

CEN/TC 57

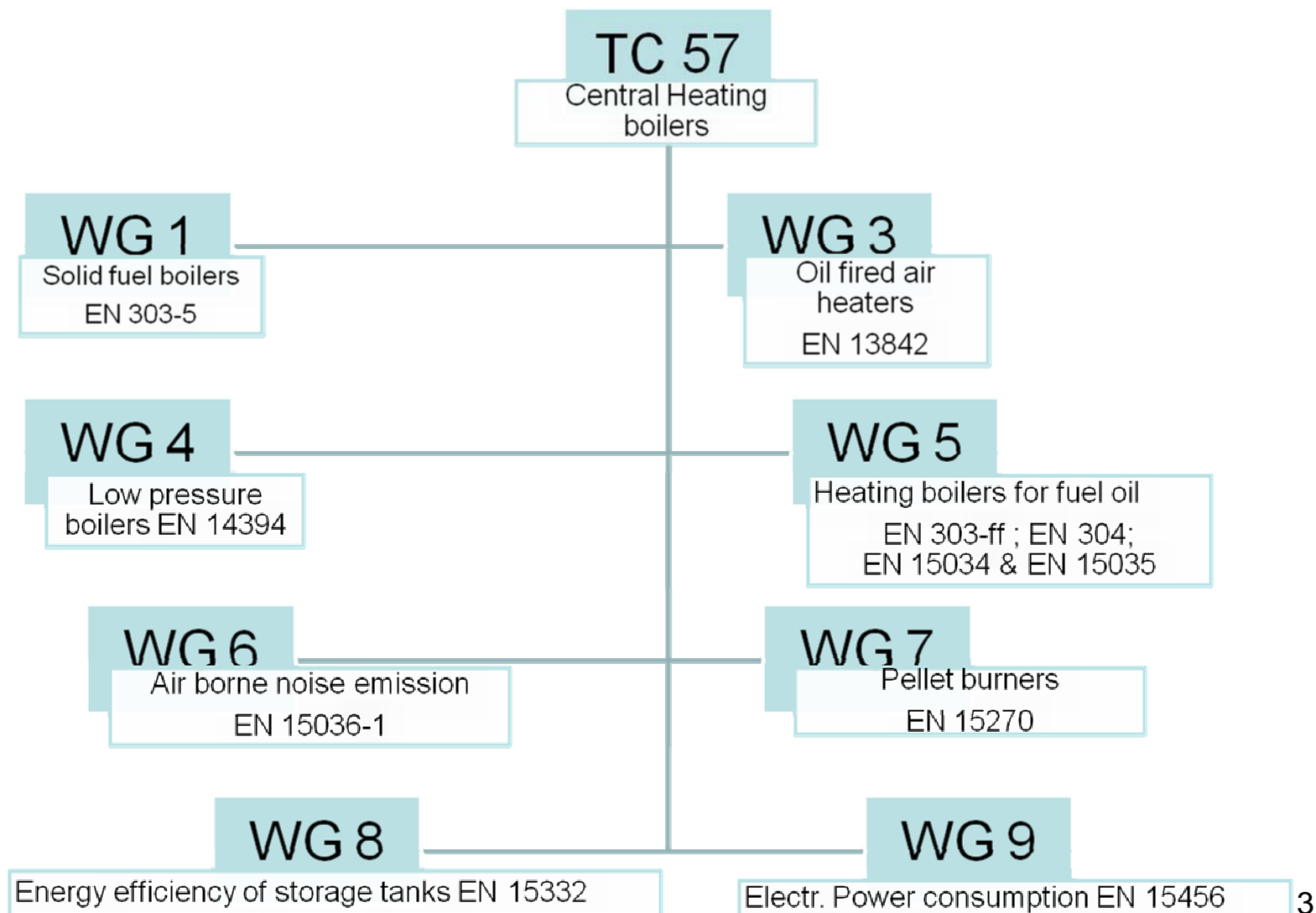
Central heating boilers

Wilfried Linke



Chairman/Sekretary

- Chairman
 - Wolfgang Hormel Viessmann Werke
- Secretary
 - Lutz Wrede DIN









Structure



Eco design requirements LOT 1

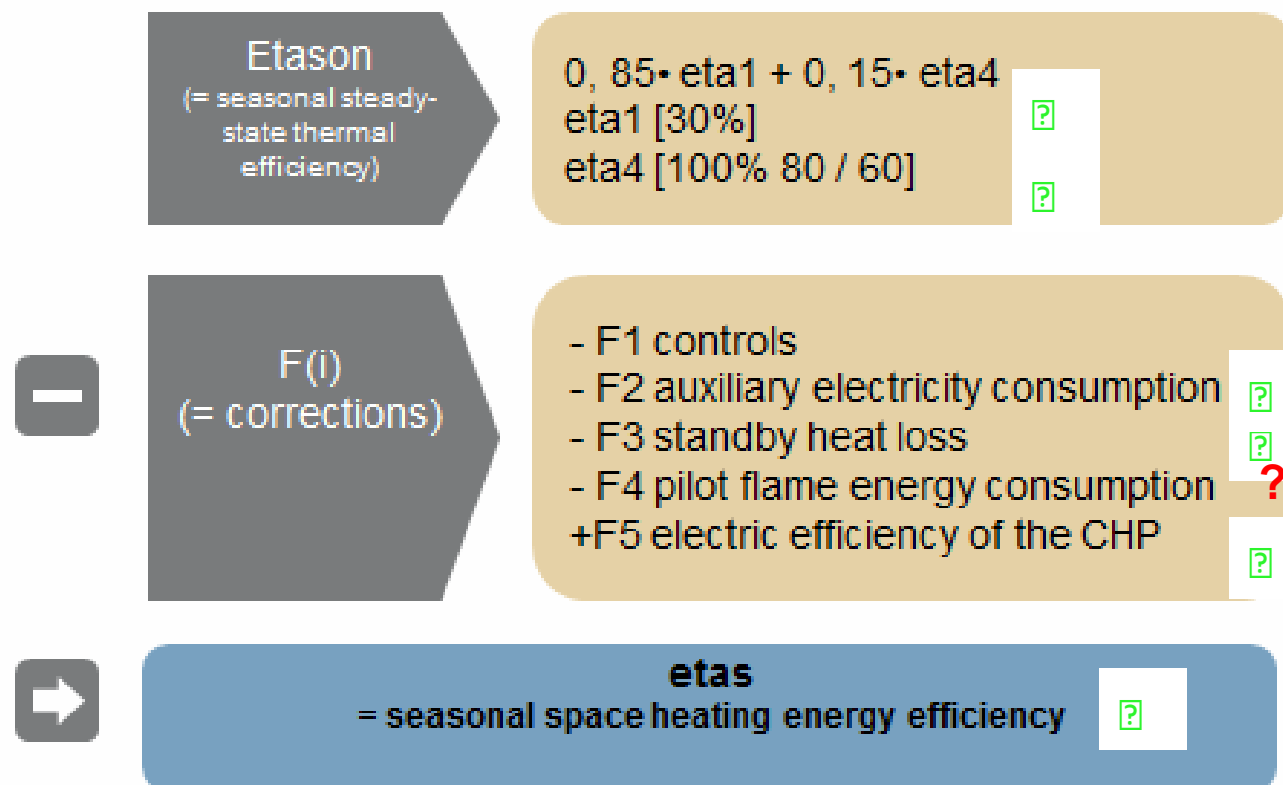
Scope	 Regulation on Ecodesign	 Regulation on Labelling
Boilers (Gas, Oi, Elec.)	0 - 400 kW	0 - 400 kW

100%
30%

	Efficiency	NOx	sound power
boilers & Combi boilers Gas / Oil	X 	X 	
CHP Gas / Oil	X 	X 	
heat pumps Gas / Oil / Electric	X 	(X) 	X 
electric boilers	X 		

Measurements

The seasonal space heating energy efficiency is defined as
 $etas = etason - \Sigma F(i)$



Emission requirements LOT 1

OJ + 3 years (GCV):

<small>new</small> Fuel boiler space heaters + Combi	using gas: 70 mg/kWh using liquid: 120 mg/kWh
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OJ + 5 years (GCV):

