



# Life Cycle Carbon Certified Practitioner Program

## Consultation paper

1<sup>st</sup> August 2022

### Authors

Tim Grant

Tim Harding

Rob Rouwette

On behalf of the Australian LCA Society Inc.

# Contents

1. Introduction.....	3
2. Proposed program design .....	4
3. Proposed timing for certification rollout .....	6
4. Competencies of Certified Practitioners.....	7
5. Certification Prerequisites and Evidence .....	10
6. Examination Details.....	11
7. Fee structure .....	12
8. Continuing Professional Development Requirements.....	13
9. Program Governance Structure .....	14

Feedback on this consultation document can be provided at  
<https://forms.gle/JUnn95PsP9tSxjme6>  
or provide written feedback to [info@alcas.asn.au](mailto:info@alcas.asn.au)

## Acknowledgement

The program set up is supported by the Department of Climate Change, Energy, the Environment and Water

# 1. Introduction

The Australian Life Cycle Assessment Society (ALCAS) is Australia's peak professional organisation for individuals involved in the use and development of life cycle assessment (LCA), management and thinking.

ALCAS was established in 2001 as a not-for-profit organisation to promote life cycle practices and sustainable development, and to coordinate the rapidly growing professional community in Australia.

ALCAS has been successfully running a certification program for LCA practitioners for the past six years. This program certifies practitioners in all aspects of LCA and is linked to a similar program in the US.

ALCAS has identified the need for a similar practitioner certification that focuses on greenhouse gas emissions and their climate change impact. The particular need is for a practitioner certification that maintains focus on a cradle-to-grave life cycle assessment of products and services, but limits the application to the climate change impact category. This certification will enable a broader group of practitioners to be certified and meet the current market demand that is heavily skewed towards climate change assessments as opposed to multi-indicator LCA studies.

The goal of the certification is:

1. To expand the pool of suitably qualified lifecycle-based carbon footprint practitioners
2. To support and deliver carbon emissions reduction programs at organisations and for products
3. To improve the life cycle carbon literacy of the carbon accounting community
4. To educate practitioners on the broader implications of choices in assessment methods, models, and scope setting, among other areas.

## Question 1

Are the goals of the certification appropriate to meet the current needs of life cycle carbon accounting?

## 2. Proposed program design

The LCCCP program is designed to be accessible by a broad range of professionals. While accessible, it will maintain rigour in focusing on the concept of life cycle assessment and how it is applied to climate change, as well as in its focus on good practices in modelling and reporting carbon footprints.

Figure 1 shows the basic program design which consists of:

- ▶ a prerequisite check to ensure that candidates meet minimum education and experience requirements
- ▶ candidate acceptance of a code of conduct on ethical practices
- ▶ an exam to test candidate understanding of life cycle assessment as it relates to climate change and carbon footprints
- ▶ ongoing continuing professional development (CPD) requirements for maintaining certification

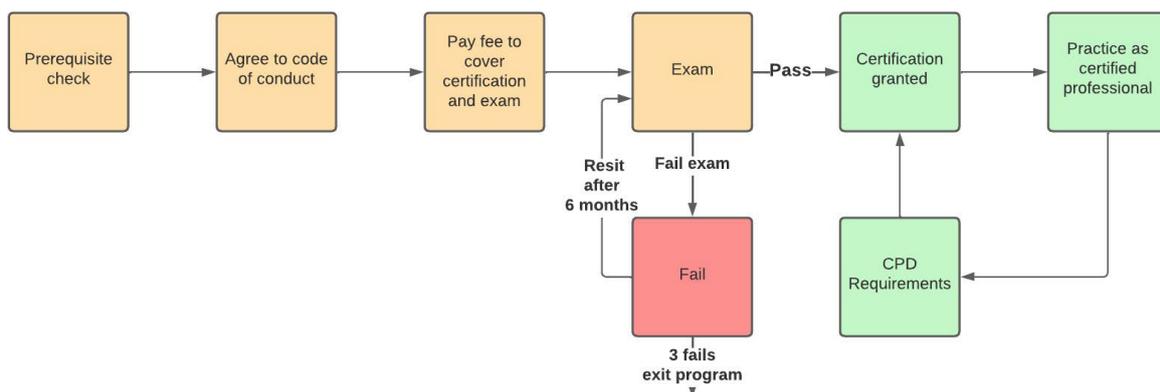


Figure 1 Basic program design

The proposed prerequisites are relatively onerous for the program (see section 5: 5 years' experience in the industry), yet the aim of the program is to get more people certified and available to the market. Therefore, ALCAS is considering a second pathway to certification for candidates with less practical experience in life cycle and carbon assessment to apply and become certified.

This alternative experience would involve a provisional certification which would only be confirmed after two successful carbon footprint projects/verification. The project/verification would be undertaken by a fully certified LCCCP professional selected by ALCAS. This program structure is outlined in Figure 2.

