ISO/TS 23764:2021-09 (E)

Methodology for achieving non-residential zero-energy buildings (ZEBs)

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Stepwise approach toward ZEB 2
4.1 General 2
4.2 Planning phase 3
4.2.1 Determining the ZEB stage target: ZEB-ready, nearly ZEB, or (net) ZEB 3
4.2.2 Reference primary energy consumption and reduction rate targets 4
4.3 Design phase 5
4.3.1 General 5
4.3.2 Setting the outcome 5
4.3.3 Passive design 6
4.3.4 Active design 6
4.3.5 Selection of building materials, equipment and systems 7
4.3.6 Forecast of primary energy consumption and energy supply for attaining the targets 9
4.4 Construction phase 9
4.4.1 General 9
4.4.2 Construction plan 9
4.4.3 Construction and inspection 10
4.4.4 Final check and verification (as built) 10
4.5 Operations and management 10
4.5.1 Fine tuning 10
4.5.2 Understanding the primary energy consumption 10
4.5.3 Comparison between planned primary energy consumption and actual measurements 10
4.5.4 Optimizing the energy consumption 11
4.5.5 Measurement and feedback 11

5 Examples of evaluations on ZEB 11

Annex A (informative) Example of (net) ZEB evaluation 12

Annex B (informative) Example of a nearly ZEB evaluation 22

Annex C (informative) Example of ZEB-ready evaluation 30

Bibliography 37