



HOLDINGS PTY LTD

# REQUEST FOR TENDER

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## CONTRACTOR WORK PACKAGES

### SHEPI – AIR CONDITIONING & ENERGY EFFICIENCY WORKS

#### DOCUMENT 02

#### SCOPE OF WORKS & TECHNICAL REQUIREMENTS

Issued by ATIZ Group Procurement

This document defines ATIZ's minimum scope, technical, workmanship and property-delivery requirements for contractors tendering to perform work under the SHEPI Air Conditioning and Energy Efficiency Works.

Tender Reference: ATIZ-SHEPI-010

## Document Control

| Item                   | Details                                                                                          |
|------------------------|--------------------------------------------------------------------------------------------------|
| Document               | Document 02 – Scope of Works & Technical Requirements                                            |
| Issued By              | ATIZ Holdings Pty Ltd – Procurement                                                              |
| Applies To             | Tenderers and successful contractors engaged for ATIZ SHEPI contractor work packages             |
| Project Client         | Aboriginal Housing Office (AHO)                                                                  |
| Tender Reference       | ATIZ-SHEPI-010                                                                                   |
| Related ATIZ Documents | Document 01 – Invitation to Tender & Conditions of Tendering; Documents 03–Contractor Conditions |

### 1. Purpose and Application

This document sets out the scope and minimum technical requirements that ATIZ requires its contractors to satisfy when performing allocated works. The requirements apply to all labour, supervision, materials, plant, tools, temporary works, transport, testing, commissioning, documentation, make-good and other activities necessary to complete each allocated property or work package.

#### ATIZ requirement

Where this document requires an approval, referral, instruction, hold point or decision, the contractor must obtain or receive it through ATIZ. The contractor is not to alter scope, substitute products, omit required works or proceed on an unresolved technical issue without written ATIZ direction.

### 2. Scope Overview

- Property scoping, measurement and assessment.
- Split-system air-conditioning sizing, supply and installation.
- Electrical supply, dedicated protection, isolation, controls, labelling and certification.
- Assessment, servicing, decommissioning and removal of existing heating and cooling equipment.
- Refrigerant recovery, recycling/disposal and evidence.
- Ceiling-fan supply and installation.
- External door sealing and approved wall-vent draught proofing.
- LED lamp replacement and related minor lighting works.
- Minor building make-good, patching, painting and reinstatement arising directly from the works.
- Testing, commissioning, tenant demonstration and sign-off.
- Property-specific QA records, digital evidence and close-out documentation.

### 3. General Contractor Obligations

- Provide everything necessary to complete the allocated work to a fully operational, compliant, safe and finished condition, except items expressly stated by ATIZ as being supplied by others.
- Comply with ATIZ-issued specifications, approved products, drawings/details, work instructions, manufacturer requirements and applicable statutory requirements.
- Use qualified, competent and appropriately licensed personnel for each activity.
- Inspect site conditions and verify dimensions, access, installation locations and interfaces before commencing work.
- Protect the dwelling, tenant belongings, existing finishes, services and surrounding property from damage.
- Coordinate all trades so incomplete or partially finished work is not left at the property without ATIZ approval.
- Rectify non-conforming or defective work attributable to the contractor at the contractor's cost.

- Leave each property clean, safe, operational and ready for ATIZ close-out.

## 4. Work Package Boundaries

ATIZ may allocate complete property packages, trade-specific packages or individual work items. The contractor must perform only the work formally allocated by ATIZ and must not assume that every measure listed in this document applies at every property.

### Pricing interface

Unless the ATIZ Pricing Schedule expressly provides a separate payable item, normal scoping, design, coordination, standard consumables, testing, commissioning, evidence capture and ordinary make-good associated with an installation are deemed included in the applicable tendered rate. A separate existing-air-conditioner condition assessment may be payable only where instructed and where a corresponding ATIZ rate item exists.

## 5. Property Scoping and Pre-Installation Assessment

The contractor must complete a property-specific scoping assessment before installation where this responsibility is allocated by ATIZ. Scoping is to establish quantities, design, installation locations, existing conditions, hazards, access constraints and any supporting work required.