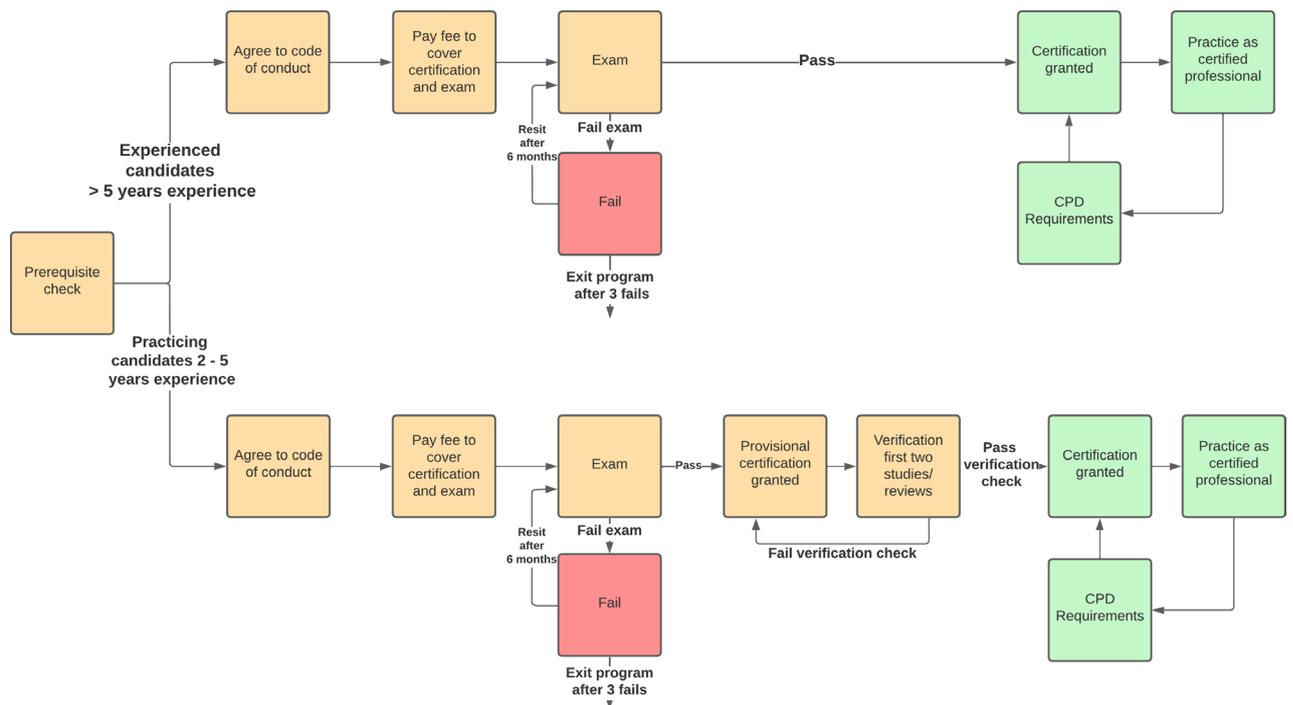


Figure 2 Alternative approach including optional pathway for less experienced candidates

### Question 2

Is there a need for an alternative pathway to allow candidates with less experience access to the certification?

### Question 3

Are two external reviews of carbon footprint assessments/verifications sufficient to determine the competence of candidates who are being certified via an alternative pathway?

### 3. Proposed timing for certification rollout

ALCAS has been working in the background on this program for the past 12 months. The aim is to have the program fully operational for 2023 after trialing the process in quarter 4 of 2022. Key dates are shown below in Table 1.

*Table 1 Key dates from the rollout of the program*

Key Dates	
Release consultation paper	1 <sup>st</sup> August 2022
Consultation webinar	10 <sup>th</sup> August 2022
Consultation close	10 <sup>th</sup> September 2022
Establish governance group	3 <sup>rd</sup> October 2022
Begin pilot testing	18 <sup>th</sup> October 2022
Complete pilot testing	2 <sup>nd</sup> December 2022
Open program for applicants	31 <sup>st</sup> January 2023

## 4. Competencies of Certified Practitioners

LCCCP certified status will indicate that a professional possesses certain competencies. Essentially, these are the same as a regular LCA practitioner for a cradle-to-grave life cycle assessment of products, services, and organisations, but limited to the climate change impact category. These studies are referred to in ISO 14067 as carbon footprint (CFP) studies. It covers the broader implications of choices in assessment methods, models, and scope setting, among other areas.

These competencies are in addition to the other prerequisites, such as levels of experience.

