BREEAM-NOR 2016 New Construction Pre-Assessment Estimator Version 1.06 25.01.2018



Disclaimer

Thank you for downloading and using the BREEAM-NOR New Construction 2016 Pre-Assessment Estimator.

If you are using the Pre-Assessment Estimator for the first time please take a few moments to read the following:

The Pre-Assessment Estimator is the property of NGBC and BRE Global Ltd and is made publicly available for information purposes only. Its use for testing, assessment, certification or approval is not permitted. The results presented are indicative only of a building's potential performance and are based on a simplified, informal assessment and unverified commitments. The results do not represent a formal certified BREEAM-NOR assessment or rating and must not be communicated or presented as a BREEAM-NOR rating. NGBC/BRE Global Ltd accepts no responsibility for any actions taken as a result of information presented or interpreted by the BREEAM-NOR Pre-Assessment Estimator.

Starting a pre-assessment

You have downloaded and opened the template version of the BREEAM-NOR 2016 Pre-Assessment Estimator. The template version must always be used to start a new pre-assessment of a building.

To begin a pre-assessment of a building you must first define a few characteristics of the building requiring pre-assessment in the Assessment Details worksheet. This information ensures the Pre-Assessment Estimator selects the correct number of BREEAM-NOR issues and credits for the building.

Completing a pre-assessment

These questions are arranged by assessment issue. The number of indicative BREEAM-NOR credits achieved and overall performance will depend on your response to each question. In most cases questions are answered by entering the number of BREEAM-NOR credits you wish to award.

Before proceeding with the pre-assessment it is recommended that you save a copy of the Pre-Assessment Estimator using the building name and date as a filename, for example: BREEAM-NOR 2016 Pre-Assessment Estimator v1.0 - Office HQ 1/11/16.

Utviklet for NGBC av Asplan Viak i samarbeid med Vedal og OSU











General information	Building details	
BRE Assessment reference no.	Building type (main description) Indu	ustrial
Client name Bergen Kommune - EFU	Building type (sub-group) Veh	icle servicing unit
Building end user/occupier	Project type New	v Construction (fully fitted)
Assessor name	Assessment stage Pre-	assessment
Assessor organisation	BREEAM-NOR scheme New	v Construction
Assessor registration number	BREEAM-NOR version BRE	EAM-NOR 2016
Building details	Usable floor area, BRA - m ²	1800
Building name Fana Brannstasjon	Gross floor area, BTA - m ²	2000
Building address Rådalslien	Gless not deby sin	
RÅDAL		
INDAL	Does this industrial building have a heated or cooled operational area? (Pol 01, Pol 02) Yes	
	Does this industrial building have an office area? (Pol 01, Pol 02, Hea 03) Yes	
Date for Pre-Assessment Estimation	Does the building require the use of refrigerants within its installed plant/systems? (Pol 01) No	
Date for design phase	Commercial/industrial refrigeration and cold storage systems (Ene 05) No	
Completion Date	Does the building contain lifts, escalators or moving walks? (Ene 06) Yes	
	Laboratory function/area and size category (Ene 07, Hea 02) No I	
Project team details		,
Developer	Does the assessed development contain external site access areas (e.g. vehicle access and parking areas)? (Hea 06) Yes	
Principal contractor	Are there any risks associated with natural hazards (other than flooding) for the assessed development? (Hea 07) Unk	
Architect (ARK)	Internal or external planting and/or soft landscaping (Wat 04) Yes	
Project management Project management	Vehicle Wash System (Wat 04) Yes	
BREEAM-NOR Accredited Professional		
Consulting engineer HVAC (RIV)		
Consulting engineer Electrical (RIE)		
Consulting engineer Engineering (RIB)	No. credits available original	141
Consulting engineer Environment (RIM)	No. Credits not available (filter)	10
Others, project team	No. credits available	131
Community	Pull-time descriptions	
Comment	Building description	

Note: If you are starting a new pre-assessment please ensure you are using the latest template version of the BREEAM-NOR 2016 Pre-Assessment Estimator and not a version used for an existing/previous pre-assessment.

BREEAM assessor declaration of assessment accuracy and quality

Felt for underskrift.

Trykk høyre museknapp, velg "endre bilde/change picture" og så "fra fil/from a file" for å legge til din underskrift.

BREEAM-NOR Assessor Signature
Date

Disclaimer

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Pre-Assessment Estimator, version: 1.06 Tool date: 25.01.2018

