Industry Use and Impact

A Comprehensive Survey Analysis Report

Training Product – UEE20120
Certificate II in Split Air Conditioning and Heat Pump Systems

Powering Skills Organisation Ltd

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Executive Summary

This report presents a comprehensive, data-driven analysis of the UEE20120 Certificate II in Split Air Conditioning and Heat Pump Systems, drawn entirely from two independent PSO-led industry consultation instruments. All figures are sourced directly from survey data; no findings have been fabricated or inferred beyond what the data directly supports.

Issues	Broader Survey (n) 526	Targeted Survey (n) 204
Scope of work adequate	4.4 %	-
Report out-of-scope work frequently	-	35 %
Aware of safety incidents	-	39%
Support some form of reform	-	70%
RTOs deliver ≤2 days practical training	-	56 %
Name practical hours as #1 priority	-	58 %

The two surveys consistently reveal that the qualification is simultaneously valued as a legitimate workforce pathway particularly for plumbers and gasfitters expanding into heat pump hot water installation and criticised as inadequate in its current form. Only 30% of targeted survey respondents believe no changes are needed. A combined 65% believe the current qualification is inadequate or requires significant reform.

The most critical finding is training duration: 70% of completers finished the course in under four weeks; 56% of RTOs deliver two days or fewer of practical training for a qualification that authorises independent work with pressurised refrigerant systems, brazing, and electrical installations. Combined with 39% of respondents being aware of safety incidents involving Certificate II holders, these findings constitute a significant safety case for reform.

Ten evidence-based recommendations are presented, prioritised as Immediate, Short-term or Medium-term, for consideration by the HVACR Subject Matter Expert (SME) Group and UEE Review Technical Committee as part of the UEE full training product review.

1. Background and context

Powering Skills Organisation (PSO) is the Jobs and Skills Council (JSC) responsible for the UEE Electrotechnology Training Package (UEE), covering electrical, refrigeration and air conditioning, and energy sectors.

The UEE20120 Certificate II in Split Air Conditioning and Heat Pump Systems provides a pathway for licensed electricians, plumbers, and gasfitters to expand their service offering to include single-head (not exceed 18-kilowatt (kW) refrigeration) split system installation, commissioning, and decommissioning. Holders are also required to hold an ARC RSS03 Refrigerant Handling Licence – qualified persons (Restricted heat pump – split systems – installation and decommissioning licence).

The qualification sits below the Certificate III in Air Conditioning and Refrigeration (UEE32225) in the Australian Qualifications Framework (AQF) hierarchy and has been subject to significant industry debate regarding its adequacy, scope, and impact on trade standards. As part of the UEE full training product review (Project Reference: PSO_ANN_2425_009), PSO conducted two sequential consultation instruments to gather industry evidence.

2. Methodology

2.1 Survey instruments

Table 1: Survey Methodology Comparison

Parameter	Broader HVACR Survey	Targeted Cert II Survey
Survey Period	July – August 2025	March 2026
Total Respondents (n)	526	204
Distribution	PSO, AIRAH, ARC, AMCA networks	PSO, AIRAH, ARC, AMCA networks
Primary Focus	Broad HVACR sector skills and qualifications	UEE20120 qualification — use, adequacy, impact, reform
Cert II Coverage	Single section: scope adequacy + open-ended	Comprehensive: 24+ question sets covering all dimensions
Response Format	Multiple choice, rating scales, open-ended	Multiple choice, rating scales, open-ended

Source: PSO consultation instruments, 2025–2026

2.2 Respondent profile — Targeted Survey (n=204)

Employers constituted 59% of respondents, predominantly small businesses of 1–4 employees (57%). Geographic coverage was national: Queensland (59), Victoria (52), Western Australia (38), National respondents (26), New South Wales (22), and other states/territories (17). Primary trade backgrounds included licensed electricians (19), refrigeration and air conditioning mechanics (19), and licensed plumbers (16). 40 respondents confirmed they hold or have completed the Certificate II; 34 confirmed they do not.

3. Broader HVACR survey: Certificate II findings

3.1 Scope adequacy — Response rate and results

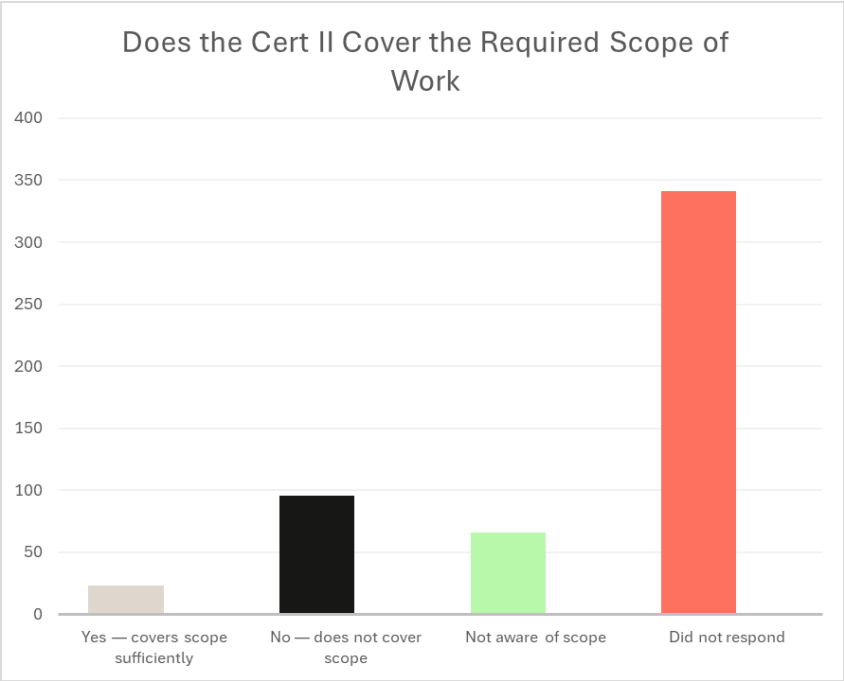
Of 526 total respondents in the broader HVACR survey, only 185 (35.17%) engaged with the qualification scope adequacy question. Of those who answered, only 12.4% (23) confirmed the qualification adequately covers required scope; 51.9% (96) said it does not; with 35.7% (66) stating they were not aware of the qualification's scope. The low engagement rate itself indicated limited familiarity with the qualification across the broader HVACR workforce.

Table 2: Broader HVACR Survey — Scope Adequacy Responses

Response	Count (n)	% of Total (n=526)
Yes — covers scope sufficiently	23	4.37 %
No — does not cover scope	96	18.25 %
Not aware of current coverage/scope	66	12.54 %
Did not answer / No response	341	64.82 %

Source: HVACR Industry Sector Survey, July–August 2025

Figure 1: Broader HVACR Survey — Does Cert II Cover Required Scope?



Source: HVACR Industry Sector Survey, July–August 2025)

> *"Of those that responded, 66 (35.67%) noted that they did not know the current coverage or scope of the qualification to answer this question. Further investigation into this question is needed to understand why respondents do not sufficiently feel that the qualification supports the scope of work required as a job outcome."*
>
> — HVACR Industry Sector Survey Report, October 2025

3.2 October 2025 recommendation

The HVACR Industry Sector Survey Report (October 2025) concluded: "it is recommended that a considered review of this qualification is undertaken to ensure it supports the uplift of technical skills of those that are undertaking the qualification. Furthermore, noting the concerns, it is recommended that the Certificate II incorporate more in-depth skill development for working safely with refrigerants, commissioning, or pressure testing." This recommendation directly informed the design of the targeted Certificate II survey analysed in Section 4.

4. Targeted Certificate II survey: Deep-dive analysis

4.1 Respondent motivations for completing the qualification

Among 47 respondents who had completed the qualification, primary motivations were expanding service offerings as a licensed electrician (22, 11%) and working on residential split

system installations (18, 9%). Only 4 respondents (2%) cited the qualification as a pathway to Certificate III, and only 4 respondents cited employer requirement. This confirms the qualification primarily serves as a service-expansion pathway for already-licensed tradespeople.

Table 3: Motivations for Completing Cert II

Motivation	Count — Multiple selections permitted
Expand service offering as a licensed electrician	22 (11%)
Work on residential split system installations	18 (9%)
Expand service offering as a plumber/gas fitter	14 (7%)
Obtain ARC Restricted Refrigerant Handling Licence	12 (6%)
Client/market demand for air conditioning services	11 (5%)
Increase income/business revenue	10 (5%)
Required by employer	4 (2%)
Pathway to Certificate III	4 (2%)
Other	5 (2%)

Source: Cert II Survey, March 2026

4.2 Course delivery: Duration and practical training hours

The most consistent concern across both surveys centred on the short duration of Certificate II delivery. There were 47 responses to the course duration, of which 70% of completers finished the course in under four weeks: 32% in less than one week. The RTO section reveals the most concerning data: 56% of RTOs (21 of 38) deliver two days (16 hours) or less of practical hands-on training, for a qualification that authorises independent work with pressurised refrigerant systems, brazing, and electrical connections to outdoor units.

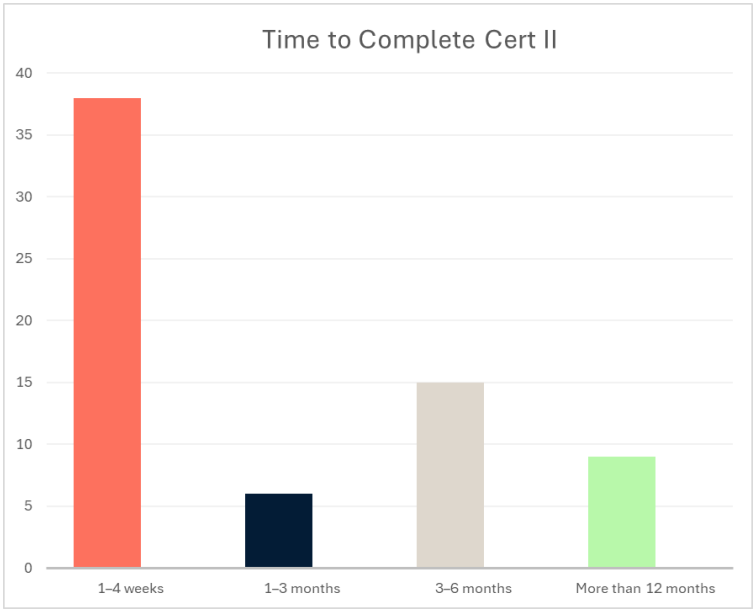
Table 4: Course Duration and Practical Training Hours by RTOs

Time to Complete	Count (n)	Practical Training (RTO-reported)	Count (n)
Less than 1 week	15 (32%)	Less than 1 day (<8 hrs)	4 (11%)

Time to Complete	Count (n)	Practical Training (RTO-reported)	Count (n)
1–4 weeks	18 (38%)	1–2 days (8–16 hrs)	17 (45%)
1–3 months	3 (6%)	3–5 days (16–40 hrs)	8 (21%)
3–6 months	7 (15%)	5–10 days (40–80 hrs)	4 (11%)
More than 12 months	4 (9%)	More than 10 days (80+ hrs)	5 (13%)

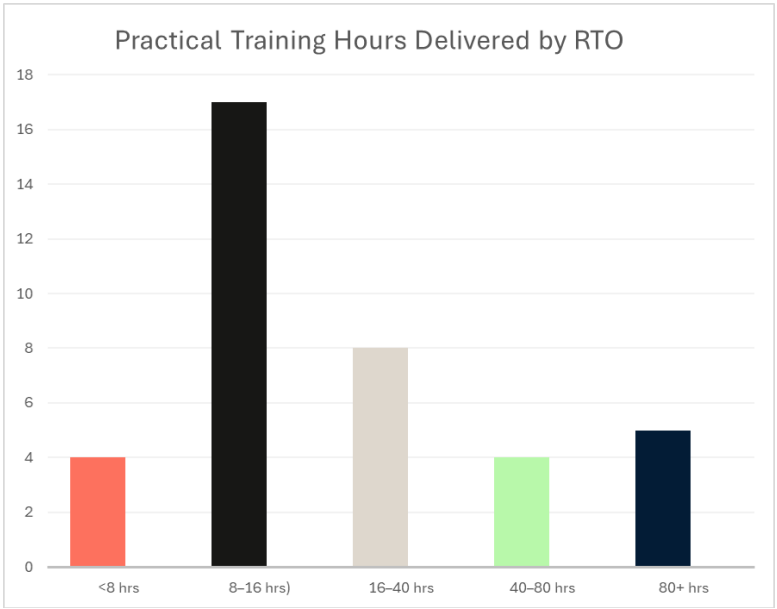
Source: Cert II Survey, March 2026

Figure 2: Time to Complete Cert II



Source: Cert II Survey, March 2026

Figure 3: Practical Training Hours Delivered by RTOs



Source: Cert II Survey, March 2026

"Cert 2 shouldn't be a 2-day course, this is absurd. Cert 2 should do training with professionals holding a Cert 3 or higher for a minimum 6–12 months to ensure they understand the quality standards. We are all aware of the shortage of professionals in the industry, this is a significant contributing factor."

