

# **Position Details**

# Technical Services - CSOF3 & CSOF4

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THE FOLLOWING INFORMATION	N IS FOR APPLICANTS	
Advertised Job Title	Industrial Electrician (2 roles)	
Job Reference	101680	
Tenure and work schedule	Indefinite, full-time or part-time (minimum 0.8 FTE prorate for part time).	
Salary Range	CSOF3: AU\$76,068 - AU\$96813 per annum (pro-rata for part-time)	
	plus 15.4% superannuation, plus \$4497 per annum site allowance	
	CSOF4: AU\$100,103 - AU\$113,251 per annum (pro-rata for part-time)	
	plus 15.4% superannuation, plus \$4497 per annum site allowance	
	Remote area allowances and close call allowances apply when deploying to the remote site.	
	*NB: This position is offered across two CSOF levels, the appointment level will be determined by the qualifications, skills and relevant experience of the successful candidate's ability to meet essential and desirable selection criterion.	
Location(s) and office	Geraldton, WA (Nhanhangardi, Naaguja, Wilynyu and Amangu Country)	
arrangements	The base location of the team is Geraldton site, with a Mon-Fri FIFO work week at the observatory in Murchison (located approximately 350km inland from Geraldton), and to other sites as required at times.	
Relocation Assistance	Will be provided to the successful candidate if required	
Applications are open to	Australian/New Zealand Citizens and Australian Permanent Residents	
Position reports to the	ASKAP EMC & Electrical Workgroup Leader, Space & Astronomy	
Client Focus – Internal	85 -95%	
Client Focus – External	5 -15%	
<b>Number of Direct Reports</b>	0	
Enquire about this job	Contact Tom Cox, via email at Tom.Cox@csiro.au.mailto:	
Support and workplace adjustments	We offer a range of reasonable supports and workplace adjustments. Please let us know via email at <a href="mailto:careers.online@csiro.au">careers.online@csiro.au</a> if we can help you to equitably participate in our recruitment process or the role itself.	
How to apply	Apply online at <a href="https://jobs.csiro.au/">https://jobs.csiro.au/</a>	
	Internal applicants, please apply via Jobs Central	
	If you experience difficulties when applying, please email <a href="mailto:careers.online@csiro.au">careers.online@csiro.au</a>	

# **Acknowledgement of Country**

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the areas that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our vision towards reconciliation.

# Diversity, inclusions & belonging

At CSIRO, diversity, equity, and inclusion are central to our purpose and impact. We value diverse perspectives, which drive innovation and help us address complex challenges.

Inclusion is key to our culture, ensuring everyone feels supported and empowered to contribute their best work. We recognise the intersectionality of experiences, identities, and social factors that shape each individual. By embracing diversity, we learn from the uniqueness of our people, creating a culture where all belong. CSIRO is an equal opportunity employer, recruiting based on merit and reflecting the community we serve. We value diversity in all its forms, including age, nationality, ability, culture, gender, sexuality, faith, education, and thought.

#### **About CSIRO**



# Who we are Australia's national science agency



CSIRO (Commonwealth Scientific and Industrial Research Organisation) is Australia's national science agency and innovation catalyst and one of the world's largest and most successful publicly funded research and development organisations.

CSIRO is one of the largest and most multidisciplinary mission-driven research agencies in the world. With 51 locations and over 6,300 people across Australia and internationally, CSIRO solves the greatest challenges through innovative science and technology to deliver world-class economic, environmental, and social benefits for Australia in a global context.

Many of CSIRO's innovations were once considered impossible. Fast WiFi, Aerogard insect repellent and the plastic Australian banknote, to name a few.

Until someone, just like you, joined us and took on the challenge.

We are committed to developing and supporting a diverse workforce in its broadest sense and know diverse teams are more effective and deliver more innovative outcomes for science.