### 5.1 Minimum Scoping Records

| Scoping Area             | Minimum ATIZ Requirement                                                                                                                                                                        |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General                  | Front-of-property photo clearly identifying the dwelling, including house number/letterbox where practicable.                                                                                   |
| Air conditioning         | Number of systems; room dimensions for sizing; proposed unit capacity/model; proposed indoor/outdoor locations; proposed mounting height; installation type; expected pipe/capping/cable route. |
| Existing heating/cooling | Type, quantity, location, condition and photographs; whether service, condition assessment or decommissioning may be required.                                                                  |
| Ceiling fans             | Number and room locations; existing fan/light arrangement; ceiling height; bunk-bed restriction; photographs of existing fan where present.                                                     |
| Draught proofing         | Number of external doors requiring seals; wall vents requiring covers only where directed; photographs.                                                                                         |
| Lighting                 | Number/type of suitable lamps; existing lamp type and wattage; unsuitable/dimmer-controlled fittings to remain.                                                                                 |
| Electrical               | Switchboard condition; available capacity; circuit/protection requirements; any load-demand assessment required for electrical upgrade works.                                                   |
| Property condition       | Existing defects or damage relevant to the work area, photographed before works.                                                                                                                |

### 5.2 Air-Conditioner Sizing and Design

- The contractor is responsible for correct sizing and design of each allocated split system.
- Systems must be sized to the actual room/area served and must not be oversized.
- Use the Daikin sizing calculator or another sizing method specifically approved by ATIZ where required by the work instruction.

- As a baseline, dwellings with 3 bedrooms or fewer are generally planned for one system in the main living area; dwellings with 4 bedrooms or more are generally planned for one system in the main living area plus one system in the second living area or master bedroom. Final quantities remain subject to property-specific scope and ATIZ instruction.

### 5.3 Existing Cooling Systems

Where an adequate existing split system or whole-of-house evaporative cooling system is present in the living area, the contractor must undertake the assessment required by ATIZ before recommending new work.

- Complete a full asset inspection where instructed.
- Where estimated useful life is assessed as more than two years, the existing system may be directed for servicing rather than replacement.
- Where estimated useful life is assessed as less than two years, prepare an asset condition report for ATIZ review.
- Do not decide independently to replace, repair or remove an existing system where ATIZ approval is required.

## 6. Split-System Air Conditioning

All air conditioning contractors must hold a current and valid NSW Contractor Licence for Air Conditioning and Refrigeration work, together with a valid Refrigerant Handling Licence and applicable ARClick accreditation.

### 6.1 Equipment Requirements

- Reverse-cycle, non-ducted, single-split refrigerated heat-pump system.
- Factory assembled and fully automatic.
- Inverter type capable of modulating heating and cooling capacity.
- Easy-access removable filter for cleaning.
- Compressor delay-start protection and inbuilt safety controls.
- Thermostatic controls and capability to provide both heating and cooling.
- Suitable for regional/remote NSW conditions, widely serviceable and high efficiency.
- Wall-mounted, hard-wired controller.
- Manufacturer warranty: minimum five years.

#### Approved product

ATIZ will nominate the approved air-conditioning make/model(s) for the contractor package. No substitution is permitted without written ATIZ approval. Where Daikin Alira is nominated, the contractor must install the nominated Alira capacity and compatible hard-wired controller.

### 6.2 Standard Installation Allowance

| Component            | Standard Allowance / Requirement                                                                                                                                                                       |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Refrigerant pipework | 3 metres                                                                                                                                                                                               |
| Capping              | 2 metres                                                                                                                                                                                               |
| Electrical cable     | 15 metres between main switchboard and outdoor unit                                                                                                                                                    |
| Commercial treatment | Individual properties may require more or less than the above. Unless ATIZ's Pricing Schedule states otherwise, no individual-property variation is payable solely because these lengths are exceeded. |

### 6.3 Indoor Unit Location

- Back-to-back installation is preferred where practical and where it does not create WHS or access issues.
- For open kitchen/lounge configurations, locate the indoor unit toward the dining/lounge portion rather than the kitchen.

- Install on the longest suitable wall of the room where practical.
- Prefer a wall away from windows rather than above windows.
- Do not install directly above electrical fittings.
- Locate the indoor unit as close as practical to the outdoor unit while still providing effective conditioning of the room.
- Where an internal-wall installation is required, use neat PVC wall duct/capping for exposed internal services; direct connection into the rear of the indoor unit is preferred where practicable.

