

## PROJECT EXPRESSION OF INTEREST



**Date:** 29/04/2022

**Project Title:** Snowy 2.0 – Future Generation Joint Venture

**Project Description:** Salini Impregilo, Clough and Lane trading as Future Generation Joint Venture (Future Gen) is a main contractor of Snowy 2.0 EPC Project. The Project is a pumped hydro project that will increase the generation capacity of the Snowy Mountains Scheme by up to 2,000MW and at full capacity will provide approximately 350,000MW/h of energy storage. The project includes all activities associated with the requirements for the Snowy 2.0 Pumped Hydro-electric Scheme.

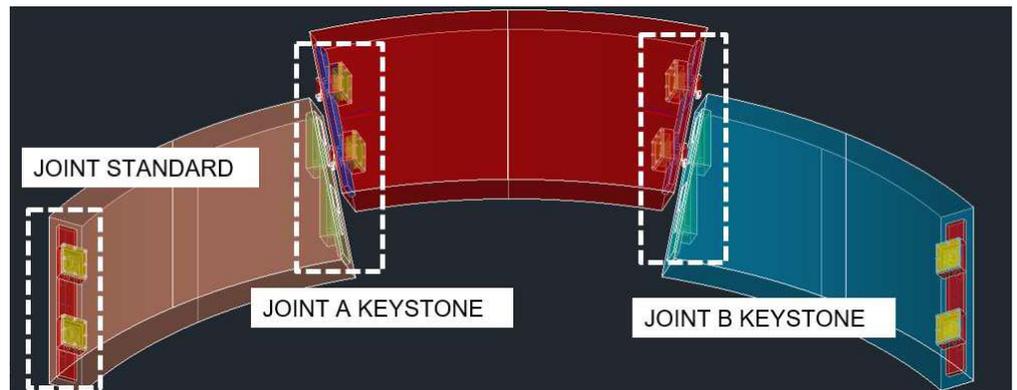
**Opportunity Title:** Future Generation Joint Venture (FGJV) would like to engage a company with proven project experience for the manufacturing and supply of Steel Couplers with disc springs (precision engineering) used in the alternative design solution, under study, for the Inclined Pressure Shaft (IPS). The IPS is a mechanically excavated hydraulic tunnel (using a TBM) with an internal diameter of 9,84m and a length of about 1.52 kilometers. The application of FACS (Force-Activated Coupling System) segments is extended for about 200m beyond the IPS on either side, for a total length of application of about 1.952km, which corresponds to about 976 rings (each 2m long).

**Opportunity Description:** The vendor is required to state its interest for the manufacturing of the following scope of works (but not limited to):

- The steel material to be used for FACS fabrication is S355. The disc springs Febrotec: 0S4430G3 (or equivalent, being subject to approval by the Client).

Outer $\varnothing$	Da	200 [mm]
Inner $\varnothing$	Di	112 [mm]
Thickness	t	16 [mm]
Unloaded Length	L0	18.8 [mm]
Reduced Thickness	t'	14.7 [mm]
Loaded Length	L1	16.7 [mm]
Force at Length L1	F1	305100 [N]
Standard		~ EN16983(2093)
Disc Spring Group		3
Material Code		1.8159
Weight		2,410.000 [g]

- The system is sensitive to spring precompression during coupling, where stringent tolerances shall be adopted as follow:
  - 1) Socket thicknesses (female): -0,00 & +0,10 mm
  - 2) Pin thicknesses: -0,00 & +0,10 mm
  - 3) Male joint thickness: -0,00 & +0,10 mm
  - 4) Pin total height: -0,10 & + 0,00 mm
  - 5) Pin shaft diameter and dimensions: -0,00 & +0,10 mm
  - 6) Disc Spring height: -0,30 & +0,30 mm
  - 7) Disc Spring thickness: -0,10 & +0,10 mm
  
- Three types of FACS couplers are used: coupler for standard segment, coupler for keystone segment (type A) and coupler for keystone segment (type B). On the male joints, each pin is connected to N.3 disc springs which undergo deformation during segment erection to provide precompression along the tunnel radial joints.



- During mass production, dimensional check of all joints (frequency: 100%) produced shall be performed and certificates shall be provided.
- All accessories present in the FACS design drawings to be supplied (e.g. washers, bolts 10.9, flat spacers, conic spacers, etc.).
- Project requirements and accreditation to international standards such as ISO 9001, ISO 14001, ISO 45001.
- The Vendor shall comply at any time with all requirements relates to project in respect of Traffic Management System for transport of goods to FGJV project site as per the regulation in force in Australia during the lifetime of the Contract.
- Ensure adequate capacity for uninterrupted supply as per the agreed production schedule.
- Transport of goods to site shall comply with to Chain of Responsibility requirements as per the Australian Legislation.

### **Requirements:**

FGJV requires Vendor:

- to provide evidence of similar experience in the Business Industry
- to provide evidence of the required government or industry certifications, licenses, associations and/or insurances to deliver the opportunity.
- to comply with all Safety and Environmental Management requirements for the Project. Site Specific Environmental Management Plans
- to demonstrate an exemplary safety record and a documented management system for tracking safety performance
- to be financially viable and can demonstrate commercial value.
- to demonstrate a strong commitment to training and retaining a local workforce
- to have an excellent track record in employing and progressing the careers of Indigenous people
- to progressively finding ways to develop the careers of women, veterans, and people with disabilities.
- Treat the environment they are working in with respect and consideration.
- To carefully restrict access to this Confidential Information to employees, contractors, and third parties as is reasonably required and shall require those persons to respect nondisclosure restrictions.

### **General Information:**

FGJV will consider all ICN Registrations where:

- The business demonstrates through their response a clear capability against the key requirements.
- The business completes a response to all Future Gen questions and/or Future Gen documentation
- The businesses ICN profile is up to date and complete.
- The registration is complete prior to any closing date.
- The business operates in Australia and is a registered Australian business.

### **Local & Regional Content:**

FGJV strongly encourages businesses who have head offices and/or dedicated premises with the appropriate Local Government approvals from the following regions:

- Snowy Monaro Regional Council Local Government Area.
- Snowy Valleys Council Local Government Area.
- Furthermore, Future Gen strongly encourages Aboriginal and Torres Strait Islander businesses to submit applications.

### **Notes:**

FGJV will obtain ongoing reporting from ICN on a regular basis.

FGJV will review all registrations, noting that any incomplete registration will be excluded from consideration.

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Further involvement may range from a request for a follow up meeting; request to prequalify, through to request for tender.

Submitting a registration of interest does not guarantee that the supplier will be selected for prequalification or tender opportunities.