have worked with our clients to better understand their service providers, manage charge rates in line with the market, and optimise their commercial arrangements.

We manage exposure to specialist or incumbent contractors by:

- Identifying and developing alternatives;
- Developing risk-allocation, remuneration and incentive models that foster positive behaviour; and
- Creating options to lower the risk of depending on one contractor.

We also develop category strategies in our areas of expertise, including:

- Industry trends and analysis;
- Demand factors (spend profiles, characteristics of end-users, organisational needs); and
- Assessment of the company's current contractor ecosystem (scale, distribution, relationships, ownership, engagement, potential).

Contract management

Contract management is much more than administration.

We can design change management procedures that are consistent with a strict interpretation of direction and variation process in a contract, but are practical and functional in a project environment.

We are experienced in working with principals and managing contractors that have to respond to the impact of site- or project-wide events (e.g., flood, bushfires) on multiple contracts over a short space of time.

We can:

- Contribute to contract design, particularly in areas such as payment, local content and other Environmental, Social, and Governance (*ESG*) obligations, execution planning and claims;
- Manage complex claims;
- Manage contractor deliverables; and
- Anticipate, prepare and administer contractual notices.

Closure

While closures are usually planned, construction projects are often suspended or terminated unexpectedly for reasons outside the control of the project team. These may include:

- Sovereign risk – e.g., expropriation, change in government policy, civil unrest;
- Epidemic or pandemic – e.g., COVID-19;
- Collapse in business case – e.g., fall in commodity prices, collapse of demand, loss of forward contracts;
- Technical failure – asset cannot be built or will never meet operating parameters due to flawed assumptions;
- Unforeseen conditions, e.g., significant geotechnical concerns, hazardous materials; or
- Extreme natural events – bushfire, flood, earthquake, cyclone, etc.

How can we help? Drawing on past experience of similar situations, we can:

- Identify and capture necessary closure activities;
- Develop a closure plan, including stakeholder communications;
- Plan and execute the process for communication with contractors, terminating the contracts and resolving the claims quickly, fairly, and at the lowest reasonable cost;
- Support owners to protect their reputation and social licence-to-operate, e.g., by finding cost-effective solutions to assist small local businesses at financial risk due to the cancellation;
- Assess project systems and procedures for retention, retirement or redeployment; and
- Preserve project value (especially developed IP).

Our experience

Industry & commodity

Infrastructure

- Ports & rail
- Energy - pumped hydro energy storage, gas power generation, oil & gas processing

Mining

- Aluminium, Bauxite, Coal, Copper/gold, Diamonds, iron ore, Mineral sands, Nickel, Potash, Uranium

IS&T

- Organisational transformation
- Transaction processing

Country/region

- Argentina, Australia (WA, NSW, Qld), Belgium, Canada, Guinea, Mongolia, Norway, Philippines, Sweden, United States

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