## 6.4 Outdoor Unit Location and Mounting

- Wall mounting is preferred where suitable.
- Where the outdoor unit would otherwise be visually prominent from the street, ground mounting may be required.
- Roof mounting is only to be used where necessary and where approved by ATIZ.
- Locate in a safe, dry, shaded and well-ventilated area.
- Provide suitable shading where required for north-facing exposure.
- Maintain all manufacturer-required clearances and select the location to avoid air recirculation.
- Outdoor wall-mounted units are to be positioned between 1200 mm and 1800 mm above ground level.
- Do not obstruct external walkways, egress or access paths.
- Select mounting height and position so normal maintenance can be performed safely.
- Permanently bolt outdoor-unit feet to the mounting structure/pad/rails.
- Provide neoprene double-deflection mounts or waffle-pad vibration isolation in accordance with manufacturer requirements.
- Seal all penetrations completely and capture required evidence.

## 7. Mechanical and Building Installation Requirements

### 7.1 General

- Supply and install all capping, pipework, fixings, drainage connections, flexible connections, trim, sealing materials and anti-vibration mounts required for a complete installation.
- Provide all ordinary lifting, access equipment, work platforms and scaffolding required for the contractor's method of installation unless a separate ATIZ item is expressly instructed.
- Avoid direct contact between dissimilar metals. Where metallic clamps are used, provide separation using insulation and/or suitable tape.
- Provide separation between roof sheeting and condenser mounting structure using waffle pad or equivalent where relevant.
- All brackets, structures, anchors and fixings must have adequate strength and rigidity for service, vibration, traffic and maintenance loads for the life of the installation.
- Make good all penetrations, openings and disturbed finishes caused by the works.

### 7.2 Refrigerant Pipework

- Run pipework straight, parallel to walls/grids and grouped neatly; kinks are not acceptable.
- Deburr all flares and keep pipework clean and free of debris throughout installation.
- Do not impose undue stresses or transfer expansion forces to equipment.
- Provide adequate supports, hangers, anchorage and gradients.
- Refrigerant copper tube: AS 1571.
- Pressure test pipework to relevant requirements; the project specification requires testing to 1.5 times maximum working pressure.
- Use 13 mm fire-rated pair-coil insulation and protect insulation at penetrations.
- Insulate pipework fully to unit connections; exposed bare copper is not acceptable.
- Seal fire-rated wall penetrations with suitable fire-rated sealant to maintain required wall performance.

### 7.3 Drainage

- Internal condensate/waste pipework is to use solid PVC with glued fittings; flexible drain hose is not to be used as permanent drainage.
- External waste pipework is to use the specified suitable material and be securely supported.
- Discharge condensate to an approved garden-bed or sewer location as applicable to the property.
- Drainage must have adequate fall, must not cause nuisance, ponding, slip hazards, erosion or damage, and must be tested for correct flow.

### 7.4 Capping and Penetrations

- Fully cover wall penetrations with wall-entry caps.
- Install capping level vertically and with only the minimum horizontal fall required.
- Avoid capping joints unless the run exceeds a full standard length.
- Seal all penetrations against water and insect entry.
- Where roof penetrations are approved, use suitable proprietary flashing such as correctly sized Dektite fittings and locate to minimise water run-off over the fitting.

## 8. Electrical Works

Electrical work must be performed by appropriately licensed and competent personnel and must comply with ATIZ requirements and applicable rules/standards.

- Supply and install all required interconnecting wiring and electrical supply from the main switchboard to each air-conditioning unit.
- Provide an isolator at the outdoor unit.
- Provide a separate combined RCD/MCB in the main switchboard for the air-conditioning circuit unless ATIZ instructs an approved alternative arrangement.
- Carry out load-demand calculations where required for electrical upgrade works in accordance with AS/NZS 3000 requirements.
- Minimise external conduit. Where exposed conduit is unavoidable, install neatly and avoid excessive flexible conduit.
- Neatly and permanently secure interconnecting electrical services.
- Supply and connect the hard-wired wall controller.
- Permanently label the RCD/MCB. Permanent marker is not acceptable.
- Seal electrical penetrations to prevent insect and weather ingress.
- Issue a Certificate of Compliance for Electrical Work (CCEW) for electrical works as required.

