SCOPE OF SERVICES – MECHANICAL ENGINEERING SERVICES

1. **Background**
   1. The Commonwealth requires the Consultant to provide specialist technical advice and assistance on issues pertaining to mechanical installations, equipment and systems that are part of the Defence estate.
2. **Commonwealth Objectives**
   1. The objective of the Services provided by the Consultant is to support the Commonwealth in relation to developing, delivering, operating and maintaining facilities and infrastructure on the Defence estate. The role will require:
      1. development and review of needs, goals, objectives and requirements for mechanical services for facilities and infrastructure at any stage of the asset lifecycle;
      2. undertaking review and assessment activities of existing installations, equipment and systems and design documentation in order to determine compliance with Commonwealth and Defence policies and Statutory Requirements pertaining to mechanical engineering;
      3. representing the Commonwealth at stakeholder forums and committees;
      4. participation in the evaluation of Tenders for Commonwealth projects and assistance with the preparation of Tender Evaluation Board Reports;
      5. undertaking audits of activities associated with mechanical equipment, systems and infrastructure on the Defence estate for compliance with policy and Statutory Requirements;
      6. assistance with mechanical engineering policy development, including the production of all specified deliverables required to influence, inform or communicate that policy;
      7. the production of technical mechanical engineering reports; and
      8. achievement of required time and quality outcomes.
   2. The specific scope of Services for an Engagement will depend on the circumstances that arise during any stage of the lifecycle of a Defence estate infrastructure asset.
3. **Skills and Qualifications**
   1. The Consultant must ensure that:
      1. any person who is engaged in the performance of the Services who is required, in respect of an Engagement or under a Statutory Requirement, to be:
         1. listed on the National Engineering Register for the General Area of Practice of Mechanical Engineering; or
         2. registered as a mechanical engineer with a State or Territory body,

is so listed or registered; and

* + 1. sufficient personnel with such listing or registration are retained and available to perform the Services throughout the Term.
  1. The Consultant shall have and maintain the following skills for the term of the Engagement:
     1. demonstrated ability to review complex projects quickly and efficiently in a professional and objective manner;
     2. demonstrated ability to interpret and produce technical documentation, technical drawings (2D and 3D), reports and assessments;
     3. demonstrated problem solving, analytical and conceptual skills to produce solutions to complex technical issues;
     4. well-developed oral and written communication skills and proven capacity to represent an organisations interests in a variety of different forums; and
     5. demonstrated ability to work under limited direction, applying priorities and organising a range of work activities to meet target dates.
  2. The Commonwealth requires suitably skilled persons to be offered by the Consultant, matched to the specific needs of the Services. The Consultant must have and maintain for the term of the Engagement an in-depth understanding of all relevant Statutory Requirements and policy frameworks for the Services, including any relevant applicable Australian and international standards. These include:
     1. the Defence business environment and the Defence website;
     2. the National Construction Code; and
     3. Commonwealth, State and Territory legislation regulating any aspects of mechanical installations, equipment or systems.