As an employee of CSIRO, you will be eligible for the many benefits of working at Australia's National Science Agency. You can read more here:

- Life at CSIRO
- Personal development and learning
- Generous leave conditions and benefits
- Work / life balance



## **About the Australia Telescope National Facility**

CSIRO operates several radio astronomy observatories and data archives that are collectively known as the Australia Telescope National Facility (ATNF). Our technology development program is the cornerstone of the ATNF and is an internationally recognised source of innovative radio astronomy instrumentation, which leads to societal impact.

#### The ATNF includes:

- the ASKAP radio telescope with its wide field-of-view in a legislated radio quiet zone,
- the Australia Telescope Compact Array with its wide frequency coverage, quick response times and flexible configurations,
- Murriyang, our Parkes radio telescope, which is the largest single-dish radio telescope dedicated to science observations in the southern hemisphere,
- the Long Baseline Array (LBA) providing very long baseline interferometry across Australia,
- the Mopra radio telescope, which is used for single-dish observations, particularly at millimetre wavelengths and as part of the LBA
- astronomical data archives that currently provide 15PB of data, as well as various catalogues, databases and software packages used for obtaining and processing data from our facilities, and
- a comprehensive range of expertise, spanning from the intricacies of front-end receivers to deploying machine learning algorithms for analysing the vast data volumes contained within our archives.

Visit <u>Australia Telescope National Facility - CSIRO</u> for more information. For two semesters each year, the ATNF accepts Principal Investigator-driven proposals from the national and international community.

The ATNF has been involved with the international SKA project from its inception, has contributed to its design, and is delivering the beam-forming instrumentation and local infrastructure for the SKA-Low telescope in Australia. In Australia, CSIRO is partnering with the SKA Observatory to build and operate the SKA-Low telescope. The ATNF's locations, telescopes and engineering expertise are in an excellent position to support and extend the science goals of the SKA telescopes over the next decade.

The ATNF forms part of CSIRO's Space & Astronomy research unit, and together we aim to enable humanity to understand our Earth and Universe. This understanding, and our innovative science and technology, contributes to solving the greatest challenges, building future industry, and serving customers from across Australia and the world.



# About the ASKAP radio telescope

ASKAP is located at Inyarrimanha Ilgari Bundara, the CSIRO Murchison Radio-astronomy Observatory and managed out of Geraldton in Western Australia. The radio telescope array consists of 36 parabolic antennas, each 12m in diameter, that works together as a single astronomical interferometer. It is used by astronomers to map the universe above it to unprecedented depths of sensitivity, and completed a rapid survey of the entire sky from 2019 to 2020 that mapped three million galaxies. ASKAP's current five-year program aims to discover new galaxies, investigate galaxy formation and evolution, and discover fast radio bursts and other transient sources with increased sensitivity.

The suite of 36 antennas are fully-steerable, and equipped with novel Phased Array Feed (PAFs) receivers designed and built by CSIRO. These receivers together produce 100Tb/s of raw data which are processed on site using state-of-the-art digital signal processing hardware, also designed and maintained by CSIRO. Exceptionally high volumes of data are transported to the Pawsey Supercomputing Research Centre in Perth, where data is ingested and transformed into science-ready data products. Visit ASKAP radio telescope - CSIRO for more information.

#### **Role Overview**

The role of Technical Services staff in CSIRO is to provide support for scientific research in a diverse range of laboratory and field situations across a range of different research projects. This support consists of the application of accepted technical practices and the development of new practices. The work is usually carried out as a member of a centralised service.

We are seeking two Industrial Electricians to be part of a skilled engineering team that supports ASKAP operations. You will work under broad supervision to assist in the maintenance, operation and upgrade of a wide range of electrical systems at the observatory. The role includes participating in planning, fault finding and repair, testing and installation work.

You will be part of a multi-disciplinary engineering team located on our Geraldton site, with frequent travel to the observatory in the Murchison. This remote site is approximately 350km northeast of Geraldton. At times you could also be working within the broader ATNF technical team, potentially at other sites.

This is an opportunity to combine the advantages of a relaxed, ocean-side lifestyle with a leadingedge technology job at a world-class science and technology research facility.