— Employer Respondent — Cert II Industry Use & Impact Survey, March 2026

4.3 RTO delivery challenges

RTOs identified the following challenges in delivering the qualification (multiple selections permitted, n=38). The co-occurrence of "pressure for quick completion" (11 RTOs) and "assessment rigour vs pass rate expectations" (9 RTOs) suggests that market forces are actively working against competency assurance, a problem training package revision alone cannot solve without complementary regulatory interventions.

Table 5: RTO Delivery Challenges

Challenge	Count (n)	Significance
Limited practical training time — short course model	14	Critical
Keeping content current with new technology/refrigerants	13	High
Student cohorts with widely varying skill levels	12	Significant
Pressure from students/employers for quick completion	11	High
Lack of industry-experienced trainers	10	Significant
Difficulty ensuring competency in complex skills	9	Critical
Insufficient equipment or facilities	9	High
Assessment rigour vs. pass rate expectations	9	Critical
Other challenges	8	-

Source: Cert II Survey, March 2026

4.4 Certificate II holders: Self-reported training preparation

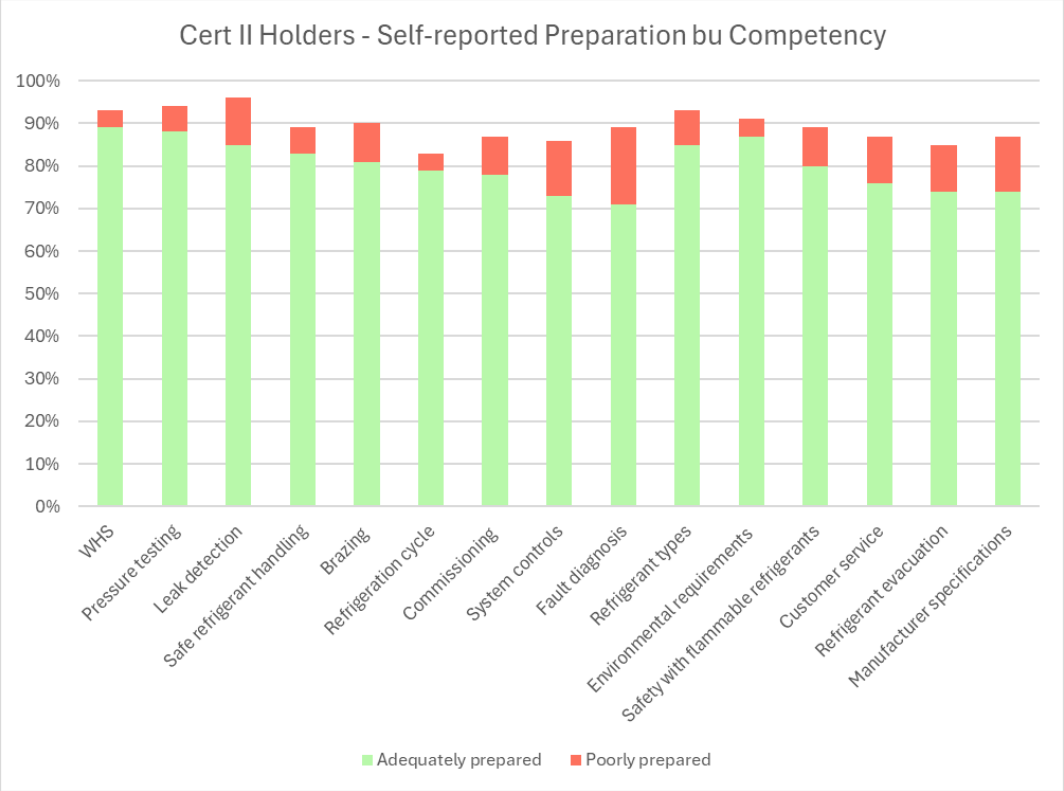
Among those who had personally completed the Certificate II (n=45–48), self-reported preparation ratings are notably more positive than employer and industry assessments of the same competency areas. This divergence suggests Certificate II holders may not fully appreciate the competency gaps that employers and Certificate III technicians observe. Fault diagnosis (within scope) is the weakest self-rated area (18% poorly prepared or not covered), followed by system controls and thermostats (13%), manufacturer specifications (13%), customer service (11%), leak detection (11%), and evacuation and charging (11%).

Table 6: Cert II Holders — Self-Reported Training Preparation

Competency Area	n	Well /Adequately Prepared	Poorly Prepared/ Not Covered
Workplace health & safety (WHS)	46	89%	4%
Pressure testing to Australian Standards	48	88%	6%
Refrigerant types and applications	48	85%	8%
Leak detection and testing	47	85%	11%
Safe refrigerant handling practices	48	83%	6%
Brazing and pipework to standards	47	81%	9%
Refrigeration cycle principles	47	79%	4%
Commissioning and documentation	46	78%	9%
Environmental and sustainability requirements	45	87%	4%
Safety with flammable refrigerants	45	80%	9%
Customer service and communication	46	76%	11%
Evacuation and charging procedures	47	74%	11%
Manufacturer specifications and requirements	46	74%	13%
System controls and thermostats	45	73%	13%
Fault diagnosis (within scope)	45	71%	18%

Source: Cert II Survey, March 2026

Figure 4: Cert II Holders — Self-Reported Training Preparation by Competency Area



Source: Cert II Survey, March 2026

4.5 Training content adequacy — Employer and industry view

When employers and industry stakeholders (n≈192) assessed whether the Certificate II includes adequate training for each of ten key competency areas, no area achieved above 49% "yes, adequate" ratings. In every technical area, combined "inadequate" and "somewhat adequate" ratings exceeded 50%. Refrigeration cycle fundamentals is the only competency where "inadequate" (39%) exceeds "yes, adequate" (31%) — a net gap of -8%.

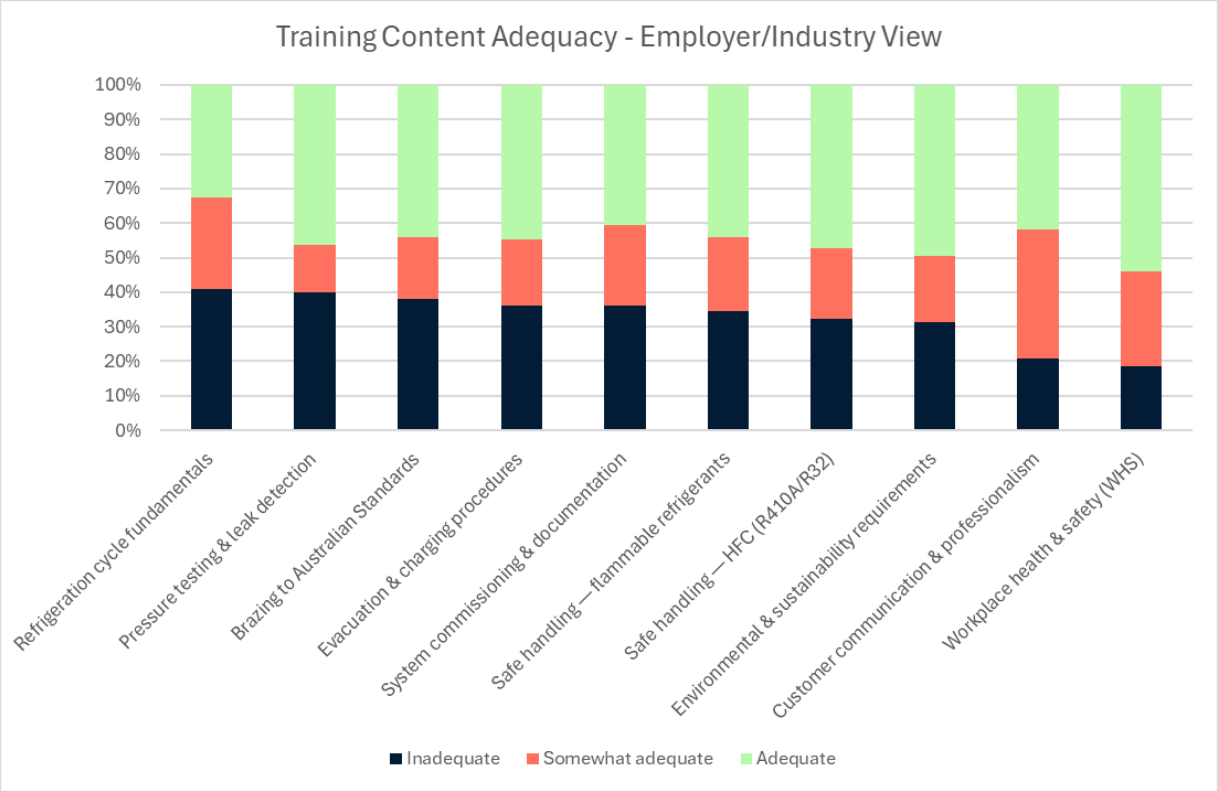
Table 7: Employer/Industry — Training Content Adequacy by Competency Area

Competency Area	n	Inadequate (%)	Somewhat Adequate (%)	Yes, Adequate (%)
Refrigeration cycle fundamentals	193	39%	25%	31%
Pressure testing & leak detection	192	38%	13%	44%
Brazing to Australian Standards	192	36%	17%	42%
Evacuation & charging procedures	193	34%	18%	42%

Competency Area	n	Inadequate (%)	Somewhat Adequate (%)	Yes, Adequate (%)
System commissioning & documentation	192	34%	22%	38%
Safe handling — flammable refrigerants	193	32%	20%	41%
Safe handling — HFC (R410A/R32)	195	30%	19%	44%
Environmental & sustainability requirements	193	29%	18%	46%
Customer communication & professionalism	193	19%	34%	38%
Workplace health & safety (WHS)	193	17%	25%	49%

Source: Cert II Survey, March 2026

Figure 5: Training Content Adequacy by Competency Area — Employer/Industry View



Source: Cert II Survey, March 2026

4.6 Employer view: Overall adequacy

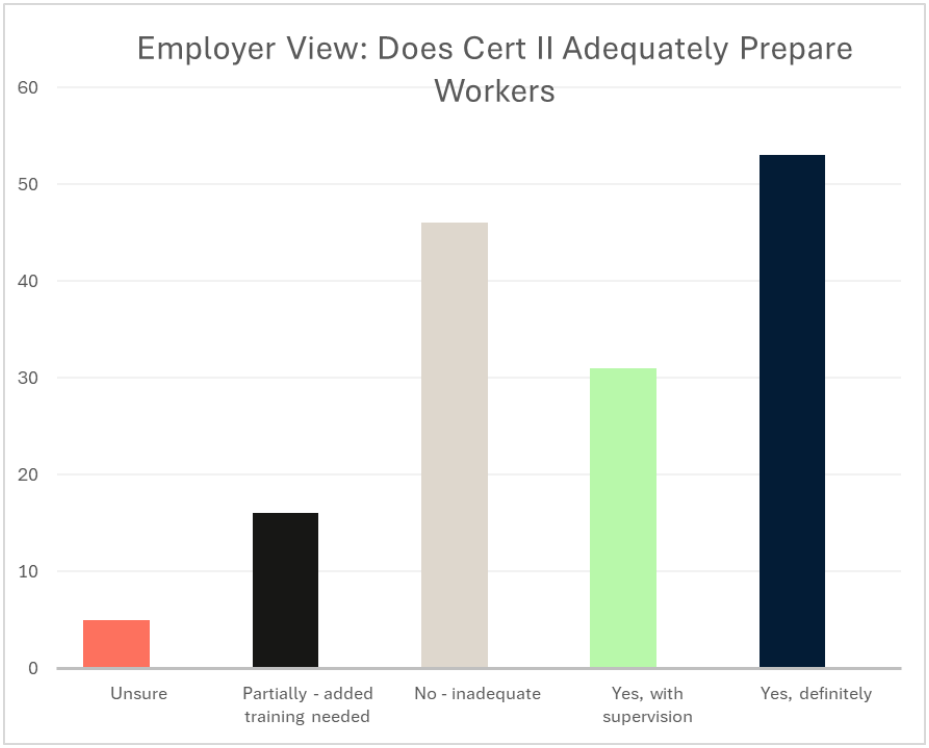
Employers (n=151) were asked directly whether the Certificate II adequately prepares workers to perform split system installations safely and competently. 35% say "yes, definitely", but when "no" (30%) and "partially" (11%) are combined, 41% of employers express clear reservations. A further 21% say "yes but only with supervision and support," meaning 62% of employers believe the qualification alone is insufficient for independent work.

