

- [Home Home](#)
- [About this portal](#)
- [Latest updates](#)

  
 

[Save](#)

[Resource detail](#)  
[Citations](#)

## AS/NZS 4509.2:2010 (R2016) Stand-alone power systems -Part 2: System design

[View on Information Provider website](#)

### Abbreviation

AS/NZS 4509.2:2010

### Valid from

21/11/2010

---

### Information provider

Standards New Zealand

### Author

Standards New Zealand, Standards Australia

### Information type

New Zealand Standard

### Format

PDF

---

### Description

This Standard sets out requirements and guidance for the design of stand-alone power systems with energy storage at extra-low voltage used for the supply of extra-low and low voltage electric power in a domestic situation. Equipment up to the system output terminals is covered.

The principles in this Standard are equally applicable to other systems including commercial and industrial applications and should be considered in the design of those systems.

Optimization of system design considering time of energy use is not covered by this Standard.

For assistance with locating previous versions, please contact the information provider.

### Notes/comments

Standard reconfirmed 13 December 2016

[View on Information Provider website](#)

For assistance with locating previous versions, please contact the information provider.

Standard reconfirmed 13 December 2016

This resource is not cited by any other resources.

# AS/NZS 4509.2:2010 (R2016) Stand-alone power systems -Part 2: System design

This document is not CITED BY any other resources:

Back

# AS/NZS 4509.2:2010 (R2016) Stand-alone power systems -Part 2: System design

Show what documents this resource is CITED BY

Show what documents this resource CITES

## Description

This Standard sets out requirements and guidance for the design of stand-alone power systems with energy storage at extra-low voltage used for the supply of extra-low and low voltage electric power in a domestic situation. Equipment up to the system output terminals is covered.

The principles in this Standard are equally applicable to other systems including commercial and industrial applications and should be considered in the design of those systems.

Optimization of system design considering time of energy use is not covered by this Standard.

[View on Information Provider website](#)

[AS/NZS 4509.2:2010 \(R2016\) Stand-alone power systems -Part 2: System design](#)

## Description

This Standard sets out requirements and guidance for the design of stand-alone power systems with energy storage at extra-low voltage used for the supply of extra-low and low voltage electric power in a domestic situation. Equipment up to the system output terminals is covered.

The principles in this Standard are equally applicable to other systems including commercial and industrial applications and should be considered in the design of those systems.

Optimization of system design considering time of energy use is not covered by this Standard.

[View on Information Provider website](#)

This resource does not cite any other resources.

# AS/NZS 4509.2:2010 (R2016) Stand-alone power systems -Part 2: System design

This resource does not CITE any other resources.

Back

Close

## Table of Contents

## Section 1 Scope And General

### 1.1 Scope

## **1.2 Referenced Documents**

## **1.3 Definitions**

# **Section 2 System Design-General**

## **2.1 Overview Of The Design Process**

## **2.2 General Design Criteria**

## **2.3 Assessment Of Energy Services And Energy Source Selection**

## **2.4 Costing And Economic Evaluation**

## **2.5 Documentation**

# **Section 3 System Design-Electrical**

## **3.1 Assessment Of Electricity Demand**

## **3.2 Resource Assessment**

## **3.3 System Configuration**

## **3.4 Component Sizing And Selection**

## **3.5 Metering And Control**

## **3.6 Electrical Protection**

## **3.7 Switching And Isolation**

## **3.8 Lightning Protection**

# **Section 4 System Design-Mechanical And Civil Works**

## **4.1 General**

## **4.2 Photovoltaic Array**

## **4.3 Wind Turbine Generators**

## **4.4 Micro-Hydro Turbine**

## **4.5 Generating Sets**

## **4.6 Battery**

## **4.7 Noise Control**

# Section 5 System Performance

## Appendices

**Appendix A - Worked Example For Sizing Of A Pv System With A D.C. Bus**

**Appendix B - Blank Worksheets For Pv System Sizing**

**Appendix C - Calculation Of Cable Size Required**

**Appendix D - Circuit Protection Sizing**

**Appendix E - Lightning Protection**

**Appendix F - Glossary Of Symbols**

**Appendix G - Bibliography**

[Feedback](#)


- [Contact us](#)
- [Privacy policy](#)
- [Disclaimer](#)
- [Copyright](#)


[Feedback](#)