CSIRO S&A is committed to providing a safe and inclusive work culture and implementing initiatives to improve diversity and equity within our workplaces. This role is offered on a full-time or part-time basis.

*Please note*: While you will be based in Geraldton, there will be regular visits to the Inyarrimanha Ilgari Bundara, CSIRO's Murchison Radio-astronomy Observatory for typically five days in duration. These visits will require overnight stays on site at the Boolardy Accommodation Facility. Staff usually travel out on Monday and return on Friday, by flying or driving.

# **Duties and Key Result Areas across CSOF3 & CSOF4**

- Work within a small multi-disciplinary team, sharing your knowledge and skills with other staff, to maintain the observatory electrical and electronic systems to the highest levels of availability required for the National Facility.
- Apply your knowledge and experience, working under limited direction, to undertake routine maintenance, repairs and upgrades across a range of electrical systems that include:
  - o electrical distribution switchboards and power reticulation (up to 415V),
  - o extensive system of servers and other electronics in water-cooled cabinets,
  - o antenna drive systems including DC and AC motors,
  - o air conditioning and refrigeration plant & equipment.
- Travel frequently to the remote site of the ASKAP radio telescope, some 350km northeast of Geraldton.
- Actively contribute to written and online documentation associated with equipment repair and maintenance, including management of system drawings and schematics, and configuration management.
- Ensure test equipment, electrical spares and components, consumables, and other workshop equipment are well stocked and maintained.
- Carry out regular safety inspections and effect prompt repairs of all electrical equipment. Keep up to date with the latest relevant electrical regulations.
- Assist in a range of site activities and interact and co-operate with other technical and nontechnical staff to ensure the safe and efficient operation of the observatory systems.
- Liaise with the internal group responsible for buildings and other corporate infrastructure and support their contractors in fulfilling this role where necessary.
- Liaise with S&A staff from other observatories to help undertake collaborative projects as required.
- Oversee the activities of less experienced staff and provide on-the-job training as required.
- Communicate openly, effectively and respectfully with all staff, clients, contractors and suppliers in accordance with good business practice, collaboration and enhancing CSIRO's reputation.

- Adhere to CSIRO's Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
- Other duties as directed.

#### **Selection Criteria**

#### **Essential**

- 1. A WA Electrical licence (or ability to obtain one if from another state) with relevant post trade experience and relevant trade qualifications for an Electrician.
- 2. Due to the specific duties and/or conditions associated with this role, it is essential that the preferred applicant can climb steep stairs and ladders and work on structures at height of up to 60m and at times works in confined spaces (occasionally).
- 3. Hold a current Class 'C' Australian driver's licence.
- 4. Demonstrated industrial experience in the maintenance and operation of electrical systems for buildings and plant, preferably including power generation and distribution, servo drive systems, and refrigeration plant and equipment.
- 5. Practical knowledge in the design, upgrade, and installation of switchboards and electrical distribution systems to meet Australian electrical standards.
- 6. Demonstrated experience in planning and conducting the maintenance, repairs, fault finding and diagnosis of electrical systems, including interpretation of civil, mechanical, and electrical drawings.
- 7. Demonstrated ability to work safely and effectively as part of a small engineering team with minimal supervision and display a high level of initiative and self-motivation.
- 8. Good written and verbal communication skills and proven ability to utilise computer software packages for general correspondence and documentation updates.

#### **Desirable**

- 1. Experience with computer-aided drawing (CAD) techniques and computer-based analysis and report writing.
- 2. Industrial experience in the design, installation, and commissioning of electrical servo drive systems and/or electrical control systems involving power electronics/electrical devices, such as PLCs.
- 3. A willingness to be trained and approved as one of the site's HV switching operators.
- 4. A willingness to learn about other systems used for telescope operations, such as electronic and mechanical systems, and assist other staff with work on these systems.
- 5. Qualifications/license in the operation of EWPs, Forklift, Working at Heights, Lifting and Rigging and resuscitation First Aid.

