ICS 29.240.20 SLOVENSKÁ TECHNICKÁ NORMA September 2015

STN	**Vonkajšie elektrické vedenia so striedavým napätím nad 1 kV. Časť 2-20: Národné normatívne hľadiská (NNA) pre ESTÓNSKO (založené na EN 50341-1: 2012).**	**STN EN 50341-2-20** 33 3300

Overhead electrical lines exceeding AC 45 kV - Part 2-20: National Normative Aspects (NNA) for ESTONIA (based on EN 50341-1:2012)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/15

Obsahuje: EN 50341-2-20:2015

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50341-2-20

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English Version

Overhead electrical lines exceeding AC 45 kV - Part 2-20: National Normative Aspects (NNA) for ESTONIA (based on EN 50341-1:2012)

This European Standard was approved by CENELEC on 2015-01-06.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Ref. No. EN 50341-2-20:2015 E

CONTENTS

FOREWORD

1 The Estonian National Committee (NC) is identified by the following address

Estonian Centre for Standardisation

Estonian National High Voltage Committee (HVC)

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2 The Estonian NC has prepared this Part 2-20 of EN 50341, listing the Estonian national normative aspects under its sole responsibility, and has duly passed it through the CENELEC and CLC/TC 11 procedures.

NOTE: The Estonian NC also takes sole responsibility for the technically correct co-ordination of this NNA with EN 50341-1. It has performed the necessary checks in the frame of quality assurance / control. However, it is noted that this quality control has been made in the framework of the general responsibility of a standards committee under the national laws / regulations.

3 This Part 2-20 is normative in Estonia and informative for other countries.

4 This Part 2-20 has to be read in conjunction with EN 50341-1, referred to hereafter as Part 1. All clause numbers used in this Part 2-20 correspond to those in Part 1. Specific subclauses, which are prefixed “**EE**”, are to be read as amendments to the relevant articles in Part 1. Any necessary clarification regarding the application of Part 2-20 in conjunction with Part 1 shall be referred to the Estonian NC that will, in cooperation with CLC/TC 11, clarify the requirements.

When no reference is made in Part 2-20 to a specific subclause, Part 1 applies.

5 In the case of “box values” defined in Part 1, amended values (if any), which are defined in Part 2-20, shall be taken into account in Estonia.

However any boxed value, whether in Part 1 or Part 2-20, shall not be amended in the direction of greater risk in the Project Specification.

Terms with prepositions “from” and “up to”, denoting boundaries of values, always include the boundary values itself, as it is common in other Estonian normative documents.

6 The national Estonian standards/regulations related to overhead electrical lines exceeding AC 1 kV are identified/listed in Clause 2 of this Part 2-20.

NOTE All national standards referred to in this Part 2-20 will be replaced by the relevant European Standards as soon as they become available and are declared by the Estonian Centre for Standardisation to be applicable and thus reported to the secretary of CLC/TC 11.

0 INTRODUCTION

0.7 Language

(snc) **EE.1 Language**
This Part 2-20 is published in English and in Estonian.

1 SCOPE

1.1 General

(NCPT) **EE.1 Application to new lines**
This Part 2-20 applies to all new overhead electric lines with nominal system voltages exceeding AC 1 kV and with rated frequencies below 100 Hz. This standard also applies to D.C. overhead lines in structural aspects.

(NCPT) **EE.2 "New overhead line"**
A "new overhead line" means a completely new line between two points, A and B. A new branch line of the existing power line should be considered as a new power line including the junction support, for which specific requirements should be defined in the Project Specification.

1.2 Field of application

(A-dev) **EE.1 Application to mounting of telecommunication equipment**
The Standard EVS-EN 50341:2012 is applicable to fixing of structural elements for telecommunication (antennas, satellite dishes, All Dielectric Self Supporting (ADSS) equipment, etc.), if mounted on power line supports (towers), especially regarding wind forces and ice loads on such fixed elements. The design and installation should be done under the due control of the line owner and/or the competent authority. Mounting of telecommunication equipment on power line supports must be coordinated with line owner and stated in the Project Specification.

If telecommunication equipment (antennas, dishes, etc.) will be installed in the transmission line supports, and their size, location or mounting will have major effects on the loads or design of the structures, the requirements of EVS-EN 1993-3 will also have to be taken into account. If such structures include conductive parts, the requirements on clearances in Section 5.8 should be applied.

(NCPT) **EE.2 Application to existing overhead lines**
The Standard EVS-EN 50341:2012 shall not be applied to maintenance, reconductoring, tee-offs, extensions or diversions to existing overhead lines in Estonia, unless specifically required in the Project Specification.

In cases of major revisions of existing lines the degree of application of the Standard EVS-EN 50341:2012 should be agreed upon by the parties concerned and specified in the Project Specification.

(NCPT) **EE.3 Application to installations under construction or design**
Installations in the design and construction stage may be completed by using the standard valid at the beginning of planning unless otherwise agreed with the line owner and/or any other competent authority.

It must also be determined in the Project Specification which previous National Standard and to what extent should be applied to the project in question.

2 NORMATIVE REFERENCES, DEFINITIONS AND SYMBOLS

2.1 Normative references

(A-dev) **EE.1 Application of references in Part 1**
References in EN 50341-1 apply without change.