Table 8: Employer View — Does Cert II Adequately Prepare Workers?

Employer Response	Count (n)	% of Employers (n=151)
Yes, definitely	53	35%
Yes, with adequate supervision and support	31	21%
Partially — significant additional training required	16	11%
No, the qualification is inadequate	46	30%
Unsure	5	3%

Source: Cert II Survey, March 2026

Figure 6: Employer View — Cert II Adequacy



Source: Cert II Survey, March 2026

"I won't hire a Cert 2 unless they have done at least 6 months working alongside a fully licensed refrigeration tech. The qualification teaches the minimum but not the experience needed to work safely on their own."

— Small Business Employer — Cert II Industry Use & Impact Survey, March 2026

4.7 Out-of-Scope work: Frequency and types

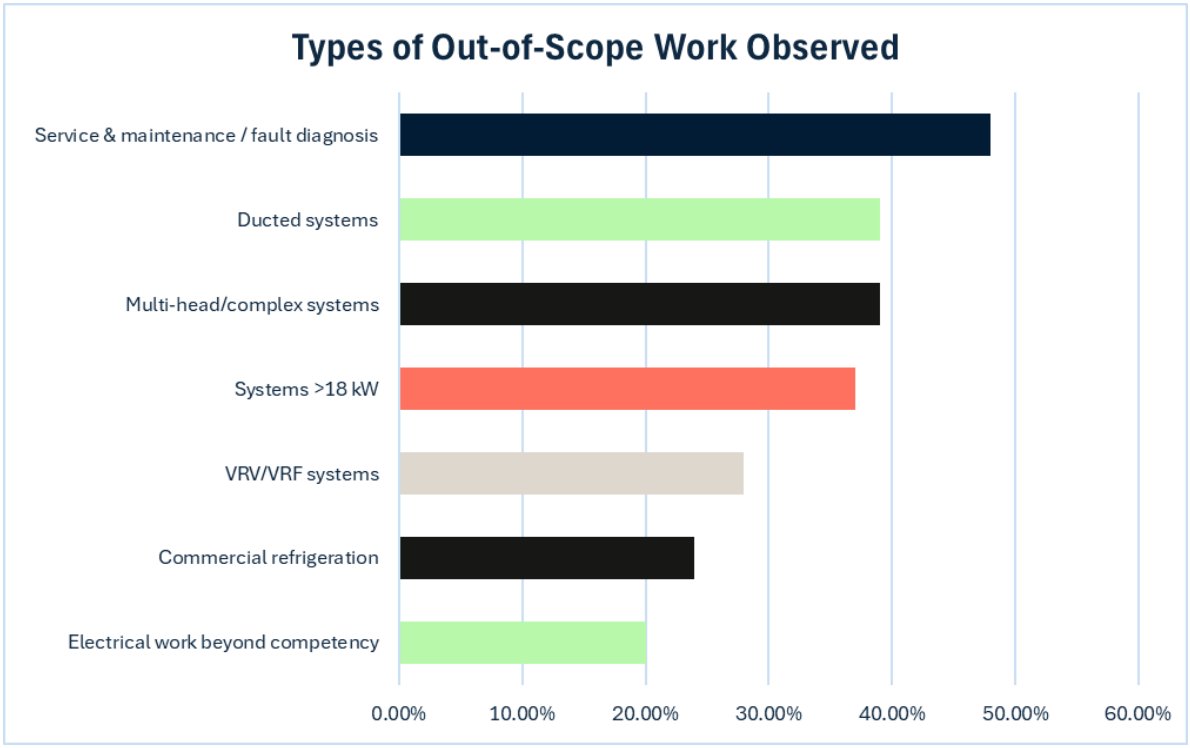
57% (n=117) of respondents believe the scope needs clarification; 35% (n=71) report out-of-scope work happens frequently; 17% (n=34) report it occurs occasionally. Only 31% (n=64) were not aware of this occurring. Seven distinct types of out-of-scope work were identified:

Table 9: Types of Out-of-Scope Work Observed

Type of Out-of-Scope Work	Count (n)	% of All Respondents (n=204)
Service, maintenance, fault diagnosis and repair	97	48%
Work on ducted systems beyond scope	80	39%
Work on multi-head or complex split systems	79	39%
Work on systems exceeding 18kW capacity	76	37%
Work on VRV/VRF systems	58	28%
Work on commercial refrigeration systems	49	24%
Electrical work beyond authorised competency	41	20%

Source: Cert II Survey, March 2026

Figure 7: Types of Out-of-Scope Work Observed



Source: Cert II Survey, March 2026

> *"A Cert two should really only be allowed to install wall splits up to 7–8kW in the residential industry only. Restrictions on ducted installs and the type of installs such as commercial grade work should be considered. The knowledge is just not there."*
>
> — HVACR Technician Respondent — Cert II Survey, March 2026

4.8 Safety incidents involving Certificate II holders

51 respondents (25%) are aware of multiple safety incidents; 28 (14%) are aware of one or two incidents. Combined, 79 respondents (39%) have witnessed or are aware of safety incidents involving Certificate II holders. Only 49% confirmed no awareness of such incidents. This represents a significant safety signal, particularly given the industry's ongoing transition to A2L and hydrocarbon refrigerants.

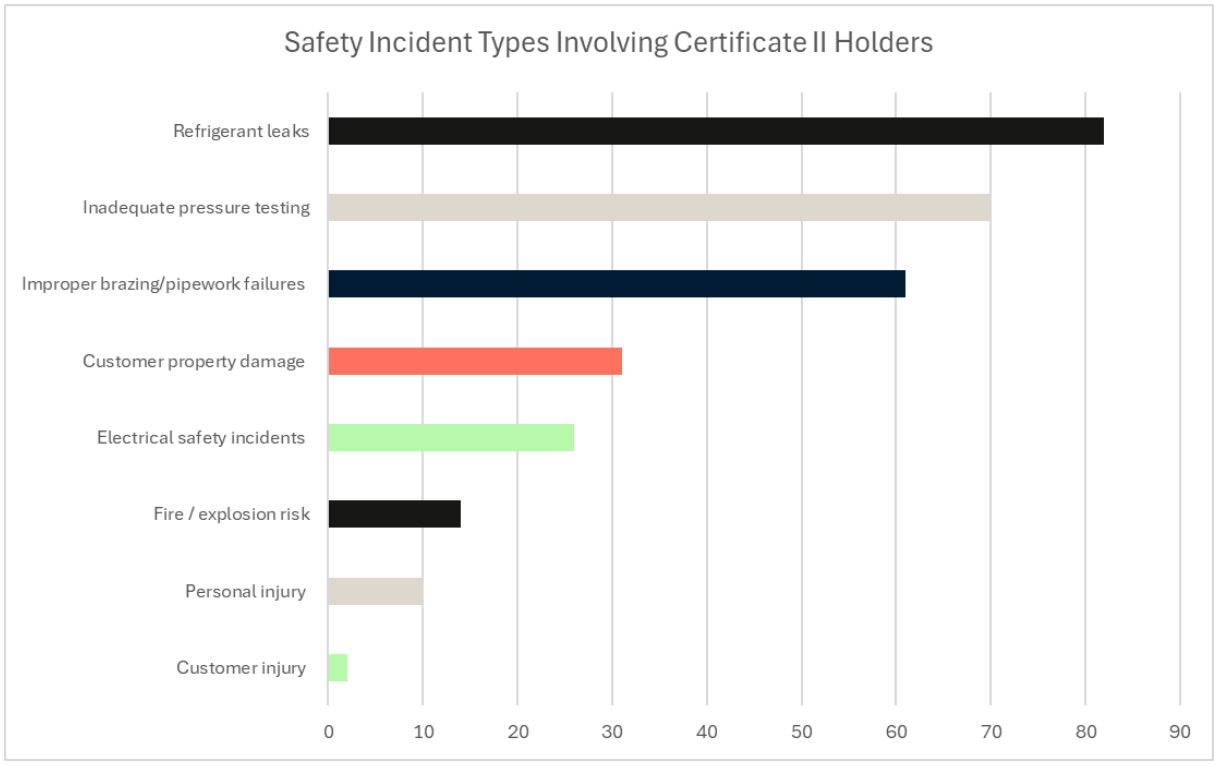
Table 10: Safety Incident Types

Type of Safety Incident	Count (n)	Severity Classification
Refrigerant leaks (including environmental release)	82	High — environmental and WHS
Inadequate pressure testing leading to system failure	70	Critical — structural failure risk

Type of Safety Incident	Count (n)	Severity Classification
Improper brazing/pipework failures	61	Critical — fire and leak risk
Customer property damage	31	Significant — liability risk
Electrical safety incidents	26	Critical — electrocution risk
Fire or explosion risk (flammable refrigerants)	14	Critical — A2L/HC transition risk
Personal injury	10	Critical — direct WHS harm
Customer injury	2	Critical — direct consumer harm

Source: Cert II Survey, March 2026

Figure 8: Safety Incident Types Involving Cert II Holders



Source: Cert II Survey, March 2026

"The whole of the Cert 2 should be removed before something bad happens with now flammable refrigerant. Contaminated systems, leaks galore... I'm 100% sure they just purge the systems and never use a vacuum pump, probably they do not even own one."

— Refrigeration Mechanic Respondent — Cert II Survey, March 2026

"We hear of horror stories on a weekly basis where poor quality work has let a customer down with a failed unit and more cost, usually due to refrigerant leakage, poor product selection and/or placement."

— Business Owner (Cert III qualified) — Cert II Survey, March 2026

4.9 Scope clarity by stakeholder group

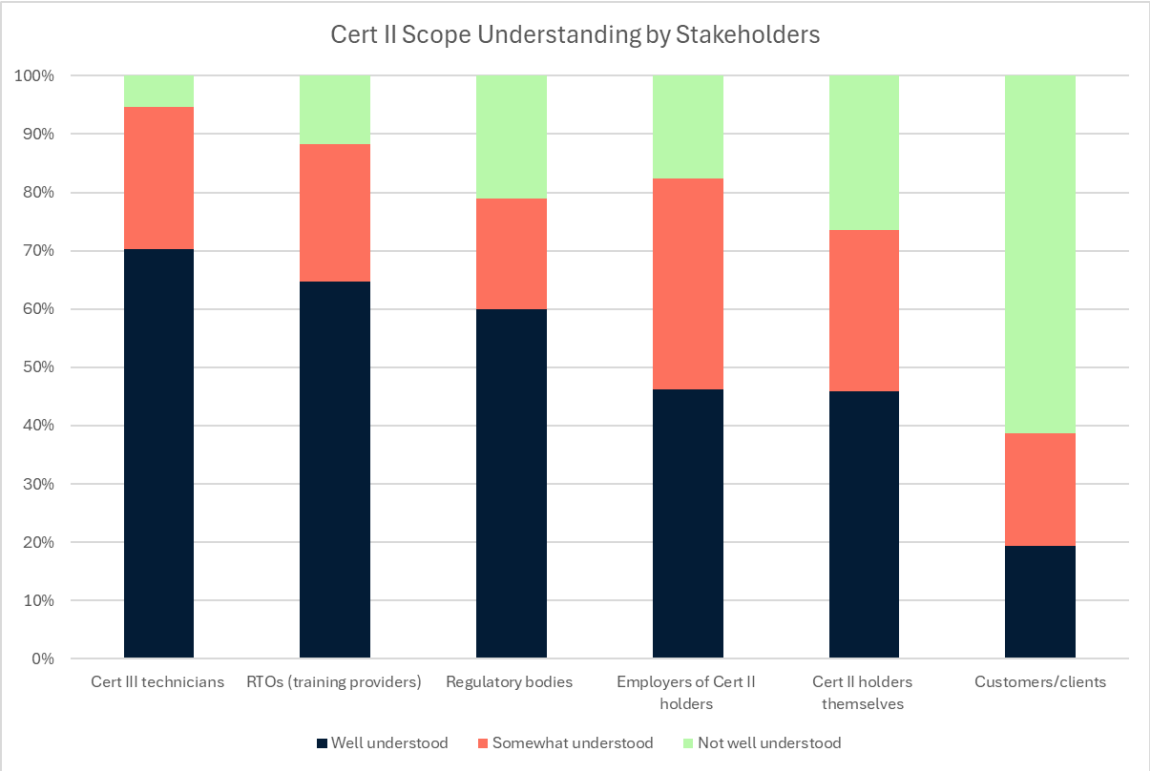
Customers/clients are the most disadvantaged group: 57% are rated as "not well understanding" the qualification's scope and limitations; only 18% "well understanding." Even Certificate II holders themselves show a 26% "not well understood" rating, consistent with documented out-of-scope work patterns. Certificate III technicians are best positioned (66% well understood), which explains why they most readily observe non-compliance.