1. **Strategic, Advisory and Policy** 
   1. The Consultant must provide strategic, advisory or policy services in accordance with the timeframes outlined by the Commonwealth's Representative. These Services may include:
      1. policy research and development in support of mechanical engineering services and the production of relevant documentation in support of:
         1. lifting equipment (lifts, escalators, cranes, hoists, conveyors and winches);
         2. Heating Ventilation and Air Conditioning (**HVAC**) systems;
         3. refrigeration systems;
         4. hydraulic oil systems;
         5. pneumatic systems;
         6. pressure vessels;
         7. other special plant covered by Defence's Joint Special Licence; and
         8. mechanical aspects of rotating equipment (pumps, generators, motors etc); and
      2. provision of mechanical engineering advice to the Commonwealth and industry to assist delivery of Defence estate infrastructure and building planning, designs, development, operation, maintenance and disposal activities in the areas listed in paragraph (a).
2. **Services**
   1. The Consultant must provide the following specific Services in accordance with the timeframes outlined by the Commonwealth's Representative:
      1. assessment of mechanical engineering briefs, mechanical engineering reports and performance solutions including associated supporting information;
      2. review of building and infrastructure designs for compliance with Commonwealth and Defence policy, standards and Statutory Requirements;
      3. assisting the Commonwealth with mechanical engineering policy development, including research into mechanical installations and systems best practice, as well as research into design, operation, maintenance and disposal practices and solutions for mechanical engineering applicable to the Defence estate;
      4. provide advice on matters of regulatory and policy compliance;
      5. liaise with internal and external organisations and provide timely, accurate and professional advice in relation to mechanical engineering policy and infrastructure;
      6. participate in mechanical engineering inspections and audit programs;
      7. provide timely, accurate and professional advice in relation to mechanical engineering policy;
      8. develop and review needs, goals, objectives and requirements for mechanical services for infrastructure at any stage of the asset lifecycle;
      9. develop and review technical performance measures to be attributed to requirements identified for mechanical services for infrastructure at any stage of the asset lifecycle;
      10. develop, review, participate in and report on test and evaluation activities to be undertaken on the mechanical installations, equipment and systems at any stage of the asset lifecycle to verify the performance of the mechanical engineering services against the identified requirements;
      11. undertake review and assessment activities in order to determine compliance with Commonwealth and Defence policies and Statutory Requirements, including aspects of:
          1. existing mechanical installations, equipment and systems;
          2. project briefs;
          3. design documentation; and
          4. engineering reports and performance solution reports;
      12. representing the Commonwealth at stakeholder forums and committees such as:
          1. Australian Standards committees; and
          2. stakeholder consultation forums for the development of legislation and regulations at the State, Territory and Commonwealth levels;
      13. review and comment on building design documentation for compliance with Commonwealth and Defence policies and Statutory Requirements including WHS Legislation and regulations;
      14. participation in the siting board process as a representative of the mechanical engineering discipline;
      15. witnessing and reporting of key construction, installation and commissioning activities for the mechanical engineering discipline (including compliance reporting);
      16. attendance as a representative of the mechanical engineering discipline at Defence Smart Buyer workshops;
      17. participation in the evaluation of Tenders for Commonwealth projects and assistance with the preparation of Tender Evaluation Board Reports;
      18. undertaking audits of mechanical engineering activities on the Defence estate for compliance with policy and Statutory Requirements;
      19. undertake specified activities in the field of mechanical engineering to assist in the development of policy documents and accompanying support/guidance material;
      20. provide to Commonwealth employees in the field of mechanical engineering mentoring and opportunities to develop their knowledge and experience in mechanical engineering in order to aid in their professional development;
      21. undertake industry reviews of engineering competency claims to aid Commonwealth employees in their professional development and achievement of charted status with Engineers Australia;
      22. assess performance solutions and comment as required on safety management strategies;
      23. participate in mechanical engineering policy development activities;
      24. prepare correspondence, briefs, reports and technical papers in the appropriate format; and
      25. source other expertise as required to deliver the Services specified.
3. **Meetings**
   1. The Consultant will be required to attend:
      1. project team meetings to provide infrastructure related mechanical engineering policy and compliance advice;
      2. meetings with approved stakeholders to assist with understanding and resolution of mechanical engineering issues and participate in Defence Stakeholder Groups for mechanical engineering; and
      3. inspection and audit meetings including witness and commissioning tests to assess mechanical engineering safety and compliance.
   2. The Consultant may be required to travel to Defence sites or other locations as part of delivering the Services.
4. **Deliverables**
   1. As specified for a particular Engagement including reports, presentations, papers, reviews and advices.
   2. The Consultant may be required to:
      1. report on research conducted into industry best practice regarding current and emerging mechanical engineering practices and provide a detailed report and recommendations; and
      2. deliver awareness presentations on Defence policy pertaining to mechanical engineering and any associated mechanical engineering requirements.
5. **Interpretation**

Unless the context otherwise requires, capitalised terms in the Scope of Services or Brief will have the meaning given to them by the Defence Infrastructure Panel - Environment, Heritage and Estate Engineering 2020-2027 Terms of Engagement, Panel Conditions, Official Order, or the meaning given to them by the Commonwealth as published on the Defence website (<https://www.defence.gov.au/business-industry>), from time to time.