### Life Cycle Assessment

- ▶ Understand the complete life cycle assessment framework including:
  - The concepts of functional units and alternative derivatives such as reference units and declared units.
  - System boundaries including boundary between ecosphere and technosphere.
  - Inventory analysis and the propagation of life cycle impacts along a supply chain.
  - Impact assessment structure and processes.
  - Interpretation including data quality analysis, sensitivity and uncertainty assessment.
- ▶ Understand the relationship of LCA to CFP and the benefits and limitations of both.
- ▶ Be familiar with the overarching LCA standards ISO 14040 and ISO 14044.

### Greenhouse gas emissions

- ▶ Understand different terminology and definitions of greenhouse gases, global warming, global warming potentials, climate change and carbon footprints.
- ▶ Understand the basic science of global warming including radiative forcing, and carbon fluxes between atmosphere, oceans and terrestrial systems.
- ▶ Understand the temporal aspects of global warming potentials including cumulative and non-cumulative metrics.

## Standards

- ▶ Understand the general concepts and contents of the following standards:
  - ISO 14064
  - ISO 14067
  - GHG Protocol - Corporate Standard
  - GHG Protocol - Product Life Cycle Standard
  - GHG Protocol - Corporate Value Chain (Scope 3) Standard
  - PAS 2050
  - Climate Active Standard

## Data Management

- ▶ Understand the types, sources and relevance of data used in CFP.
- ▶ Understand how emission factors are calculated from:
  - Bottom-up unit process LCA models
  - Top-down environmentally extended input output models
  - Hybridised models containing both unit process and input output data.
- ▶ Understand the benefits and limitations of different data sources.
- ▶ Understand data suitability and how to assess it.
- ▶ Understand how to manage data quality and uncertainty, including its identification, documentation, and management.
- ▶ Understand how to cross-check and reference EFs, activity data and other forms of data to confirm data accuracy.

## Auditing and Verification

- ▶ Understand different levels of assurance provided in audits including:
  - Absolute assurance
  - Reasonable assurance
  - Limited assurance.
- ▶ Have a working knowledge of the requirements under ISO 14065:2013.
- ▶ Understand the difference between certification, verification and accreditation.
- ▶ Understand procedures for verification of organisational activity data and how this differs in nature from verification of emission factors.
- ▶ Understand how to identify the influence of allocation on CFP results.
- ▶ Be able to identify the representativeness of selective emission factors.
- ▶ Be familiar with audit documentation procedures including maintenance of audit dialogue.

## Communication

- ▶ Understand how to communicate and document results from CFP studies.
- ▶ Be able to link the conclusions from a CFP study to the original goal and scope.
- ▶ Be able to communicate the data quality and limitations of a CFP study.

### Question 4

Are there any gaps in the competency requirements? Are any requirements not relevant?

## 5. Certification Prerequisites and Evidence

LCCCP exam candidates must first have their prerequisites tested and approved before they can sit the exam.

We envisage two levels of LCCCP candidates:

- ▶ **Experienced candidates** are those GHG accounting professionals who have at least five years of experience in GHG accounting and have experience working as lead auditor/verifier of a carbon account.
- ▶ **Practicing candidates** are those GHG accounting practitioners who have at least two years of experience in GHG accounting.

Under each of the above levels, candidates must submit the following required evidence accordingly.

Prerequisites may be met by any one of the following:

- ▶ GHG accounting skills gained through experience: submit a product carbon footprint (or LCA) that is either critically reviewed (study submitted: applicant must be one of the listed authors) or published in a peer-reviewed journal that is recognised by the Australian Research Council ([www.arc.gov.au](http://www.arc.gov.au)). Independently verified Climate Active Product & Services carbon footprints qualify under this criterion.
  - a. Experienced candidates should submit proof of at least five product carbon footprints completed by the Applicant over a period of (more than) five years
  - b. Practicing candidates should submit proof of at least three product carbon footprints completed by the Applicant over a period of (more than) two years
- ▶ Experienced candidates need to submit evidence of a minimum of two GHG accounts for which they have acted as an independent lead auditor/verifier of the carbon account.
  - a. The accounts should be for two different clients or entities
  - b. 'Independent' means that the GHG account was prepared by an unrelated third-party (i.e. not from the same organization as the verifier)
  - c. The verified GHG accounts could be for organisations, products, services, precincts and/or events
  - d. Evidence can be provided by submitting the verification report (clearly stating the Applicant as a lead verifier/auditor) and published GHG account

### Question 5

Are the prerequisites sufficient to ensure certified LCCCP are experienced enough to meet the demands of the profession?

## 6. Examination Details

The applicant must pass an online multiple-choice examination in English, demonstrating knowledge of the criteria for LCCCP. These criteria are available on the ALCAS website and may be changed from time to time by the Certification Committee.

For each multiple-choice question, the candidate must select the correct answer from four or five possible answers. The questions will mostly be text-based but may contain images as well.