Table 11: Cert II Scope Understanding by Stakeholder Group

Stakeholder Group	Well Understood (%)	Somewhat (%)	Not Well Understood (%)
Cert III technicians	66%	23%	5%
RTOs (training providers)	55%	20%	10%
Regulatory bodies	54%	17%	19%
Employers of Cert II holders	42%	33%	16%
Cert II holders themselves	45%	27%	26%
Customers/clients	18%	18%	57%

Source: Cert II Survey, March 2026

Figure 9: Cert II Scope Understanding by Stakeholder Group



Source: Cert II Survey, March 2026

4.10 Industry impact of the Certificate II

Respondents were asked to identify how the Certificate II has impacted the HVACR industry (multiple selections permitted). The results reveal a dual reality: positive outcomes exist but are ranked below the concerns by most respondents. The top four impacts are all negative.

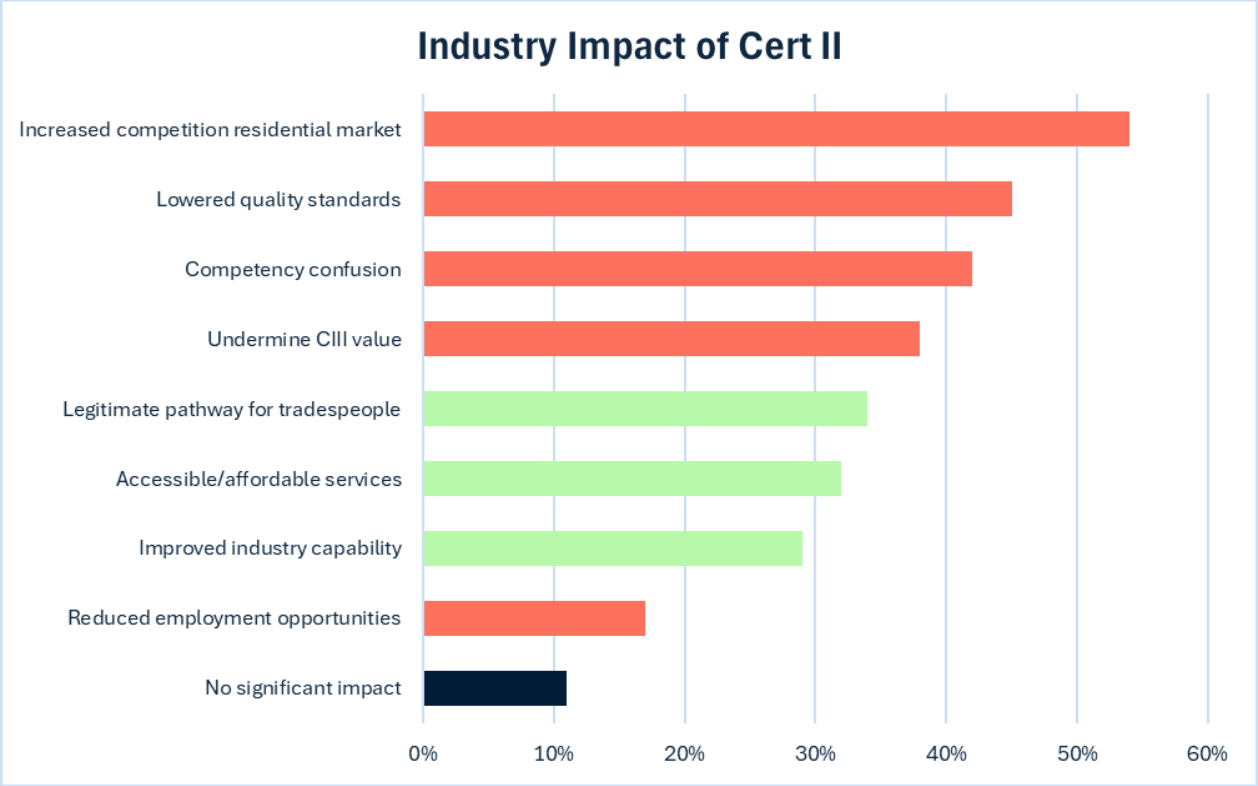
Table 12: Industry Impact of Cert II

Industry Impact	Count (n)	Type
Increased competition in the residential market	110 (54%)	Negative
Lowered quality standards in the industry	92 (45%)	Negative
Competency confusion for consumers and employers	85 (42%)	Negative
Undermined the value/status of Certificate III	77 (38%)	Negative
Provided a legitimate pathway for licensed tradespeople	70 (34%)	Positive
Made services more accessible/affordable for consumers	66 (32%)	Positive

Industry Impact	Count (n)	Type
Improved overall industry capacity	60 (29%)	Positive
Reduced employment opportunities for Cert III holders	34 (17%)	Negative
No significant impact	11 (5%)	Neutral

Source: Cert II Survey, March 2026

Figure 10: Industry Impact of Cert II



Source: Cert II Survey, March 2026

4.11 Recommended approach to the qualification

Respondents (n=197) were asked what approach should be taken with the Certificate II. Results show an almost equal three-way split, reflecting genuine industry diversity, but with a clear majority (65%) favouring change in some form.

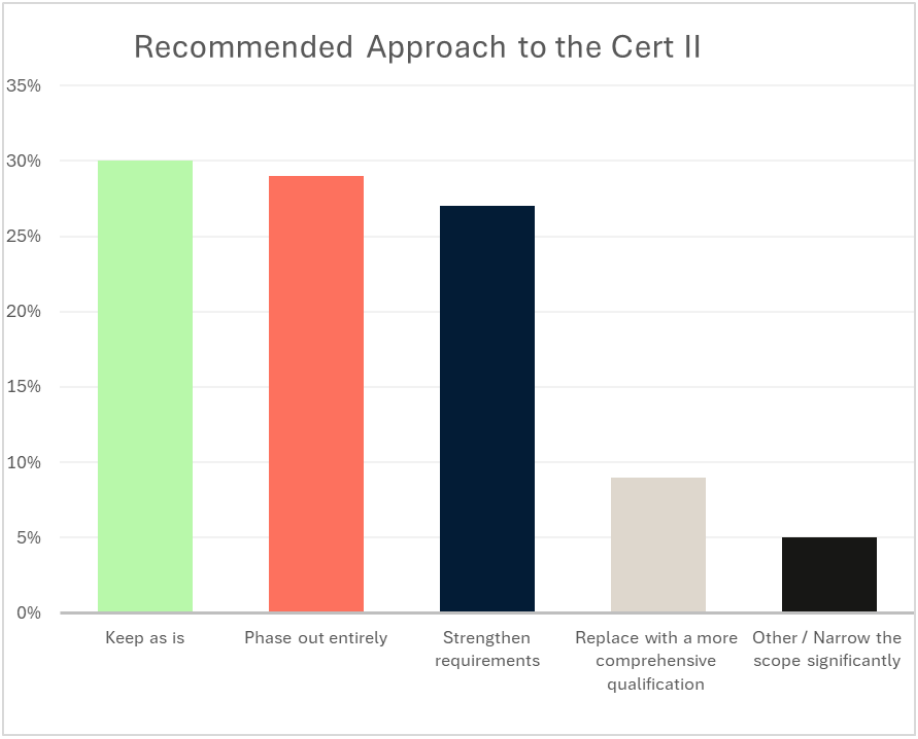
Table 13: Recommended Approach to UEE20120 Cert II

Recommended Approach	Count (n)	% (n=197)
Keep as is — no changes needed	59	30%

Recommended Approach	Count (n)	% (n=197)
Phase out entirely (Cert III as minimum standard)	57	29%
Strengthen requirements but keep existing qualification	54	27%
Replace with a more comprehensive qualification	18	9%
Other / Narrow the scope significantly	9	5%

Source: Cert II Survey, March 2026

Figure 11: Recommended Approach to UEE20120 Cert II



Source: Cert II Survey, March 2026

The single largest group (30%) supports keeping the qualification as is, reflecting genuine business value for electricians, plumbers, and gasfitters. However, 29% support full phase-out and 27% support substantial strengthening. When phase-out and "replace" options are combined, 38% favour removing the qualification in its current form. The near-equal three-way split confirms a carefully evidence-based and consultative approach is required, rather than a simple majority-rules decision.

4.12 Revision priorities

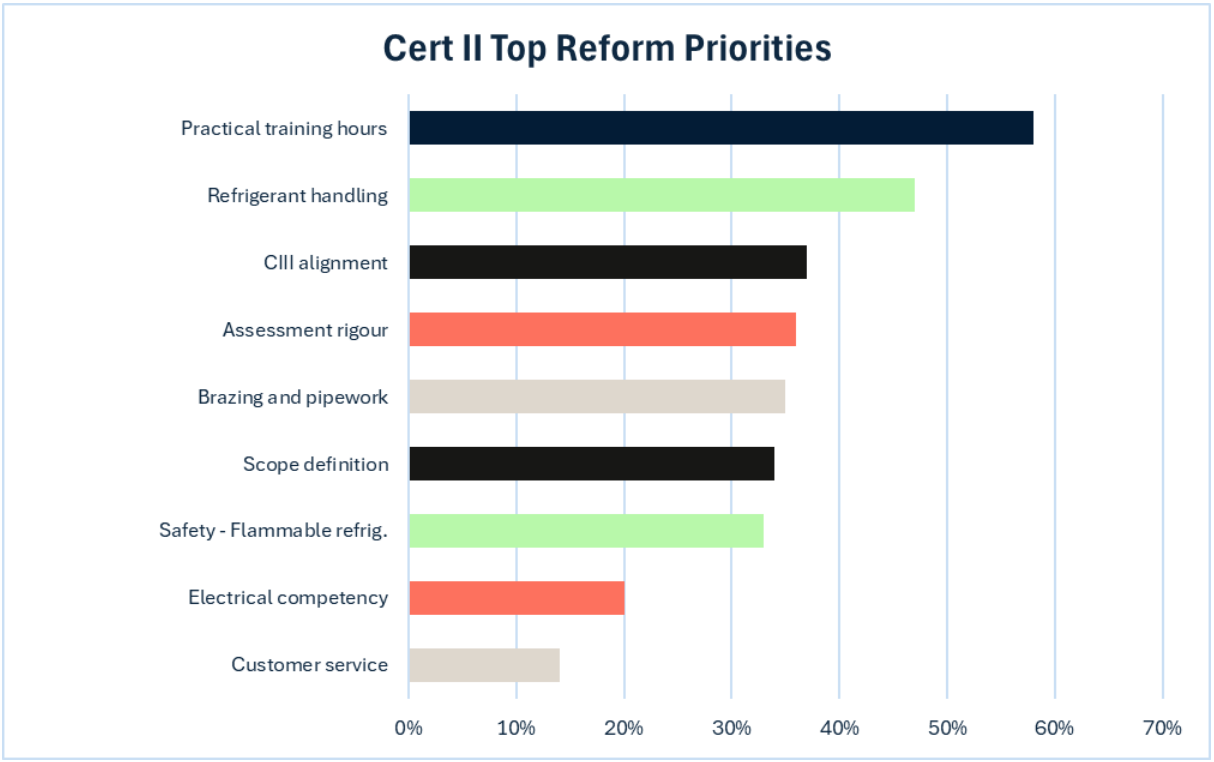
Those who supported substantial reform were asked to identify their top priorities (multiple selections, n=204). The results provide a clear hierarchy for any reform agenda, with practical training hours as the overwhelming priority for review.