### 8.1 Isolation

- Before commencing relevant electrical installation work, isolate the electrical supply as required and implement lockout/tagout controls.
- Do not allow unlicensed persons to make or terminate electrical connections or install supply conductors that will be connected to electricity.

## 9. Air-Conditioning Controls

- Each split system must have a hard-wired wall-mounted controller.
- A standard hand-held remote control is not to be provided unless ATIZ approves it for a resident-specific mobility, age or accessibility need.
- The controller must provide adjustable fan speed, temperature set point and LCD display.
- Controller settings must be lockable/restricted so ordinary user adjustment is limited to temperature between 20°C and 24°C and fan speed.
- Any proprietary commissioning or installer settings required to implement the restricted range must be completed before handover.

## 10. Decommissioning and Removal of Existing Equipment

Existing equipment is to be removed or decommissioned only where included in the approved property scope or specifically instructed by ATIZ. The contractor must not remove unrelated equipment from rooms where no corresponding new split-system work is being undertaken unless ATIZ directs otherwise.

| Existing Equipment                 | ATIZ Requirement                                                                                                                                                                                                                                                                          |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Window/wall RAC (“rattler”)        | Where a new split system is installed in that room: electrically isolate at the main switchboard; remove unit; leave with tenant if instructed or recycle if unwanted; patch, make good and paint the opening/affected wall.                                                              |
| Electrical heater                  | Where a new split system is installed in that room: isolate electrical supply; remove and recycle; make good, patch and paint affected finishes.                                                                                                                                          |
| Gas heater                         | Where a new split system is installed in that room and removal is approved: isolate gas and electrical supplies; remove and recycle/dispose; safely terminate services; make good, patch and paint. Any specific ATIZ SOR/work-order description takes precedence for detailed make-good. |
| Evaporative air conditioner        | When approved for decommissioning: remove/recycle unit; cap water; isolate electricity; remove ductwork from ceiling; dispose of removed materials; cover ceiling vents and other penetrations. If tenant objects, stop and refer to ATIZ before installing the new split system.         |
| Wood fire / slow-combustion heater | Retain unless property scope specifically requires removal. Where removal is approved, isolate relevant services, remove/recycle unit and flue, and make roof/ceiling penetrations weatherproof and finished.                                                                             |
| Ducted air-conditioning system     | Prepare condition information/report when instructed. Do not independently replace, repair, service or remove until ATIZ confirms the approved scope.                                                                                                                                     |

### Tenant consent / scope control

Where the approved scope requires decommissioning of existing heating/cooling as a condition of the new installation, the contractor must not proceed with the affected new split-system installation if the required decommissioning cannot be completed. Escalate immediately to ATIZ.

### 10.1 Refrigerant Recovery and Disposal

- Recover refrigerant using appropriately licensed personnel and equipment.
- Do not intentionally release refrigerant to atmosphere.
- Provide itemised recycling/disposal evidence when required, demonstrating lawful handling and disposal through an appropriately licensed facility.
- Maintain traceability between removed equipment/property and disposal records where requested by ATIZ.

## 11. Servicing Existing Air-Conditioning Systems

Where ATIZ instructs an existing system service, the minimum service scope includes:

- Run the system and verify general performance and correct operation.
- Check fans, pumps where applicable, indicator lights and controllers.
- Check water and refrigerant lines for leaks, including potential roof-space or flashing leakage.
- Check duct condition and leakage where applicable, including flexible duct insulation.
- Check valves and clear debris as necessary.
- Clean indoor-unit air filters for split systems.
- For evaporative systems, clean louvres/filter pads and replace pads where required within the instructed scope.
- Complete the ATIZ-required system assessment/condition record.
- Follow manufacturer servicing instructions.

Where significant repairs are identified outside the instructed service scope, stop and submit findings to ATIZ for a further decision before proceeding.

## 12. Ceiling Fans

### 12.1 Installation Eligibility

- Install in bedrooms in place of existing light points where allocated and suitable.
- Install in living areas where allocated, but not in kitchen/dining rooms unless ATIZ specifically directs otherwise.
- Do not install in rooms containing bunk beds.
- Do not install where ceiling height is less than 2.4 m.
- Installed fan arrangement must achieve at least 2.1 m clearance above floor level and maintain the required ceiling clearance.
- Do not install a new fan where an existing ceiling fan is already present unless ATIZ specifically instructs replacement.