Still to be determined is:

- ▶ whether the exam is to be conducted in an open- or closed-book format
- ▶ the duration of the examination
- ▶ the number of questions
- ▶ the pass grade.

### Question 6

Should the exam be open-book or closed-book?

## 7. Fee structure

As ALCAS is a not-for-profit organisation, fees are priced at the lowest possible level and are non-refundable. Table 2 outlines the proposed fees for the program.

### Application Fee

- ▶ Payable on submission of application. The application and payment systems are online.
- ▶ A granted application will expire after 12 months.
- ▶ If an applicant fails the exam, they may take it again within the above timeframe without paying a second application fee.

### Exam Fee

- ▶ Payable before the exam is scheduled
- ▶ There are no free or discounted exam fees if applicants must re-sit the exam, so if they fail the exam they will need to pay a re-examination fee.
- ▶ Applicants are limited to three attempts at the exam every 12 months.

Table 2 Proposed fees for program

Proposed fees for program	
Application fee	\$500
Examination fee	\$300
Re-examination fee	\$300
Study review (for alternative pathway)	\$2,000

### Question 7

Are the fees for the program reasonable?

# 8. Continuing Professional Development Requirements

## 1. Certification Renewal Cycle

The LCCCP must renew their certification every three (3) years. All renewal cycles begin on the date of LCCCP certification and end three years later.

## 2. Re-certification requirements

Re-certification is granted to LCCCPs who have remained active in the field for the duration of the renewal cycle. This is evidenced by submitting three (3) product carbon footprints for which the Applicant is a lead-author, as well as evidence of the Applicant having earned a minimum of X CPD credits.

We will seek feedback on which elements of a Continuing Professional Development (CPD) system are considered appropriate for LCCCP. Typically, CPD points can be earned by undertaking courses, attending conferences and webinars, developing approved training courses, writing academic papers, etc.

Alternatively, an Applicant may take and successfully complete the current LCCCP examination in the third year of the cycle.

## 3. Fees

The Certification Renewal Fee is \$300. Certification renewal fees are payable before the end of the three-year renewal period. The fee is payable before any re-certification evidence (footprint studies, CPD credits) are checked.

## 4. Confirmation

Confirmation of re-certification will be sent within two (2) months of submitting the required evidence.

### Question 8

Are the CPD requirements appropriate?

## 9. Program Governance Structure

The certification program will be managed by an ALCAS committee reporting to the ALCAS board which is elected by ALCAS members as established under the Rules of ALCAS.

From within ALCAS membership, we aim to source both industry-based and consultant representatives as well as someone with a strong background in professional certification. With significant external interest in the program, it is proposed that the subcommittee has two external advisory members from the Australian and New Zealand governments.

This committee will oversee program elements, approve exam questions, monitor exam pass percentages and individual question pass rates to identify problems.

Any grievances which cannot be resolved by the committee will be sent to an external group for review.

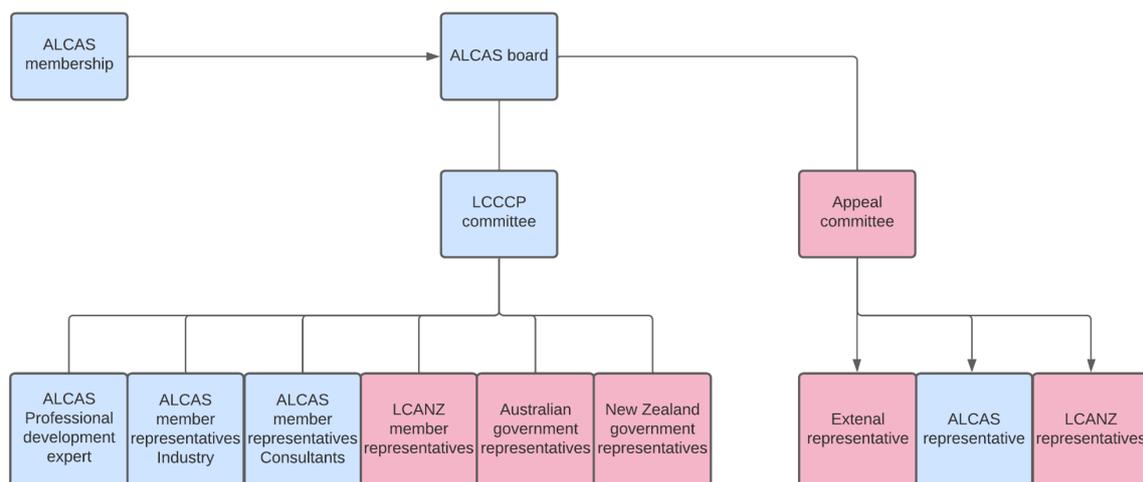


Figure 3 Proposed governance structure for the program

### Question 9

Does the governance structure provide appropriate representation?