Table 14: Revision Priorities if Cert II is Substantially Reformed

Revision Priority	Count (n)	% of All Respondents	PSO Reform Relevance
Increase minimum practical training hours	119	58%	Qualification design + minimum hours standard
Strengthen refrigerant handling competencies	95	47%	Unit of competency revision
Better pathway alignment with Certificate III	75	37%	Qualification packaging rules
Better assessment rigour and consistency	74	36%	Assessment requirements + ASQA oversight
Clearer scope definition and boundary-setting	70	34%	Qualification overview and scope statement
Improve brazing and pipework standards	72	35%	Unit of competency revision
Improve safety for flammable refrigerants	67	33%	New/revised unit for A2L and HCs
Strengthen electrical competency requirements	40	20%	Prerequisite or co-requisite units
Customer service and professionalism	28	14%	Elective or prerequisite consideration

Source: Cert II Survey, March 2026

Figure 12: Revision Priorities if Cert II is Substantially Reformed



Source: Cert II Survey, March 2026

5. Comparative analysis: Both surveys side-by-side

The table below presents a direct comparison of key themes across both survey instruments, demonstrating consistency of findings and where the targeted survey adds significant depth to the October 2025 recommendation.

Table 15: Comparative Analysis — Broader vs. Targeted Survey

Theme	Broader HVACR Survey (n=526)	Targeted Cert II Survey (n=204)	Alignment
Scope adequacy	Only 4.37% confirm adequate scope; 64.8% did not engage	57% say scope needs clarification; 35% report out-of-scope work frequently	Consistent ✓
Training duration	Short delivery noted in open-ended comments	70% completed in <4 weeks; 56% RTOs deliver ≤2 days practical	Deepened ✓

Theme	Broader HVACR Survey (n=526)	Targeted Cert II Survey (n=204)	Alignment
Safety concerns	Refrigerant safety cited as key concern in open comments	39% aware of safety incidents; 82 cite refrigerant leaks; 70 cite pressure testing failures	Consistent ✓
Out-of-scope work	Not directly measured	35% report frequently; 7 types identified; service & maintenance (48%) most common	New finding ✓
Qualification adequacy	Majority believe reform needed (no direct measure)	65% believe inadequate or needs change; 41% of employers have reservations	Consistent ✓
Top reform priority	Practical training and refrigerant competency raised	Practical hours #1 (119/58%); refrigerant handling #2 (95/47%)	Consistent ✓
Industry impact	Not directly measured	Dual: positive pathway value vs. negative quality/competition effects	New depth ✓
Stakeholder differentiation	General HVACR sector (n=526)	5 differentiated groups; customers show 57% scope unawareness	Deepened ✓

Sources: HVACR Survey Oct 2025; Cert II Survey March 2026

6. Stakeholder perspectives

The targeted survey captured distinct perspectives from five primary stakeholder groups. These perspectives are not monolithic, within each group there is diversity of opinion, but the dominant positions based on survey data are summarised below.

6.1 Employers and business owners

Employers (59% of respondents) are divided: 35% are definitively satisfied; 41% express concern. Key themes include the requirement for additional on-the-job training beyond the qualification, hesitancy to allow independent work, and documented exposure to substandard

installations. Many employers noted value in the qualification as a licensed service-expansion pathway but drew a clear distinction between supervised service expansion and an independent trade qualification.

> *"Cert 2 is a great idea for a limited scope add on for licensed tradies. But the problem is it needs to be much more rigorous before I trust someone with it to do work without checking it."*
>
> — Employer Respondent — Cert II Industry Use & Impact Survey, March 2026

6.2 Certificate III technicians

Certificate III technicians hold the most critical view, but their perspective is evidence-based. They cite observed skill gaps in holders they have worked alongside, scope confusion undermining professional standards, and erosion of employment opportunities in the residential sector. The scope clarity data confirms they have the sharpest understanding of the qualification's limits (66% well understood), which positions them to observe non-compliance most readily.

> *"The Cert 2 does not allow them to do service and maintenance but that's exactly what they're doing. And the public has no idea there's a difference. It devalues our trade and it's potentially dangerous when they start on systems they don't fully understand."*
>
> — Cert III Refrigeration & Air Conditioning Mechanic — Cert II Survey, March 2026

6.3 Certificate II holders

Certificate II holders generally view the qualification positively as a business enabler. Self-reported preparation ratings are consistently higher than external assessments, a divergence that warrants further investigation. Many expressed support for keeping the qualification but acknowledged the need for more practical training. Several expressed frustrations with delivery quality (too short, too theoretical) rather than with the concept itself.

6.4 Registered Training Organisations (RTOs)

RTOs identify structural constraints: limited practical time (14 RTOs), market pressure for quick completion (11 RTOs), and assessment rigour vs. pass rate tensions (9 RTOs). Training package reform mandating minimum practical hours would provide RTOs with a regulatory basis to resist commercial pressure for compressed delivery, currently the primary driver of the training quality gap.

6.5 Customers and end product users

Customers are the most disadvantaged group: 57% do not understand the qualification's scope and limitations. They cannot make informed hiring decisions, identify out-of-scope work, or effectively limit the scope of work performed in their homes. This finding supports both public information campaigns and clearer point-of-service disclosure requirements for Certificate II practitioners.

7. Discussion

7.1 The core tension

The data reveals a fundamental tension at the heart of the Certificate II. The qualification serves a real and valued function, providing licensed electricians and plumbers with a legitimate, cost-effective pathway to expand their service offering into the growing residential heat pump and split system market. This positive function is supported by 30% of respondents who believe no changes are needed, and the 34% who identify it as providing a "legitimate pathway for licensed tradespeople."

At the same time, the qualification as currently designed and delivered fails to ensure the competency and safety outcomes that the industry and the public have a right to expect. The evidence is unambiguous: 56% of RTOs deliver two days or fewer of practical training; 39% of respondents are aware of safety incidents; 48% observe out-of-scope service and maintenance work; and only 35% of employers are definitively satisfied the qualification adequately prepares workers. These are not marginal concerns; they represent a systemic failure of quality assurance.

7.2 The A2L and Hydrocarbon transition urgency

The 14 respondents who identified fire or explosion risk from flammable refrigerants as a safety incident type signal a rapidly escalating risk. As the industry transitions from R410A to R32 (A2L class) and towards hydrocarbon refrigerants, the consequences of inadequate refrigeration cycle knowledge, brazing competency, and safe handling practices become significantly more severe. The inadequacy of current training in refrigeration cycle fundamentals (39% rate as inadequate) is not a cosmetic concern in this context; it is a safety-critical gap that requires urgent attention in any qualification reform.

7.3 Market forces vs. Competency assurance

The RTO data exposes a market failure: commercial pressure for quick, cheap course completion is overriding the competency assurance function of the qualification. 11 RTOs acknowledge pressure from students and employers for quick completion; 9 RTOs acknowledge assessment rigour conflicts with pass rate expectations. Without minimum hour requirements embedded in the qualification itself, these forces will continue to undermine training quality regardless of how units of competency are revised.

7.4 The Self-Assessment Gap

The divergence between Certificate II holders' self-reported preparation ratings and employer/industry assessments of the same competency areas is a significant finding. Certificate II holders consistently rate themselves as better prepared than their employers rate them. This gap, particularly on fault diagnosis (18% self-report poorly prepared vs. employer concerns about out-of-scope repair work), suggests that some holders may lack the metacognitive awareness of their own competency boundaries. This has implications for how the qualification is structured: self-assessment alone is an insufficient governance mechanism; employer verification and supervised practice periods are needed.

7.5 Post-Trade Qualification pathways: Would a Certificate IV be supported?

A recurring theme across both surveys is industry appetite for better post-trade pathway options, particularly for experienced Certificate III technicians seeking to progress into supervisory, specialist, or advanced technical roles. The October 2025 survey identified an explicit recommendation to "revise post-trade qualification pathways," driven by widespread dissatisfaction with the existing Diploma of Air Conditioning and Refrigeration Engineering (UEE51225). Respondents described the Diploma as underutilised, overly theoretical, poorly accessible, and delivering limited tangible licensing or career progression outcomes.

A Certificate IV positioned above the Certificate III, not the Certificate II, has merit when considered against the data. No structured supervisory or specialist pathway currently exists between the Certificate III trade qualification and the Diploma. Respondents noted absent pathways into supervisory and management roles post-apprenticeship, and the lack of any continuous professional development (CPD) framework means skills currency is left entirely to the individual. A well-designed Certificate IV addressing team leadership and supervision, advanced systems (VRV/VRF, CO_2, BMS integration, heat pump technology), expanded electrical competency, and energy management would address documented skill gaps that neither the Certificate III nor the Diploma currently covers effectively.

However, the data does not support a Certificate IV positioned directly from the current Certificate II as a pathway for non-Certificate III holders. 65% of respondents believe the Certificate II is inadequate or needs change; 29% support phasing it out entirely; and 45% of Certificate III technicians already believe the Certificate II undermines their trade status. A Certificate IV pathway directly from the Certificate II would risk legitimising and extending a qualification most of the industry wants reformed foremost and would inflame existing tensions with the Certificate III workforce. The sequencing is critical: Certificate II reform must precede any consideration of building a new qualification level above it.

Table 16: Where a Certificate IV Post-Trade Would and Would Not Be Supported by the Data

Scenario	Evidence from Survey Data	Verdict
Cert IV above Cert III (supervisory/specialist pathway)	No post-Cert III pathway exists; Diploma underused; CPD absent; supervisory role transition flagged as gap; VRV/VRF, CO_2, BMS skill gaps documented	Supported ✓
Cert IV above Cert III (advanced systems specialist)	Electronic controls (24.3%), variable speed controls (23%), commissioning (21.5%), energy efficiency (19.5%) all flagged as further skill acquisition areas for Cert III holders	Supported ✓
Cert IV above Cert III (expanded electrical scope)	Restricted electrical licence seen as too narrow; electricians cross-skill quickly with shorter courses; demand for broader electrical competency from experienced Cert III technicians	Supported ✓

Scenario	Evidence from Survey Data	Verdict
Cert IV above Cert II (advanced add-on for plumbers/electricians)	65% say Cert II inadequate or needs change; 29% support phase-out; 45% of Cert III holders feel undermined; Cert II reform must precede new level above it	Not supported ✗
Cert IV above Cert II (for non-trade holders via RPL)	RPL pathway concerns documented; non-trade holders seeking RPL flagged as a delivery challenge for RTOs; competency gaps most pronounced in this cohort	Not supported ✗
Cert IV replacing Cert II (comprehensive installation credential)	Some respondents request a "more comprehensive qualification requiring longer training", but 30% want no change; industry three-way split means no consensus for a replacement	Contested — further consultation needed
Skill sets as alternative (modular post-trade upskilling)	Diploma consultation found respondents "favoured skill sets as more practical post-trade upskilling options"; shorter, accessible, licensing-linked; faster to update for A2L/HC transition	Strongly supported ✓
CPD framework anchored to a Cert IV or skill sets	No CPD system exists; currency left to individual; "if there was CPD there would be a need to maintain skills with emerging technologies and therefore improve industry standards"	Supported ✓

Source: Analysis of HVACR Industry Sector Survey October 2025 and Cert II Industry Use & Impact Survey March

7.6 Skill Set vs. Qualification: The right vehicle for Electricians, Plumbers and Gas Fitters

The question of whether the existing Certificate II, or any future credential for this cohort, should be a qualification or a skill set is not merely a structural one. It goes to the heart of what this credential is for. The survey data is clear on this point: for electricians, plumbers, and gas fitters, the Certificate II is not a base trade credential. It is a scope extension, a mechanism for adding a restricted refrigerant handling licence to an existing trade licence. The Plumbing and Fire Protection and PPTEU submissions to the targeted survey stated this explicitly: "*It is a key pathway qualification for plumbers and gasfitters seeking to upskill to be able to safely and competently work on both air conditioning and heat pump systems up to 18kW... for Mechanical Services trained practitioners seeking to add split systems to their skills and licence scope.*"

That framing, add to their licence scope, is the functional definition of a skill set within the AQF, not a qualification. Skill sets exist precisely for situations where a person already holds a relevant

credential and needs formal recognition of competency in a defined, bounded area of work. The ARC restricted refrigerant handling licence is a specific, licensing-linked outcome, the exact scenario the AQF skill set structure is designed to support. A qualification, by contrast, signals a standalone entry credential for an occupational field. This cohort already has that: they are fully licensed tradespeople.

