

# JIS

JAPANESE  
INDUSTRIAL  
STANDARD

Translated and Published by  
Japanese Standards Association

---

**JIS Q 14044** : 2010

(ISO 14044 : 2006)

**Environmental management—  
Life cycle assessment—  
Requirements and guidelines**

---

ICS 13.020.10;13.020.60

Reference number : **JIS Q 14044 : 2010 (E)**

Q 14044 : 2010 (ISO 14044 : 2006)

Date of Establishment: 2010-10-20

Date of Public Notice in Official Gazette: 2010-10-20

Investigated by: Japanese Industrial Standards Committee  
Standards Board

Committee on Management System Standards

---

JIS Q 14044:2010, First English edition published in 2011-05

Translated and published by: Japanese Standards Association  
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

---

In the event of any doubts arising as to the contents,  
the original JIS is to be the final authority.

© JSA 2011

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Printed in Japan

AT

PROTECTED BY COPYRIGHT

## Contents

	Page
Introduction.....	1
1 Scope.....	2
2 Normative reference.....	3
3 Terms and definitions.....	3
4 Methodological framework for LCA.....	8
4.1 General requirements.....	8
4.2 Goal and scope definition.....	8
4.3 Life cycle inventory analysis (LCI).....	13
4.4 Life cycle impact assessment (LCIA).....	19
4.5 Life cycle interpretation.....	27
5 Reporting.....	31
5.1 General requirements and considerations.....	31
5.2 Additional requirements and guidance for third-party reports.....	32
5.3 Further reporting requirements for comparative assertion intended to be disclosed to the public.....	35
6 Critical review.....	35
6.1 General.....	35
6.2 Critical review by internal or external expert.....	36
6.3 Critical review by panel of interested parties.....	36
Annex A (informative) Examples of data collection sheets.....	37
Annex B (informative) Examples of life cycle interpretation.....	40
Bibliography.....	50

## Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law.

This Standard, together with **JIS Q 14040:2010**, cancels and replaces **JIS Q 14040:1997**, **JIS Q 14041:1999**, **JIS Q 14042:2002** and **JIS Q 14043:2002**, which have been technically revised.

This **JIS** document is protected by the Copyright Law.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

# Environmental management— Life cycle assessment— Requirements and guidelines

## Introduction

This Japanese Industrial Standard has been prepared based on the first edition of **ISO 14044** published in 2006 without modifying the technical contents.

The portions underlined with dots are the matters not stated in the corresponding International Standard.

The increased awareness of the importance of environmental protection, and the possible impacts associated with products, both manufactured and consumed, has increased interest in the development of methods to better understand and address these impacts. One of the techniques being developed for this purpose is life cycle assessment (hereafter referred to as “LCA”).

**NOTE 1** In this Standard, the term “product” includes services.

LCA can assist in

- identifying opportunities to improve the environmental performance of products at various points in their life cycle,
- informing decision-makers in industry, government or non-government organizations (e.g. for the purpose of strategic planning, priority setting, product or process design or redesign),
- the selection of relevant indicators of environmental performance, including measurement techniques, and
- marketing (e.g. implementing an ecolabelling scheme, making an environmental claim, or producing an environmental product declaration).

LCA addresses the environmental aspects and potential environmental impacts (e.g. use of resources and environmental consequences of releases) throughout a product’s life cycle from raw material acquisition through production, use, end-of-life treatment, recycling and final disposal (i.e. cradle-to-grave).

**NOTE 2** The “potential environmental impacts” are relative expressions, as they are related to the functional unit of a product system.

There are four phases in an LCA study:

- a) the goal and scope definition phase,
- b) the inventory analysis phase,
- c) the impact assessment phase, and
- d) the interpretation phase.

The scope, including system boundary and level of detail, of an LCA depends on the subject and the intended use of the study. The depth and the breadth of LCA can differ considerably depending on the goal of a particular LCA.