(A-dev) **EE.2 References to Estonian national laws, regulations and standards**
Choice of line route and construction or mounting of high voltage overhead line is regulated by the following Estonian laws and Government regulations. These laws and regulations are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. (RT – Riigi Teataja, RTL – Riigi Teataja Lisa (*supplement*). *Riigi Teataja* is the official publication of the Republic of Estonia).

NAME	PUBLICATION CITATION
Asjaõigusseadus Law of Property Act	(RT I 1993, 39, 590)
Asjaõigusseaduse rakendamise seadus Law of Property Act Implementation Act	(RT I 1993, 72, 1021)
Elektriohutusseadus Electrical Safety Act	(RT I 2007, 12, 64)
Elektrituruseadus Electricity Market Act	(RT I 2003, 25, 153)
Elektroonilise side seadus Electronic Communications Act	(RT I 2004, 87, 593)
Ehitusseadus[1] Building Act[1]	(RT I 2002, 47, 297)
Jäätmeseadus Waste Act	(RT I 2004, 9, 52)
Keskkonnajärelvalve seadus Environmental Supervision Act	(RT I 2001, 56, 337)
Keskkonnamõju hindamise ja keskkonnajuhtimissüsteemi seadus Environmental Impact Assessment and Environmental Management System Act	(RT I 2005, 15, 87)
Lennundusseadus Aviation Act	(RT I 1999, 26, 376)
Looduskaitseseadus Nature Conservation Act	(RT I 2004, 38, 258)
Maakatastriseadus Land Cadastre Act	(RT I 1994, 74, 1324)
Meresõiduohutuse seadus Maritime Safety Act	(RT I 2002, 1, 1)
Muinsuskaitseseadus Heritage Conservation Act	(RT I 2002, 27, 153)
Planeerimisseadus Planning Act	(RT I 2002, 99, 579)
Raudteeseadus Railways Act	(RT I 2003, 79, 530)
Teeseadus Roads Act	(RT I 1999, 26, 377)
Tööstusheitmete seadus Industrial Emissions Act	(RT I, 16.05.2013, 1)
Veeseadus Water Act	(RT I 1994, 40, 655)
Võlaõigusseadus Law of Obligations Act	(RT I 2001, 81, 487)
Majandus- ja kommunikatsiooniministri määrus „Elektripaigaldise kaitsevööndi ulatus ja kaitsevööndis tegutsemise kord“ Regulation of the Minister of Economic Affairs and Communications “Extent of protection zone for an electrical installation and practical arrangements in a protection zone”	(RTL 2007, 27, 482)

Sotsiaalministri määrus „Müra normtasemed elu- ja puhkealadel, elamutes ning ühiskasutusega hoonetes ja müratasemе mõõtmise meetodid“
Regulation of the Minister of Social Affairs “Audible noise limits in residential and recreational areas, residential and social buildings and noise level control methods” (RTL .2002, 38, 511)

The following Estonian standards should be taken into account:

EVS-EN 1991-1-4:2005+NA:2007. *Eurokoodeks 1: Ehituskonstruktsioonide koormused. Osa 1-4: Üldkoormused. Tuulekoormus. Eesti standardi rahvuslik lisa.* Eurocode 1: Actions on structures – Part 1-4: General actions – Wind actions. Estonian National Annex.

EVS-EN 1991-1-4:2005/A1:2010+A1:2010/NA:2010. *Eurokoodeks 1: Ehituskonstruktsioonide koormused. Osa 1-4: Tuulekoormus. Eesti standardi rahvuslik lisa.* Eurocode 1: Actions on structures – Part 1-4: General actions – Wind actions. Estonian National Annex

EVS-EN 50522:2010. *Üle 1 kV nimivahelduvpingega tugevvoolupaigaldiste maandamine.* Earthing of power installations exceeding 1 kV a.c.

EVS 814:2003. *Normaalbetooni külmakindlus. Määratlused, spetsifikatsioonid ja katsemeetodid*. Frost resistance of normal-weight concrete. Definitions, specifications and test method

EVS 843:2003. *Linnatänavad*. Town streets

EVS 884:2005. *Maagaasitorustik. Projekteerimise põhinõuded üle 16 baarise töörõhuga torustikele*. Natural gas pipeline systems – Pipelines for maximum operating pressure over 16 bar – General requirements for design

EVS-EN 14229:2010. *Ehituspuit. Õhuliinide puitpostid*. Structural timber – Wood poles for overhead lines.

EVS-EN 61773:2002. Overhead lines – Testing of foundations for structures

EVS-EN 1997-1:2005+NA:2006. *Eurokoodeks 7: Geotehniline projekteerimine. Osa 1: Üldeeskirjad*. Eurocode 7: Geotechnical design – Part 1: General rules

EVS-EN 1997-1:2005/A1:2013. *Eurokoodeks 7: Geotehniline projekteerimine. Osa 1: Üldeeskirjad*. Eurocode 7: Geotechnical design – Part 1: General rules

EVS-EN 60071-1. Insulation co-ordination – Part 1: Definitions, principles and rules

EVS-EN 60071-2. Insulation co-ordination – Part 2: Application guide

EVS-EN 61284:2002. Overhead lines – Requirements and tests for fittings

Other valid relevant normative regulatory documents should also be taken in account.

Internal normative documents of a utility may be referred to in the Project Specification.