### 12.2 Product and Performance

- Use the exact fan make/model nominated by ATIZ for the work order/package.
- Hard-wired wall control; remote-only controls are not acceptable.
- Minimum three fan speeds and reversible fan rotation.
- Provide integrated/proprietary light provision suitable for the nominated LED lamp/luminaire.
- Minimum project airflow requirement: 12,000 m<sup>3</sup>/hour unless the approved product schedule states a higher requirement.
- Minimum equipment warranty: three years.

#### **Deka / Clipsal fan packages**

Where ATIZ nominates Deka or Clipsal fans, the contractor must comply with the corresponding ATIZ SOR/product description, including fan size, insulation/earthing arrangement and controller requirements. Do not substitute blade material, size, controller or electrical arrangement based on another product description.

### 12.3 Workmanship and Commissioning

- Install with a neat finish flush to the existing ceiling.
- Conceal electrical and control wiring; visible loose wiring is not acceptable.
- Finish the wall controller flush to the wall.
- Test fan operation, speeds, light control and reverse function before handover.

## 13. Draught Proofing

### 13.1 External Door Seals

- Install only where included in the approved property scope, generally up to two external doors per dwelling.

- Use an ATIZ-approved self-activating door seal suitable for hinged single doors and gaps up to 15 mm.
- Door seal must automatically seal on closure.
- Permanently fix with screws. Adhesive-only seals are not acceptable.
- Install strictly to manufacturer instructions and confirm the door opens, closes and latches correctly after installation.

Approved basis: Raven RP3 or RP4 self-activating door seal or equivalent approved by ATIZ.

### 13.2 Wall Vents

Where instructed by ATIZ, cover internal wall vents in living rooms and bedrooms using a neat, permanently fixed blanking cover plate. Do not cover vents unless they are included in the approved work order/property scope.

## 14. LED Lighting

### 14.1 Lamp Requirements

| Lamp        | Max Power | Minimum Output | Typical Application                                |
|-------------|-----------|----------------|----------------------------------------------------|
| A-shape LED | 5 W       | 350 lm         | Ceiling fan / equivalent 40 W incandescent         |
| A-shape LED | 9 W       | 800 lm         | Bedroom / utility / equivalent 60 W incandescent   |
| A-shape LED | 13 W      | 1,300 lm       | Living area / equivalent 100 W incandescent        |
| PAR38 LED   | 12 W      | 1,050 lm       | External spotlight / equivalent 150 W incandescent |

- Warm white colour temperature: 2700 K or 3000 K.
- Provide Edison screw and bayonet options where required.
- Rated life: at least 10,000 hours.
- Use ATIZ-approved reputable products. The project specification identifies Osram or Philips as suitable examples.

### 14.2 Installation

- Replace all suitable allocated internal and external lamps, including incandescent and compact fluorescent lamps.
- Leave lamps on dimmer circuits or otherwise unsuitable fittings unchanged unless ATIZ provides a specific approved solution.
- If an existing fitting is damaged, unsafe or in poor condition, do not install a replacement lamp; photograph and report the issue to ATIZ.
- Record the quantity and room/location of lamps installed at each dwelling.
- Remove replaced lamps from site and recycle them; do not dispose of removed lamps to general landfill.

## 15. Tenant, Access and Occupied-Property Requirements

Works will generally be undertaken in occupied residential properties. Contractors must conduct themselves professionally, minimise disruption and follow ATIZ appointment and access procedures.

- Attend only within the appointment window and access arrangements issued/confirmed by ATIZ.
- ATIZ requires at least 48 hours' notice to be maintained for planned tenant appointments unless a different lawful arrangement is approved.
- Do not remain at a property longer than reasonably required for the purpose of the visit.
- Do not move heavy tenant furniture or belongings. Where access is obstructed, request the tenant to make the work area accessible and report unresolved obstruction to ATIZ.
- If the tenant is not home or the dwelling is inaccessible at the agreed time, follow ATIZ's rescheduling process. After the permitted follow-up attempt, refer the matter to ATIZ.

- Do not handle, restrain or remove tenant-owned animals. If an animal creates an uncontrolled safety risk, do not commence/continue work; record the issue and notify ATIZ.
- If sharps, illicit substances, suspected illegal contraband or another uncontrolled hazardous item is discovered, stop work in the affected area, make the area safe only if this can be done without exposure, and notify ATIZ. Do not remove such items unless specifically authorised and competent to do so.
- Protect tenant privacy. Photographs are to be limited to property, installation and compliance evidence and must be handled through ATIZ-approved systems.