> *"Create a stronger training program that's not just a 1-day course. For electricians that have been doing split system installs, ducted installs and plenty of maintenance work... they have the experience and skill but don't need to do a full Cert III. Or a shorter pathway to a Cert III with some restrictions so they can adequately and legally extend their work to ducted installs, maintenance etc — more than just installing split systems."*
>
> — Electrical Contractor and Employer — Cert II Industry Use & Impact Survey, March 2026

Five structural factors from the data support a skill set design over a qualification for this cohort:

1. The audience already holds a trade. Issuing a Certificate II qualification to a licensed electrician or plumber implies they are gaining a base credential, which misrepresents the nature of the training and creates qualification level confusion in the market. A skill set is honest about what is being gained.

2. The licensing outcome is specific and bounded. The ARC restricted refrigerant handling licence covers defined work types up to 18kW. A skill set can be precisely mapped to that licence scope. A qualification carries broader connotations of comprehensive trade competency that this training does not and should not imply.

3. Industry prefers accessible, modular upskilling. The Diploma consultation found respondents explicitly preferred "shorter skill sets as more practical post-trade upskilling options." This preference is consistent with how licensed tradespeople approach CPD throughout their careers, that being targeted, practical, and licensing relevant.

4. A trade prerequisite can be built in. A skill set can mandate a licensed electrician, plumber or gas fitter prerequisite, allowing training content to build directly on existing trade knowledge rather than teaching foundations already covered in the base trade. This is a key quality mechanism currently absent from the Certificate II, where mixed cohorts (licensed trades and non-trades) create the competency inconsistency that employers and Certificate III technicians observe.

5. Faster to update for the A2L/HC transition. Skill sets within an existing qualification (e.g., within UEE) can be revised and updated more rapidly than standalone qualifications. As the industry transitions to R32 and hydrocarbon refrigerants, the ability to quickly update refrigerant handling and safety competency requirements is a safety-critical consideration, not an administrative one.

There is one scenario where a qualification remains the more appropriate vehicle: if PSO and the SME Group determine that the scope of permitted work should be substantially expanded beyond the current 18kW single-head residential limit, for example, to include multi-head systems, ducted residential, or light commercial work. At that point, the breadth and complexity of competency required may justify a qualification. One respondent expressed this directly: "*Please consider an option to extend qualification or permissions to work on repairs, maintenance etc, ducted, maintenance etc, after say a 4-year period of experience and an on-site assessment by*

an auditor on the job to show we are experienced and competent." This is a recognition of prior learning (RPL) model embedded in a qualification, a legitimate design option if the SME Group endorses a broader scope.

> *"This pathway is important for Mechanical Services trained practitioners seeking to add split systems air conditioning to their skills and licence scope, and for water supply plumbers to add installation of heat pump hot water systems to their scope of work. It is important that the qualification remains current and relevant and we support the review in that context."*
>
> — Plumbing Industry Climate Action Centre (PICAC) / PPTEU Submission — Cert II Survey, March 2026

PSO Consideration: Based on the evidence from both surveys, the most defensible design for the current scope of permitted work is a skill set within the UEE Training Package, with:

a) a mandatory licensed trade prerequisite;

b) minimum practical training hours embedded as a requirement;

c) strengthened refrigerant handling, brazing, and pressure testing competency;

d) a differentiated delivery pathway for licensed tradespeople versus other cohorts; and

e) direct alignment to the ARC restricted refrigerant handling licence outcome.

A full qualification should only be considered if the SME Group endorses a broader scope of permitted work. Either way, the current Certificate II as a full standalone qualification, with no trade prerequisite, no minimum hours, and open to any cohort, is not fit for purpose and should not continue in its current form.

7.7 Certificate IV vs. Skill Set: A comparative analysis for Licensed Plumbers, Gas Fitters and Electricians

Section 7.6 established why the functional purpose of any credential for licensed plumbers, gas fitters and electricians aligns more closely with a skill set than a qualification. This section conducts a direct comparative analysis of the two vehicles across the dimensions that matter most to this cohort, drawing on both survey datasets. The analysis is structured to support the HVACR SME Group and Technical Committee in evaluating the most appropriate training product design when the Certificate II is revised or replaced.

7.7.1 Understanding the cohort

The cohort seeking to add split system air conditioning and heat pump work to their existing trade scope is not homogeneous, but it shares one defining characteristic: every member already holds a nationally recognised trade qualification and a state-issued occupational licence. Electricians hold an Electrical Worker Licence. Plumbers and gas fitters hold a Plumbing Licence. Their trade training covered safety, compliance, tools and equipment, and regulated work practices. The Certificate II does not teach them to be tradespersons, they already are. What they need is specific, bounded competency in refrigerant handling, pressure testing, brazing to Australian Standards, and the refrigeration cycle principles that underpin safe split system installation and decommissioning.

The targeted survey confirms this: the primary motivation for completing the Certificate II among this cohort is to expand service offering and obtain the ARC Restricted Refrigerant Handling Licence, not to enter a new trade or qualify for employment. Multiple submissions from PPTEU, PICAC, and individual plumber and electrician respondents explicitly framed the credential as an "add-on to licence scope," not a new base qualification. This distinction is fundamental to the product design question.

7.7.2 What a Certificate IV would offer vs. What the cohort needs

A Certificate IV in the AQF is defined as a qualification that develops "a broad range of cognitive, technical and communication skills to select and apply a range of methods, tools, materials and information." It is positioned as post-trade upskilling or paraprofessional-level credential, implying a depth and breadth of knowledge that goes well beyond the specific, bounded scope of residential split system installation. For this cohort, a Certificate IV would carry structural mismatches across five key dimensions:

1. **Breadth requirement**: A Certificate IV requires a broad range of competencies across an occupational field. Split system installation up to 18kW for a licensed electrician or plumber is a narrow, defined scope, not a broad occupational field.

2. **Depth of underpinning knowledge:** Certificate IV implies deeper theoretical knowledge than is required for the defined work scope. For a plumber adding heat pump hot water installation to their licence, the refrigeration cycle theory required is foundational, not advanced. A Certificate IV framing would require unnecessary content that increases training burden without improving safety outcomes.

3. **Duration and cost:** A Certificate IV carries a longer minimum training commitment than the work scope requires, increasing cost and time barriers for a cohort that already holds a trade. The survey data shows 56% of RTOs currently deliver ≤2 days practical, an indication of how market pressure responds to perceived over-engineering of training requirements.

4. **Qualification level vs. licence scope:** A Certificate IV for a licensed plumber doing heat pump hot water installation would create a qualification level mismatch, the holder's existing Certificate III plumbing qualification may sit at the same or adjacent AQF level, creating confusion about credential hierarchy and recognition.

5. **Industry recognition and value:** The Diploma, which sits above Certificate IV, is already underutilised because the industry does not translate higher qualification levels into licensing outcomes, pay grades, or employment advantages for this cohort. A Certificate IV risks the same uptake failure.

7.7.3 What a Skill Set would offer

Within the AQF and Training Package Organising Framework (TPOF), a skill set is defined as a single unit of competency or a combination of units of competency that link to a licensing or regulatory requirement, or a defined industry need. This is a precise description of the credential gap for licensed plumbers, gas fitters and electricians. A skill set within the UEE training package could be structured to deliver exactly what the industry needs, and nothing more, without the structural overhead of a full qualification.

Critically, a skill set can include a prerequisite condition, allowing PSO and the SME Group to mandate that holders must already hold a licensed trade qualification. This single design feature resolves the most fundamental quality problem with the current Certificate II: the absence of a trade prerequisite means the qualification is simultaneously trying to serve licensed tradespeople who already understand electrical safety, pipe work, and compliance obligations, AND individuals with no trade background whatsoever. These two cohorts require materially different training content, duration, and supervision arrangements. A skill set for licensed tradespeople only removes this tension entirely.

> *"Cert 2 is a great idea for a limited scope add-on for licensed tradies. But the problem is it needs to be much more rigorous before I trust someone with it to do work without checking it."*
>
> — Employer Respondent — Cert II Industry Use & Impact Survey, March 2026

7.7.4 Direct comparison: Certificate IV vs. Skill Set for this cohort

The following table provides a structured comparison of the two product types across the dimensions most relevant to licensed plumbers, gas fitters and electricians, drawing directly on survey evidence.

Table 17: Certificate IV vs. Skill Set — Comparative Analysis for Licensed Trade Cohort

Dimension	Certificate IV	Skill Set	Evidence from Survey Data
AQF purpose	Broad occupational knowledge and skills; post-trade or paraprofessional credential	Specific licensing/regulatory or defined industry need; recognises bounded competency	ARC restricted licence is specific and bounded, exact fit for skill set definition
Trade prerequisite	Can be included but not standard practice; adds complexity to packaging rules	Can explicitly require licensed electrician, plumber or gas fitter as prerequisite	62% of employers say Cert II alone insufficient; mixed cohort delivery is root cause of inconsistency
Training duration	Longer minimum commitment; broader content requirement	Matched exactly to scope of work; minimum hours tied to competency, not AQF level	58% cite practical hours as #1 priority; but 56% of RTOs already delivering ≤2 days, market resists over-engineering
Content scope	Must cover broad occupational range; risks unnecessary	Units selected precisely for the work: refrigerant handling, brazing, pressure	Top revision priorities: practical hours, refrigerant handling, brazing, pressure

Dimension	Certificate IV	Skill Set	Evidence from Survey Data
	content for narrow work scope	testing, commissioning	testing — all specific, bounded competencies
Licensing linkage	Qualification used as evidence of competency for licensing; indirect linkage	Designed explicitly for licensing linkage; can map 1:1 to ARC restricted licence requirements	ARC restricted refrigerant handling licence is the primary credential outcome sought by this cohort
Delivery flexibility	Must meet all packaging and assessment requirements for a full qualification	More flexible delivery; can be structured as intensive block with mandatory practical minimums	Multiple delivery modes noted; block delivery over several weeks rated as best for practical competency
RPL/Credit Transfer	Standard RPL provisions apply; broad credit transfer options	Can include RPL for prior experience; could recognise 4+ years of supervised installation work	One respondent: "Consider an option to extend permissions after 4-year experience period with on-site assessment by an auditor"
Market confusion risk	High — Cert IV above Cert III (plumbing/electrical) creates credential hierarchy confusion	Low — skill set clearly signals "add-on to existing licence" not a new trade credential	42% already cite "competency confusion for consumers and employers" as a negative impact of current Cert II
Uptake likelihood	Lower — Diploma precedent shows higher qualifications have poor uptake for this cohort	Higher — modular, accessible, licensing-linked; matches how this cohort approaches CPD	Diploma described as underutilised; respondents favoured "shorter skill sets as more practical post-trade upskilling options"
Update agility (A2L/HFC transition)	Slower — full qualification revision	Faster — units within existing qualification can be updated via	14 respondents cite fire/explosion risk from flammable

Dimension	Certificate IV	Skill Set	Evidence from Survey Data
	requires longer governance process	unit revision, not full qualification review	refrigerants; A2L transition underway nationally — update speed is safety-critical
Industry tension risk	Moderate to High — Cert IV above Cert II could inflame tensions with Cert III workforce	Low — skill set is clearly not competing with Cert III status	45% of Cert III technicians believe Cert II undermines trade status; 38% cite reduced employment opportunities
Supervision/Probation scope	Can include workplace evidence requirements but not mandatory supervision periods	Can be designed with mandatory supervised work period as a post-completion requirement	62% of employers believe the qualification alone insufficient for independent work; structured supervision period rated #1 additional requirement
PSO development timeframe	Longer — new qualification requires full TPOF governance process	Shorter — skill set development within existing UEE package is a more agile process	A2L transition and ongoing safety incidents create urgency for faster reform pathway
Overall fit for cohort	Moderate — structurally misaligned with the narrow, licensing-linked scope of work; risk of Diploma-style uptake failure	Strong — aligns with AQF intent, licensing purpose, cohort characteristics, and industry preference for modular upskilling	Consistent across both surveys: cohort needs bounded competency recognition, not a new occupational credential

Source: Analysis of HVACR Industry Sector Survey October 2025

7.7.5 The case for differentiated cohort design

A critical finding from the survey data that bears directly on this analysis is the problem of mixed-cohort delivery. The current Certificate II is delivered to three distinct groups simultaneously: licensed electricians, licensed plumbers and gas fitters, and individuals with no prior trade qualification (often seeking RPL). Each group brings fundamentally different prior knowledge, different risk profiles, and different licensing outcomes. Delivering a single qualification to all

three groups creates an impossible training design problem, the content must either be pitched too low for experienced tradespeople (creating disengagement and market pressure for shorter delivery) or too high for non-trades participants (creating competency gaps).