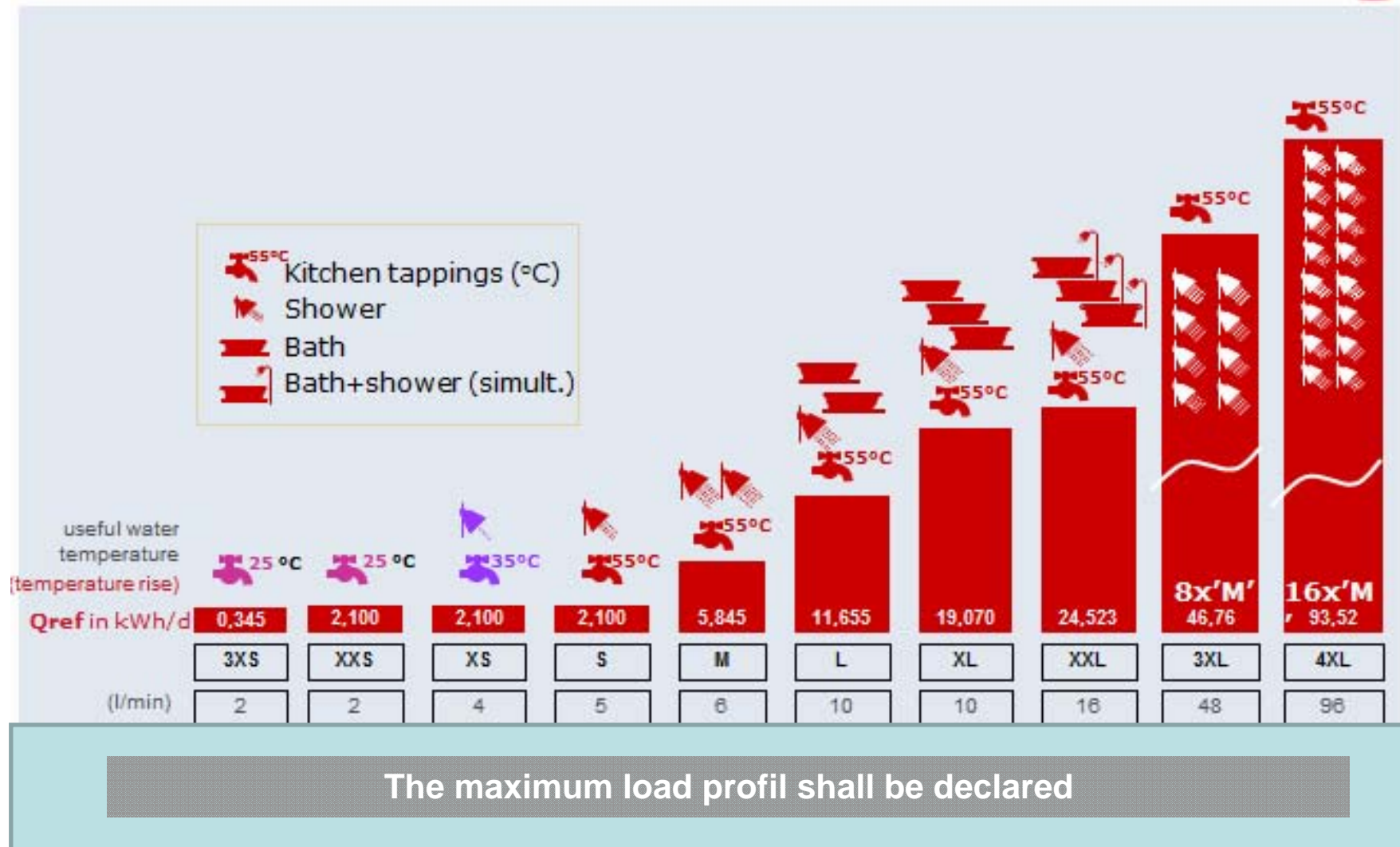
CHP with external combustion	using gas: 70 mg/kWh using liquid: 120 mg/kWh
CHP with internal combustion	using gas: 240 mg/kWh using liquid: 420 mg/kWh
HP with external combustion	using gas: 70 mg/kWh using liquid: 120 mg/kWh
HP with internal combustion	using gas: 240 mg/kWh using liquid: 420 mg/kWh