### 15.1 Tenant Demonstration and Sign-Off

- Demonstrate efficient operation and basic maintenance of installed equipment to the tenant.
- Explain use of the hard-wired controller and restricted temperature settings.
- Assist with completion of ATIZ-required tenant works sign-off and customer satisfaction records.
- Record all approved equipment decommissioned/removed on the tenant sign-off where required.

## 16. Quality Assurance and Property Evidence

ATIZ requires property-specific evidence sufficient to verify scope, workmanship, commissioning, electrical compliance and energy-savings eligibility. Detailed workflow requirements will also be issued in Document 07.

### 16.1 Minimum Property Evidence

| Evidence Area    | Minimum Record                                                                                                                                                                         |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pre-installation | Exterior/front-of-property; existing equipment or clear area showing no existing equipment; nameplate/energy label where replacement is proposed; work-area condition photos.          |
| Air conditioner  | Indoor unit; hard-wired controller; outdoor unit in context showing clearances; outdoor-unit model/compliance plate close-up; penetrations/sealing; installation route where required. |
| Electrical       | Switchboard internals showing protection and labels; load-demand record where applicable; CCEW; other ATIZ-required test/certification records.                                        |
| Decommissioning  | Removed/decommissioned equipment; terminated supply; refrigerant recovery/disposal evidence where applicable; completed make-good.                                                     |
| Ceiling fans     | Each installed fan and controller, with installation context.                                                                                                                          |
| Draught proofing | Each door seal and wall-vent cover installed.                                                                                                                                          |
| LED              | One photo of each lamp type/brand-model installed plus panoramic/context photos where multiple lamps are replaced.                                                                     |
| Completion       | Commissioning confirmation; tenant sign-off; defects closed; property left clean and safe.                                                                                             |

#### Photo integrity

Where the ATIZ/ACP workflow requires it, photos must be date-stamped and geo-tagged and captured using the nominated application. Evidence must be property-specific and attributable to the correct work order. Re-used, mislabelled or non-verifiable photographs are unacceptable.

## 16.2 NCBA / ACP Requirements

- Site assessors and installers must complete required authorised representative training before performing activities that require ACP evidence.
- Individual installer/site-assessor logins are required where the system requires them; credentials must not be shared.
- Complete pre-implementation and post-implementation declarations as allocated by ATIZ.
- Capture required pre- and post-installation evidence for each property.
- Record installed model, quantity, installation/replacement status, installer/site assessor and applicable electrical licence details.
- Provide proof of NMI where allocated to the contractor.
- Support product eligibility evidence and manufacturer specifications.
- Provide refrigerant disposal/recycling evidence for replacements where required.
- Comply with updated ACP evidence requirements notified by ATIZ during the contract.

## 16.3 Ngamuru / Digital Records

- Complete all mandatory work-order line items and property-specific fields allocated by ATIZ.
- Upload property-specific documentation individually where required by the portal workflow.
- Do not assume bulk upload or API capability is available.
- Attend ATIZ/client system training and follow the current user guide/workflow issued for the project.
- Maintain sufficient administration resources to complete evidence and close-out without delaying payment or property completion.

## 17. Waste, Recycling and Site Cleanliness

- Remove packaging, offcuts, building debris and contractor-generated waste from each property at the end of each working day.
- Reuse or recycle materials where practicable.
- Dispose of regulated or other waste only through appropriate licensed facilities.
- Do not leave removed equipment or waste at the property unless ATIZ expressly instructs otherwise.
- Provide disposal/recycling receipts or certificates where required by ATIZ.
- Leave internal and external work areas clean, free from sharp objects, dust/debris and trip hazards.

## 18. Warranty and Defects

| Item                         | Minimum Requirement                                                                                 |
|------------------------------|-----------------------------------------------------------------------------------------------------|
| Air-conditioning equipment   | 5-year manufacturer warranty                                                                        |
| Air-conditioning workmanship | 2-year workmanship warranty                                                                         |
| Ceiling fan equipment        | 3-year equipment warranty                                                                           |
| Other products               | Manufacturer warranty and any specific ATIZ requirement in the approved product schedule/work order |

The contractor must promptly attend and rectify defects attributable to its work. ATIZ may withhold acceptance of a property, work order or payment item until required defects and evidence deficiencies are closed.