A skill set designed specifically for licensed tradespeople resolves this problem structurally. By mandating an existing trade licence as a prerequisite, the training content can assume understanding of safe work practices and regulatory compliance; proficiency with hand and power tools; experience reading technical documentation and manufacturer specifications; familiarity with pressure systems (for plumbers) or electrical safety (for electricians); and an existing culture of licensed, inspected, accountable work. The training can then focus exclusively on the delta, the specific refrigerant handling, brazing, refrigeration cycle, and commissioning competencies that are genuinely new to this cohort.

> *"A cert two should really only be allowed to be for licensed tradies. Restrictions on the types of installs such as commercial grade work should be considered. The knowledge is just not there for someone without a trade background."*
>
> — HVACR Technician Respondent — Cert II Survey, March 2026

The survey data supports three differentiated pathways, each with a distinct product design:

Table 18: Recommended Differentiated Pathway Design by Cohort

Cohort	Prerequisite	Recommended Product	Scope of Work	Licensing Outcome
Licensed electricians	Electrical Worker Licence	UEE Skill Set — Split System Installation and Refrigerant Handling (Licensed Electricians)	Residential split systems to 18kW; heat pump hot water; refrigerant handling within scope	ARC Restricted Refrigerant Handling Licence (split systems)
Licensed plumbers / gas fitters	Plumbing Licence (or Gas Fitting Licence)	UEE Skill Set — Split System and Heat Pump Installation (Licensed Plumbers/Gas Fitters)	Residential split systems to 18kW; heat pump hot water systems; refrigerant handling within scope	ARC Restricted Refrigerant Handling Licence (split systems + heat pump)
Non-trade holders / RPL pathway	No trade prerequisite — different product needed	Revised UEE20120 Certificate II (strengthened) OR entry into Cert III	Residential split systems to 18kW; no independent work — supervised period required	ARC Restricted Refrigerant Handling Licence (split systems only; with supervision condition)

Cohort	Prerequisite	Recommended Product	Scope of Work	Licensing Outcome
		apprenticeship pathway		
Cert II holders seeking progression	Cert II + documented supervised work experience	Cert III articulation via RPL and credit transfer — not a new intermediate qualification	Full Cert III scope	Full ARC Refrigerant Handling Licence (unrestricted class)

Source: Analysis of both surveys. Note: differentiated pathway design is a PSO recommendation for SME Group consideration — final product design subject to TPOF governance process.

7.7.6 Proposed Skill Set Design Principles

If the SME Group endorses a skill set vehicle for licensed plumbers, gas fitters and electricians, the following design principles, drawn directly from survey evidence, should guide its development:

1. **Trade licence prerequisite — mandatory.** The skill set must require evidence of a current state-issued occupational licence (electrical, plumbing, or gas fitting) as an enrolment prerequisite. This is the single most impactful quality mechanism available. 62% of employers who require supervision and additional support for Certificate II holders are, in large part, compensating for the absence of this prerequisite.

2. **Minimum practical training hours — embedded.** 58% of respondents identify increased practical training hours as the top reform priority. Minimum hours should be specified in the skill set requirements, not left to RTO discretion. Based on the survey data, a minimum of 40–60 hours of hands-on practical training (5–7 full days) is appropriate for a licensed trade cohort; this is less than the 80 hours recommended for non-trade holders given the stronger foundational base.

3. **Core units: non-negotiable competency development.** The following competency areas must be addressed as core, not elective, based on the inadequacy ratings from employers (Table 7): refrigeration cycle fundamentals (39% inadequate); pressure testing and leak detection (38% inadequate); brazing to Australian Standards (36% inadequate); evacuation and charging (34% inadequate); and safe handling of flammable refrigerants (A2L/HC specific unit required given transition underway).

4. **A2L and hydrocarbon safety — dedicated unit**. 14 respondents cite fire or explosion risk from flammable refrigerants as a safety incident type. As the industry transitions to R32 (A2L) and hydrocarbon refrigerants, a dedicated unit covering safe handling, leak detection, risk assessment, and evacuation procedures for flammable refrigerants is non-negotiable. This unit should be updatable independently of the broader skill set to allow rapid response to regulatory changes.

5. **Assessment rigour — standardised practical assessment.** 36% of respondents cite improved assessment rigour as a reform priority. Practical assessment tasks should be standardised, including brazing a joint to specification, pressure testing a system to Australian Standards, performing an evacuation and charge procedure, and demonstrating refrigerant leak detection, and conducted by assessors with current industry experience in refrigeration and air conditioning work.

6. **Scope statement — explicit and enforceable.** 57% believe the current scope needs clarification. The skill set must include an unambiguous scope statement describing what the holder is, and is not, authorised to do. This statement should be reproduced on any certificate or statement of attainment issued by an RTO and should align precisely with the conditions of the ARC Restricted Refrigerant Handling Licence.

7. **Mandatory supervised period — post-completion.** 62% of employers believe the qualification alone is insufficient for independent work. The skill set should include a mandatory supervised work period of at least 20 installation jobs (or equivalent hours) completed under the supervision of a Certificate III qualified technician before independent work is permitted. This reflects how many employers already operate in practice, but currently without formal recognition or requirement.

7.7.7 When would a Qualification remain appropriate?

The analysis above does not close the door permanently on a qualification for this cohort. A qualification becomes the more appropriate vehicle in two specific scenarios:

1. **Expanded scope of permitted work.** If the SME Group determines, on the basis of industry evidence and regulatory consultation, that the scope of permitted work should be substantially expanded beyond residential single-head split systems to 18kW (for example, to include multi-head residential systems, ducted residential systems up to a defined capacity, or light commercial split systems), then the breadth and depth of competency required may justify a full qualification. At that point, a Certificate III stream qualification, not a Certificate IV, would be the more appropriate vehicle, potentially with a restricted stream for licensed tradespeople and a full stream for apprentice-pathway candidates.

2. **Industry consensus for a new specialist credential.** If consultation with the SME Group, ARC, AIRAH, and peak employer and union bodies produces a clear consensus that a new, standalone specialist credential is needed, carrying its own occupational identity within the industry and a distinct licensing outcome, then a qualification would be the appropriate AQF vehicle. However, the current survey data does not support this level of consensus: the near-equal three-way split on recommended approach (30% keep/29% phase-out/27% strengthen) reflects an industry that has not yet reached that point.

> *"I believe a Cert 2 is appropriate as a scope add on for licensed trades who want to do split system work. But it should be harder to get, and the scope should be very clear. A 2-day course is not enough to be handling refrigerants safely."*
>
> — Licensed Electrician — Cert II Industry Use & Impact Survey, March 2026

7.7.8 Summary: PSO position for SME group consideration

Based on the evidence presented from both surveys, PSO's assessment is that a well-designed skill set within the UEE Training Package, with a mandatory licensed trade prerequisite, minimum practical hours, strengthened core competency requirements, and a mandatory supervised work period, is the most appropriate, evidence-supported, and industry-aligned product design for licensed plumbers, gas fitters and electricians seeking to add split system and heat pump installation to their licence scope.

A Certificate IV is not supported by the data for this cohort at the current scope of permitted work. It carries structural mismatches across breadth, duration, credential hierarchy, and market uptake likelihood. The Diploma precedent, a higher qualification that is already failing in uptake despite genuine post-trade demand, provides a clear cautionary example of what happens when qualification level is mismatched to cohort need.

The SME Group should note that this recommendation is specific to the current work scope. Any future decision to expand the scope of permitted work, particularly into ducted systems, multi-head residential, or light commercial, should trigger a reassessment of the appropriate training product vehicle, with a Certificate III stream qualification the more likely outcome at that point.

7.8 ARC licensing implications: How product design reform affects the Restricted Refrigerant Handling Licence

The ARC Restricted Refrigerant Handling Licence is the primary regulatory outcome sought by the cohort completing UEE20120, and any reform to the training product, whether a revised qualification, a new skill set, or a differentiated pathway model, carries direct implications for ARC's licensing framework. This section examines those implications and identifies the engagement and regulatory alignment actions required to ensure reform does not inadvertently create a licensing gap or compliance ambiguity.

7.8.1 The current linkage between UEE20120 and the ARC Licence

Under the Ozone Protection and Synthetic Greenhouse Gas Management Act 1989 (Cth) and its associated Regulations (2019), any person who handles a scheduled refrigerant, including installation, decommissioning, and any activity that involves opening a refrigerant circuit, must hold the appropriate ARC licence. The Restricted Refrigerant Handling Licence (RRHL) permits the holder to handle refrigerant in split system air conditioners and heat pump systems up to a defined capacity and is currently accessible via completion of UEE20120 Certificate II in Split Air Conditioning and Heat Pump Systems.

Survey data confirms that this linkage is the primary driver of enrolment. Across the Certificate II targeted survey (n=204), "*To obtain the ARC Restricted Refrigerant Handling Licence*" was cited as a top motivation by licensed electricians, plumbers and gas fitters alike, frequently alongside "*To expand my service offering*" and "*To work on residential split system installations.*" The qualification is, in practice, functioning primarily as a licensing vehicle rather than an occupational credential.

> *"ARC was formed in 2005 which forced refrigeration experienced electricians like myself to complete a Cert II in Split Air Conditioning to continue working with Split AC Systems."*

— Licensed Electrician Respondent — Cert II Industry Use & Impact Survey, March 2026

7.8.2 The structural enforcement gap: A pre-existing ARC problem

A significant finding in the survey data, particularly from respondents with enforcement or regulatory awareness, is that the ARC licensing framework already contains a structural enforcement gap that is independent of the training product. One respondent with extensive industry experience articulated it directly:

> *"HVACR is not a licensed trade as a whole... ARC directly interpret this code as unless the person is physically making contact with the refrigerant in the system, everything else can be done without a licence."*
>
> — Industry Respondent — Cert II Industry Use & Impact Survey, March 2026

This means that in practice, a range of activities associated with split system installation, including mounting, pipework, drainage, and commissioning tasks that do not involve direct refrigerant contact, can currently be carried out by individuals with no ARC licence at all. The survey identifies this as a contributing factor to the quality and safety incidents reported: when the boundary between "refrigerant work" and "installation work" is unclear, enforcement of the licence requirement becomes inconsistent.

This structural gap is not created by the training product review, but it is exacerbated by scope confusion in the current Certificate II. A revised qualification or skill set with a clearer, more precise scope statement that aligns 1:1 with the ARC licence conditions would reduce this ambiguity. PSO should flag this enforcement gap to ARC as a parallel reform issue, separate from but connected to the training product revision.

7.8.3 What changes if the training product becomes a Skill Set

If the SME Group endorses a skill set as the replacement vehicle for licensed plumbers, gas fitters and electricians (as recommended in Section 7.7), the following three ARC-specific changes are required:

1. **Regulatory recognition of Statements of Attainment.** ARC's current licensing framework links the RRHL to completion of an accredited qualification (UEE20120). A skill set produces a Statement of Attainment, not a Certificate. ARC would need to formally amend its licensing criteria to accept a specified UEE skill set Statement of Attainment as a qualifying credential for the RRHL. This requires engagement with the Department of Climate Change, Energy, the Environment and Water (DCCEEW), as the federal regulatory body responsible for the Regulations, and may require a formal regulatory amendment under the Ozone Protection and Synthetic Greenhouse Gas Management Regulations 2019 (Cth).

2. **Scope alignment between the skill set and the licence conditions.** The skill set scope statement must be drafted in precise alignment with the ARC RRHL scope, including the capacity limits (currently residential split systems up to 18kW), permitted activities (installation, decommissioning, commissioning, refrigerant recovery and recharge), and excluded activities (service and maintenance beyond the defined scope, systems above capacity). 57% of respondents who cite scope confusion as a current problem, and the 35% who report being asked to perform out-of-scope work, demonstrate that this alignment is currently failing. A skill set, if well-designed, provides an opportunity to fix this alignment at the source.

3. Differentiated licence conditions for different trade cohorts. The proposed differentiated pathway model (Table 19, Section 7.7.5) implies that licensed electricians and licensed plumbers/gas fitters may require slightly different RRHL conditions reflecting their different pre-existing scope of work. For example, a licensed electrician completing the skill set would not need to perform gas/pipe work within scope, while a licensed plumber/gas fitter would. ARC should be engaged to consider whether the RRHL can be issued with cohort-specific endorsements, or whether a single licence class remains appropriate with updated scope language.

