

Time	Topic	Trainers	Lecture hours
<b>TUESDAY 03.12.2019.</b>			
8:30-8:50	Registration of participants		
8:50-9:00	Introductory words and training session opening		
<b>1. INTRODUCTION</b>			<b>1</b>
9:00-9:20	1.1 Energy performance of buildings Directive and related EU and national legislation novelties 1.2 New EPB standards: overarching and heating&domestic hot water systems 1.3 Energy performance calculations use and role	Emilien Paron (CSTB)? Laurent Social (SLR)	1
9:20-9:45	1.4 CEN-CE project 1.5 EU-wide common training and qualification scheme 1.6 How to become training provider of CEN-CE training scheme at national level 1.7 How to become CEN-CE standards certified expert	Jana Bendžalová (ENBEE)?	
<b>2. ENERGY PERFORMANCE CALCULATIONS</b>			<b>11</b>
9:45-10:50	2.1 Basic principles 2.1.1 Energy need for heating, technical system heat losses, delivered and primary energy 2.1.2 EN 15316-1 General and Energy performance expression 2.2 EN 15316-2 Space emission systems 2.2.1 Fundamentals 2.2.2 Calculation procedure 2.2.3 Handbook and spreadsheet use 2.2.4 Examples (nZEB) and parametric analysis 2.2.5 Quallification/Certfication for trainers and trainees	Damir Dović (FSB)	1.5
11:00-12:10	2.3 EN 15316-3 Space distribution systems 2.3.1 Fundamentals 2.3.2 Calculation procedure 2.3.3 Handbook and spreadsheet use 2.3.4 Examples (nZEB) and parametric analysis 2.3.5 Quallification/Certfication for trainers and trainees	Damir Dović (FSB)	1.5
12:10-13:00	Lunch break		

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13:00-14:10	2.4 EN 15316-4-1 Combustion systems (boilers, biomass) 2.4.1 Fundamentals 2.4.2 Calculation procedure 2.4.3 Handbook and spreadsheet use 2.4.4 Examples (nZEB) and parametric analysis 2.4.5 Quallification/Certfication for trainers and trainees	Ivan Horvat (FSB)	1.5
14:20-15:30	2.5 EN 15316-4-2 Heat pump systems 2.5.1 Fundamentals 2.5.2 Calculation procedure 2.5.3 Handbook and spreadsheet use 2.5.4 Examples (nZEB) and parametric analysis 2.5.5 Quallification/Certfication for trainers and trainees	Vladimir Soldo (FSB)	1.5
<b>WEDNESDAY 04.12.2019.</b>			
9:00-10:10	2.6 EN 15316-5 Space heating and DHW storage systems 2.6.1 Fundamentals 2.6.2 Calculation procedure 2.6.3 Handbook and spreadsheet use 2.6.4 Examples (boilers, heat pumps) and parametric analysis 2.6.5 Quallification/Certfication for trainers and trainees	Ivan Horvat (FSB)	1.5
10:20-11:50	2.7 EN 15316-4-3 Thermal solar and photovoltaic systems 2.7.1 Fundamentals 2.7.2 Calculation procedure 2.7.3 Handbook and spreadsheet use 2.7.4 Examples (nZEB) and parametric analysis (link to EN 15316-5) 2.7.5 Quallification/Certfication for trainers and trainees	Petar Filipović (FSB)	2

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12:00-13:10	2.8 EN 15316-4-4 Building-integrated cogeneration systems 2.8.1 Fundamentals 2.8.2 Calculation procedure 2.8.3 Handbook and spreadsheet use 2.8.4 Examples (nZEB) and parametric analysis 2.8.5 Quallification/Certfication for trainers and trainees	Dražen Lončar (FSB)	1.5
13:10-14:00	Lunch break		
<b>3. CALCULATION TOOLS</b>			<b>2</b>
14:00-15:30	3.1 Overview of the available calculation tools 3.2 Numerical dynamic simulations vs EPB calculations 3.3 European Product Database for Energy Labelling (EPREL) 3.4 Data inputs to the new EPB standards based software 3.5 Integral examples calculations in the new EPB standards based software	Laurent Socal (SLR)	2
15:30-15:40	Issuing of certificates to trainers and trainees		
<b>TOTAL</b>			<b>13</b>