## 19. Licences, Codes and Standards

The contractor must hold and maintain all licences applicable to its package. The technical basis includes, as applicable:

- Australian Refrigeration Council / ARCTick authorisations applicable to refrigerant work.
- NSW electrical contractor/trade licences applicable to electrical work.
- National Construction Code.

- Australian and New Zealand Refrigerant Handling Code of Practice.
- Service and Installation Rules for New South Wales.
- Applicable Work Health and Safety legislation and codes of practice.
- AS 1055 – Acoustics: description and measurement of environmental noise.
- AS 1571 – Copper seamless tubes for air-conditioning and refrigeration.
- AS 1668.2 – Mechanical ventilation and air conditioning in buildings.
- AS 1677 – Refrigerating systems, including refrigerant classification and safety requirements for fixed applications.
- AS/NZS 3000 – Wiring Rules.
- AS/NZS 3008 – Selection of cables for electrical installations.
- AS 3100 – General requirements for electrical equipment.
- AS/NZS 3350 / applicable successor requirements for safety of household air conditioners and heat pumps as referenced by the project specification.
- AS 3823 – Performance of electrical appliances: air conditioners and heat pumps.
- AS 4269 – Complaints handling.
- AS 4426 – Thermal insulation of pipework, ductwork and equipment.
- AIRAH Air Conditioning Residential Best Practice Guideline.

#### Current editions and conflicts

Tenderers must comply with applicable current statutory requirements and the project requirements issued by ATIZ. If the contractor identifies a conflict, superseded reference or requirement that cannot be simultaneously satisfied, it must raise the issue with ATIZ before proceeding; it must not silently substitute its own interpretation.

## 20. Inspection, Hold Points and ATIZ Acceptance

| Stage                          | Contractor Requirement                                                                                                                                    |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Before works                   | Approved allocation/work order; required licences/training current; property scope confirmed; risk assessment/SWMS completed; pre-work evidence captured. |
| Before substitution/change     | Obtain written ATIZ approval.                                                                                                                             |
| Before unscoped repair/removal | Stop and obtain ATIZ instruction where work is outside approved scope.                                                                                    |
| Before concealment             | Capture required evidence of services/penetrations where later inspection will not be possible.                                                           |
| Before property close-out      | Complete commissioning, electrical certification, make-good, evidence and tenant sign-off.                                                                |
| Before claim                   | Close outstanding defects/evidence deficiencies required by ATIZ for the relevant claim item.                                                             |

## 21. Technical Non-Conformance

- Immediately notify ATIZ of any non-conformance that affects safety, compliance, performance, evidence integrity or property completion.
- Do not conceal defective or non-compliant work.
- Rectify contractor-caused non-conformance at no additional cost to ATIZ.

- Where the cause or scope responsibility is disputed, protect the property and provide evidence to ATIZ before undertaking additional work outside the approved scope, except where immediate action is necessary to make the site safe.

## 22. Scope Exclusions Unless Specifically Instructed

- General property maintenance unrelated to the energy-efficiency works.
- Removal of heating/cooling equipment in rooms outside the approved installation/decommissioning scope.
- Unapproved replacement of existing air-conditioning or ducted systems.
- Movement of heavy tenant furniture or personal belongings.
- Removal of sharps, illicit drugs or suspected illegal contraband.
- Unapproved structural alterations.
- Unapproved asbestos disturbance or removal.
- Unapproved product substitution.
- Flooring repairs or other consequential repairs unless specifically included in the applicable ATIZ work item.

## 23. Tenderer Technical Submission Requirements

- Proposed trade/work packages tendered.
- Proposed air-conditioning installation methodology and standard crew composition.
- Proposed electrical methodology and licensed resource structure where electrical work is tendered.
- Details of proposed approved/nominated products and any requested alternatives.
- Evidence of applicable licences and competencies.
- Approach to scoping, existing-system assessment and condition reporting.
- Approach to tenant-facing occupied-property delivery.
- Approach to commissioning, QA, photographic evidence and close-out.
- Approach to refrigerant recovery and disposal.
- List of proposed exclusions, assumptions or technical departures. A blank departures schedule will be treated as acceptance of the ATIZ requirements.