7.8.4 What changes if the Qualification is revised (not replaced)

If the SME Group recommends strengthening the existing qualification rather than replacing it with a skill set, the ARC implications are more limited but still require active engagement. Three issues arise:

1. Scope statement update. Any revision to the qualification overview and packaging rules, including changes to the defined scope of permitted work, should be communicated to DCCEEW and ARC in advance so that the RRHL conditions can be updated in parallel. If the scope of the revised Certificate II changes (e.g., to include or exclude heat pump hot water or light commercial systems), ARC must update the licence conditions to match and DCCEEW must update the regulations. A mismatch between qualification scope and licence scope would recreate the same confusion the reform is intended to resolve.

2. Minimum training hours and ARC Code of Practice alignment. ARC's Refrigerant Handling Code of Practice includes provisions about the competency required for licence applicants. If the revised qualification mandates minimum practical training hours (as recommended in R1), ARC should update its Code of Practice to reflect these requirements as a signal to RTOs and licence applicants that minimum hours are a regulatory expectation, not just a training package preference.

3. Licence renewal and CPD. Multiple respondents raised the absence of continuing professional development (CPD) requirements for RRHL holders as a systemic problem. One respondent suggested: *"ARC could introduce a licensing test for licence renewals to ensure technicians know the standards and are familiar with the new code of practice, similar to how ESO skills maintenance is done when renewing an electrical licence."* A revised qualification that includes updatable units (particularly for A2L/HC refrigerant transitions) creates a natural vehicle for ARC to introduce CPD requirements at licence renewal without mandating a full re-qualification.

7.8.5 A2L Refrigerant transition: An urgent ARC and training alignment issue

Fourteen respondents in the targeted Certificate II survey cited fire or explosion risk from flammable refrigerants as a type of safety incident they had witnessed or been aware of. The industry is actively transitioning to R32 (classified A2L — lower flammability) and increasingly to hydrocarbon refrigerants (A3 — highly flammable), driven by international phase-down schedules under the Kigali Amendment and domestic HFC management regulations. This transition has direct implications for both the ARC licensing framework and the training product.

Currently, the ARC RRHL does not differentiate between refrigerant classes in its licence conditions for split system work, a holder can work with R410A, R32, and in some contexts

hydrocarbon refrigerants under the same licence. As the industry transitions, this "one licence for all refrigerants" approach becomes increasingly high-risk if the training product does not include dedicated A2L and HFC safety competencies. The survey data strongly supports a dedicated unit for flammable refrigerant safety as a non-negotiable core component of any revised training product, and PSO should engage ARC to consider whether the RRHL conditions should require demonstrated competency in A2L/HFC safety as a condition of licence grant or renewal.

> *"There is no dedicated training for flammable refrigerants in the current Cert II. With R32 now the standard refrigerant in split systems, this is a serious safety gap that needs to be addressed urgently."*
>
> — HVACR Technician Respondent — Cert II Industry Use & Impact Survey, March 2026

7.8.6 Summary: ARC engagement actions required by reform pathway

The following table summarises the ARC engagement actions required under each reform pathway, mapped to the responsible party and urgency.

Table 19: ARC Engagement Actions by Reform Pathway

Action Required	Skill Set Pathway	Revised Qualification Pathway	Urgency
Amend licensing regulations to recognise Statement of Attainment	REQUIRED — formal regulatory amendment needed	Not required — existing qualification basis unchanged	Critical (pre-launch)
Update ARC Restricted Licence scope to align with revised training product scope	REQUIRED — skill set scope must map 1:1 to licence conditions	REQUIRED — any scope changes in revised Cert II must be reflected in licence	Critical (concurrent with reform)
Engage DCCEEW on regulatory framework changes	REQUIRED — regulation change process	Recommended — notify DCCEEW of scope changes	Critical (concurrent with reform)
Consider differentiated RRHL conditions for electrician vs. plumber cohorts	RECOMMENDED — supports differentiated pathway model	Optional — single licence class may remain appropriate	Medium
Update ARC Code of Practice to reflect	RECOMMENDED — reinforces skill set	REQUIRED — CoP should signal	High

Action Required	Skill Set Pathway	Revised Qualification Pathway	Urgency
minimum practical training hours	minimum hour requirements	minimum hours as regulatory expectation	
Introduce CPD requirements at RRHL renewal (A2L/HC refresher)	RECOMMENDED — updatable units in skill set support CPD framework	RECOMMENDED — revised qualification units can support CPD	High (A2L transition urgent)
Add dedicated A2L/HFC safety competency as RRHL licence condition	REQUIRED — embed as core unit in skill set design	REQUIRED — embed as non-negotiable unit in revised qualification	Critical (safety)
Address structural enforcement gap (non-refrigerant installation activities)	RECOMMENDED — parallel reform, not training product issue alone	RECOMMENDED — parallel reform, not training product issue alone	Medium (systemic)

Source: Analysis of Cert II Industry Use & Impact Survey and HVACR Industry Sector Survey

8. Recommendations

The following ten recommendations are derived directly from the survey data and the discussion in Section 7. They are presented in priority order with an indicative timeframe for action. PSO notes these are recommendations for consideration by the HVACR SME Group and Technical Committee — final decisions on qualification reform will follow the full consultation and governance processes required under the TPOF.

Table 20: Evidence-Based Recommendations for UEE20120 Certificate II Reform

No.	Recommendation	Priority	Timeframe	Data Basis
R1	Establish mandatory minimum practical training hours within the qualification — recommended minimum 80 hours (10 days) of hands-on practical training. This should be embedded as a qualification requirement, not left to RTO delivery discretion.	Critical	Immediate	119/204 (58%) cite practical hours as #1 reform priority; 56% RTOs currently deliver ≤2 days

No.	Recommendation	Priority	Timeframe	Data Basis
R2	Revise units of competency for refrigerant handling and refrigeration cycle fundamentals. Refrigeration cycle is the only competency where "inadequate" exceeds "adequate" (-8% net gap). A2L and hydrocarbon transition makes this safety critical.	Critical	Immediate	39% rate refrigeration cycle fundamentals as inadequate; 14 respondents cite fire/explosion risk from flammable refrigerants
R3	Strengthen assessment requirements for brazing, pressure testing, and commissioning. These are the three highest-risk practical competencies and are among the most frequently cited inadequate areas.	Critical	Immediate	Brazing 36% inadequate; pressure testing 38% inadequate; 70 respondents cite pressure testing failures as safety incidents
R4	Clarify and strengthen the scope statement in the qualification overview. Out-of-scope work is a systemic issue — 57% believe scope needs clarification; 35% report out-of-scope work frequently.	High	Short-term	57% cite need for scope clarification; 7 types of out-of-scope work identified; service/maintenance most common at 48%
R5	Explore a mandatory supervised practice period following qualification completion — analogous to an apprenticeship sign-off requirement. 62% of employers believe the qualification alone is insufficient for independent work.	High	Short-term	62% of employers require supervision/support; multiple quotes support structured post-qual. period
R6	Establish a clear formal pathway from Certificate II to Certificate III, including recognition of prior learning	Medium	Short-term	75/204 (37%) identify Cert III pathway alignment as a reform priority; 4% of

No.	Recommendation	Priority	Timeframe	Data Basis
	(RPL) provisions and credit transfer arrangements.			completers currently cite Cert III as motivation
R7	Revise assessment requirements to include consistent industry-standard safety checks, particularly for flammable refrigerant systems. Safety incident rate (39%) and A2L transition urgency make this a near-term priority.	High	Short-term	14 respondents report fire/explosion risk; transition to R32 and hydrocarbons underway nationally
R8	Work with ARC and state regulators to improve consistency in scope enforcement and jurisdictional recognition. Consumer clarity is critical, 57% of customers do not understand the qualification's scope.	Medium	Medium-term	57% customers score "not well understood"; jurisdictional inconsistency raised in multiple open-ended responses
R9	Consider consumer-facing disclosure requirements — e.g., requirement for Cert II practitioners to disclose qualification level and scope to customers at point of engagement.	Medium	Medium-term	57% customers unaware of scope; risk of uninformed consent for out-of-scope work
R10	Engage ARC and DCCEEW formally as part of the training product reform process to ensure the Restricted Refrigerant Handling Licence framework is updated in parallel with any changes to UEE20120. Specific actions: (1) Confirm whether ARC will recognise a Statement of Attainment from a UEE skill set as a qualifying credential for the RRHL; (2) Align RRHL scope conditions with any revised training product	Critical	Immediate	14 respondents cite flammable refrigerant safety incidents; 57% cite scope confusion; primary enrolment motivation is ARC licence attainment; industry transitioning to R32/HC refrigerants with no dedicated training requirement. ARC engagement is a pre-condition for any product reform pathway.

No.	Recommendation	Priority	Timeframe	Data Basis
	scope; (3) Add dedicated A2L/HC flammable refrigerant safety as a mandatory RRHL licence condition; (4) Introduce CPD/refresher requirements at licence renewal; (5) Address the structural enforcement gap for non-refrigerant installation activities.			

Source: Analysis of HVACR Survey Oct 2025 and Cert II Survey March 2026

9. Conclusion

Two independent consultation instruments conducted by PSO between July 2025 and March 2026 have produced a consistent and compelling body of evidence about the UEE20120 Certificate II in Split Air Conditioning and Heat Pump Systems. The qualification has genuine value as a service-expansion pathway for already-licensed tradespeople, this is supported by data and should be recognised in any reform process.

However, the current design and delivery of the qualification is failing to produce consistent, safe, and competent outcomes. The systemic delivery of the qualification in as little as two days of practical training, for work that involves pressurised refrigerant systems, brazing, and electrical connections, is not acceptable. With 39% of respondents aware of safety incidents involving Certificate II holders, and with the industry's transition to flammable refrigerants underway, the urgency of reform is not theoretical, it is a present safety risk.

The near-equal three-way split on recommended approach (keep/phase-out/strengthen) confirms that simple solutions will not command broad support. The evidence most strongly supports a substantial strengthening of the qualification, particularly minimum practical hours, refrigerant handling competency, and brazing and pressure testing assessment, combined with a clearer scope statement, a formal Certificate III pathway, and complementary regulatory and consumer awareness measures.

PSO recommends that the HVACR SME Group and Technical Committee use the evidence in this report as a primary input into the UEE full training product review, alongside the broader qualitative and quantitative data gathered through Job Functional Analysis and ongoing stakeholder engagement.

Appendices

Appendix A: Survey data summary statistics

Table A1: Summary Statistics Across Both Surveys

Data Point	Broader Survey (n=526)	Targeted Survey (n=204)
Survey period	July–August 2025	March 2026
Total respondents	526	204
Employer/business respondents	Not disaggregated	~59% (approx. 120)
Scope adequacy — "yes"	23 (4.37% of total)	N/A — different question design
Scope adequacy — "no"	96 (18.25% of total)	N/A
Aware of safety incidents	Not measured	79 (39%)
Report out-of-scope work frequently	Not measured	71 (35%)
Completed in <4 weeks	Not measured	33 of 47 completers (70%)
RTOs delivering ≤2 days practical	Not measured	21 of 38 RTOs (56%)
Support for reform (any type)	Not directly measured	128 of 197 (65%)
Support for no change	Not directly measured	59 of 197 (30%)
Top revision priority	Not measured	Practical training hours: 119/204 (58%)

Sources: HVACR Industry Sector Survey Oct 2025; Cert II Industry Use & Impact Survey March 2026

Appendix B: Report notes and limitations

1. All data in this report is sourced directly from the two survey instruments. No data has been fabricated, simulated, or inferred beyond what the survey data directly supports.

2. The targeted survey (n=204) reflects a self-selected sample. While distribution through AIRAH, ARC, AMCA, and PSO networks provides reasonable industry coverage, findings should be interpreted as indicative of industry views rather than statistically representative of the full population of HVACR industry participants.

3. Where open-ended survey quotes are reproduced, they have been selected to represent the range of views expressed, including both positive and critical perspectives. Minor typographical corrections have been applied; no content has been altered.

4. This report does not constitute a recommendation to phase out the qualification. The data does not support a single unambiguous position, and PSO's role is to present evidence to inform SME Group deliberation, not to predetermine outcomes.

5. References to ARC, AIRAH, state regulators, and other bodies reflect stakeholder mentions in survey data and do not constitute PSO policy positions or commitments on behalf of those organisations.

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