NOx requirements (70 mg/kWh) for boilers after 3 years: from Dec 2015

Eco design requirements LOT 2

	Efficiency	NOx	sound power
Gas/oil water heaters	x	x	
Electric water heaters	x		
electric DHW heat pumps	x		x
gas / oil DHW heat pumps	x	x	
storages	x		

LOT 2 Tapping requirements



LOT 2 Load profiles storage tanks

3XS	2XS	XS	S	M	L	XL	XXL	3XL	4XL
not exceed 7 litres	not exceed 15 litres	not exceed 15 litres	not exceed 36 litres	not exceed 65 litres	not exceed 130 litres	not exceed 210 litres	not exceed 300 litres	not exceed 520 litres	not exceed 1040 litres

Volume of storage water
heaters

Mixed water at 40 °C of
storage water heaters

Published standards 1

Standard reference	Title	Directive (Citation in OJEU*)	Sales Points
EN 13842:2004	Oil fired forced convection air heaters - Stationary and transportable for space heating	-	More
EN 14394:2005+A1:2008	Heating boilers - Heating boilers with forced draught burners - Nominal heat output not exceeding 10 MW and maximum operating temperature of 110 °C	92/42/EEC (Expected) 97/23/EC (C 81, 2009-04-04)	More
EN 15034:2006	Heating boilers - Condensing heating boilers for fuel oil	-	More
EN 15034:2006/AC:2008	Heating boilers - Condensing heating boilers for fuel oil	-	More
EN 15035:2006	Heating boilers - Special requirements for oil fired room sealed units up to 70 kW	92/42/EEC (Expected)	More
EN 15036-1:2006	Heating boilers - Test regulations for airborne noise emissions from heat generators - Part 1: Airborne noise emissions from heat generators	-	More
EN 15036-2:2006	Heating boilers - Test regulations for airborne noise emissions from heat generators - Part 2: Flue gas noise emissions at the outlet of the heat generator	-	More



Published standards 2

EN 15270:2007	Pellet burners for small heating boilers - Definitions, requirements, testing, marking	-	More
EN 15332:2007	Heating boilers - Energy assessment of hot water storage systems	-	More
EN 15456:2008	Heating boilers - Electrical power consumption for heat generators - System boundaries - Measurements	-	More
EN 303-1:1999	Heating boilers - Part 1: Heating boilers with forced draught burners - Terminology, general requirements, testing and marking	-	More
EN 303-1:1999/A1:2003	Heating boilers - Part 1: Heating boilers with forced draught burners - Terminology, general requirements, testing and marking	-	More
EN 303-2:1998	Heating boilers - Part 2: Heating boilers with forced draught burners - Special requirements for boilers with atomizing oil burners	92/42/EEC (No)	More
EN 303-2:1998/A1:2003	Heating boilers - Part 2: Heating boilers with forced draught burners - Special requirements for boilers with atomizing oil burners	-	More
EN 303-4:1999	Heating boilers - Part 4: Heating boilers with forced draught burners - Special requirements for boilers with forced draught oil burners with outputs up to 70 kW and a maximum operating pressure of 3 bar - Terminology, special requirements, testing and marking	-	More



Published standards 3

EN 303-5:1999	Heating boilers - Part 5: Heating boilers for solid fuels, hand and automatically stocked, nominal heat output of up to 300 kw - Terminology, requirements, testing and marking	-	More
EN 303-6:2000	Heating boilers - Part 6: Heating boilers with forced draught burners - Specific requirements for the domestic hot water operation of combination boilers with atomizing oil burners of nominal heat input not exceeding 70 kW	-	More
EN 304:1992	Heating boilers - Test code for heating boilers for atomizing oil burners	-	More
EN 304:1992/A1:1998	Heating boilers - Test code for heating boilers for atomizing oil burners	92/42/EEC (No)	More
EN 304:1992/A2:2003	Heating boilers - Test code for heating boilers for atomizing oil burners	-	More



Standards under development

	Project reference	Title	Candidate citation in OJEU*	Current status	DAV
00057035	FprEN 303-5	Heating boilers - Part 5: Heating boilers for solid fuels, manually and automatically stoked, nominal heat output of up to 500 kW - Terminology, requirements, testing and marking	Yes (2006/42/EC)	Under Approval accepted	2012-07