# Not sure if you meet all the criteria?

Don't let that stop you from applying. We recognise there are many pathways to developing skills and experience, and we can consider appointing at different levels depending on what you bring. If you have more experience and capability than outlined, the role may be upgraded to a higher level; likewise, if you are still developing in some areas, we may be able to offer the role at a lower level. If you'd like to discuss whether this opportunity could be the right fit, please contact the person listed on page 1.

# **Required Competencies at CSOF3**

- **Teamwork and Collaboration:** Proactively seeks and considers the ideas and opinions of others from within and outside the team to help form decisions, plans or actions.
- **Influence and Communication:** Puts forward ideas by presenting factual information supported by data, definitions, examples, illustrations or other aids, which will assist in conveying meaning.
- **Resource Management/Leadership:** Provides instruction and assists other staff to complete allocated tasks and activities.
- Judgement and Problem Solving: Identifies and considers the implications of a range of available alternatives in order to select the most appropriate response to problems of a familiar or recurring nature.
- **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
- Adaptability: Willingness to change ideas or perceptions based on new information, contrary evidence or other people's points of view. Prepared to try out different approaches.

# **Required Competencies at CSOF4**

- Teamwork and Collaboration: Cooperates with others to achieve organisational objectives and may share team resources to do this. Collaborates with other teams as well as industry colleagues.
- **Influence and Communication:** Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others' reactions.
- Resource Management/Leadership: Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.
- Judgement and Problem Solving: Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
- **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
- **Adaptability:** Willingness to change ideas or perceptions based on new information, contrary evidence or other people's points of view. Prepared to try out different approaches.

# **Setting you up for success**

We understand that not everyone works in the same way and sometimes people may require reasonable support and adjustments to perform at their best. Whether related to the recruitment process and or the role itself, this may include options such as providing different methods of communication, flexible hours or physical adjustments to work methods. If you feel comfortable, we encourage you to share any support and adjustments you may need to carry out the inherent requirements of the role. Please reach out to the <a href="mailto:careers.online@csiro.au">careers.online@csiro.au</a> if we can help you to equitably participate in our recruitment process or the role itself.

#### **CSIRO** values

CSIRO is a values-based organisation committed to values-based leadership.

Value	Descriptor	Behaviour
People first	Our priority is the safety and wellbeing of our people. We believe in, and respect, the power of diverse perspectives. We seek out and learn from our differences.	<ul><li>Respectful</li><li>Caring</li><li>Inclusive</li></ul>
Further together	We achieve more together than we ever could alone. We listen and collaborate, in teams, across disciplines, across boundaries. We embrace ambiguity and use discussion and persistence to generate unique solutions to complex problems.	<ul><li>Accountable</li><li>Authentic</li><li>Courageous</li></ul>
Making it real	We do science with real impact. We thrive when taking on the big challenges facing the world. We take educated risks and defy convention. We celebrate successes and failures and leverage them to learn as we strive to be the force for positive change.	<ul><li>Partnering</li><li>Cooperative</li><li>Humble</li></ul>
Trusted	We're driven by purpose but remain objective. We fight misinformation with facts. We earn trust everywhere through everything we do. We trust each other and we hold each other accountable. Together our actions drive Australia's trust in CSIRO.	<ul><li>Curious</li><li>Adaptive</li><li>Entrepreneur ial</li></ul>

## **Child safety**

CSIRO is committed to the safety and wellbeing of all children and young people involved in our activities and programs. View our <u>Child Safe Policy</u>.

# **Special requirements**

• The successful candidate will undertake a pre-employment background check. Please note that individuals with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.

- Due to the specific duties and/or conditions associated with this role, it is essential that the preferred applicant can climb stairs and ladders and work on structures at height of up to 25m.
- The successful candidate must be willing and able to work and travel outside of normal hours on occasion as part of an after-hours/on-call support system, and to assist with upgrades and maintenance. Overtime pay and/or flex leave will be applicable as per policy.