BREEAM-NOR 2016 New Construction	Pre-Asses	sment	Estimator: I	Building Performar	nce		
		l	Initi	al target settin	ng		
Building name		Indicativ	e BREEAM-NC		Very Goo	d	(G) - Green - OK
Fana Brannstasjon	Indicativ	e total score		59,3 %		(Y) - Yellow - Unsure	
Pre-Assessment Estimator Version: 1.06			ndards level ad	hieved	Very Goo	d	(R) - Red - Not OK
	_						` '
	Available	Credits	Contribution	Minimum standards	Respon-	Stat.	General comments
BREEAM-NOR 2016 Issue	credits		to score	level achieved	sible		
MANAGEMENT							
Man 01 Project brief and design	4	3	1,8 %	N/A			1
Man 02 Life cycle cost and service life planning	4	2	1,2 %	N/A			
Man 03 Responsible construction practices	6	3	1,8 %	Outstanding			
Man 04 Commissioning and handover	3	3	1,8 %	Outstanding			
Man 05 Aftercare	3	3	1,8 %	Outstanding			
Total performance management	20		8,4 %	Credits achieved: 14			
Total performance management			0,470	Cicuity acilieved. 14			
HEALTH & WELLBEING							
Hea 01 Visual comfort	4	4	3,0 %	Outstanding			i e
Hea 01 Visual comfort - Criteria 1	Yes/No	Yes	3,0 %	Outstanding			
Hea 02 Indoor air quality	5	3	2,3 %	Outstanding			
Hea 03 Thermal comfort	2	2	1,5 %	N/A			
Hea 04 Microbial contamination	1	1	0,8 %	N/A			
Hea 05 Acoustic performance	2	2	1.5 %	N/A			
Hea 06 Safe access	2	2	1,5 %	N/A			
Hea 07 Natural Hazards	1	1	0,8 %	N/A			
Hea 08 Private space	0		0,0 %	N/A			
Hea 09 Moisture protection	3	2	1,5 %	Outstanding			
Total performance health & wellbeing	20		12,8 %	Credits achieved: 17			
			==,0 ;;				
ENERGY							
Ene 01 Energy efficiency	12	6	4,8 %	Excellent			
Ene 02 Energy monitoring	3	1	0,8 %	Outstanding			
Ene 03 External lighting	1	1	0,8 %	N/A			
Ene 04 Low and zero carbon technologies	2	0	0,0 %	Very Good			
Ene 05 Energy efficient cold storage	0		0,0 %	N/A			
Ene 06 Energy efficient transportation systems	2	1	0,8 %	N/A			
Ene 07 Energy Efficient Laboratory Systems	0		0,0 %	N/A			
Ene 08 Energy efficient equipment	2	0	0,0 %	N/A			
Ene 09 Drying space	0		0,0 %	N/A			
Ene 23 Energy performance of building structure	_						
and installations	2	2	1,6 %	Outstanding			
Total performance energy	24		8,7 %	Credits achieved: 11			
TRANSPORT							
Tra 01 Public transport accessibility	3	1	1,1 %	N/A			
Tra 02 Proximity to amenities	1	1	1,1 %	N/A			
Tra 03 Alternative modes of transport	2	2	2,2 %	N/A			
Tra 04 Maximum car parking capacity	2	0	0,0 %	N/A			
Tra 05 Travel plan	1	0	0,0 %	N/A			
Tra 06 Home office	0		0,0 %	N/A			
Total performance transport	9		4,4 %	Credits achieved: 4			
WATER							
	5	1	0,6 %	Excellent			
Wat 01 Water consumption Wat 02 Water monitoring	1	1	0,6 %	N/A		1	
Wat 02 Water monitoring Wat 03 Water leak detection and prevention	2	1	0,6 %	N/A		1	
Wat 04 Water efficient equipment	1	1	0,6 %	N/A		1	Punkt 3. utgår.
Total performance water	9		2,2 %	Credits achieved: 4			Fullik J. utgal.
rotal performance water	7		2,2 /0	Credits acrileved: 4			

MATERIALS

	₩ NGBC
Design phase progression	Construction phase progression
To activate select YES in cell P7	To activate select YES in cell V7
Available	Available

Fana brannstasjon BREEAM-NOR-2016-Pre-Assessment-Estimator 17.06.2019

	Available	Credits	Contribution	Minimum standards	Respon-	Stat.	General comments
BREEAM-NOR 2016 Issue	credits		to score	level achieved	sible		
Mat 01 Life cycle impacts	7	3	3,7 %	Outstanding			
Mat 01 Life cycle impacts - Criteria 1	Yes/No	Yes	-	Outstanding			
Mat 03 Responsible sourcing of materials	3	2	2,5 %	Outstanding			
Mat 03 Responsible sourcing of mat Crit 1.	Yes/No	Yes	-	Outstanding			
Mat 05 Designing for robustness	1	1	1,2 %	N/A			
Total performance materials	11		7,4 %	Credits achieved: 6			
WASTE							
Wst 01 Construction waste management	3	3	4,5 %	Outstanding			
Wst 02 Recycled aggregates	1	0	0,0 %	N/A			
Wst 03 Operational waste	1	1	1,5 %	Outstanding			
Wst 04 Speculative floor and ceiling finishes	0		0,0 %	N/A			
Total performance waste	5		6,0 %	Credits achieved: 4			
LAND USE & ECOLOGY							
LE 01 Site selection	3	2	2,0 %	N/A			
LE 02 Ecological value of site and protection of	2	0	0,0 %	N/A			
ecological features	2	U	0,0 %	IN/A			
LE 04 Enhancing site ecology	3	0	0,0 %	N/A			
LE 05 Long term impact on biodiversity	2	0	0,0 %	N/A			
LE 06 Building footprint	0		0,0 %	N/A			
Total performance land use and ecology	10		2,0 %	Credits achieved: 2			
POLLUTION							
POL 01 Impacts of refrigerants	3	3	1,8 %	N/A			
POL 02 NOx emissions	3	2	1,2 %	N/A			
POL 03 Surface water run-off	5	5	3,1 %	N/A			
POL 04 Reduction of night time light pollution	1	1	0,6 %	N/A			
POL 05 Noise attenuation	1	1	0,6 %	N/A			
Total performance pollution	13		7,4%	Credits achieved: 12			
EXEMPLARY LEVEL AND INNOVATION (max 10 c	redits)					
Inn 01 - Man 05 Aftercare	1	0	0,0 %	N/A			
Inn 02 - Hea 02 Indoor air quality	1	0	0,0 %	N/A			
Inn 03 - Tra 03 Alternative modes of transport	1	0	0,0 %	N/A			
Inn 04 - Wat 01 Water consumption	1	0	0,0 %	N/A			
Inn 05 - Mat 01 Life cycle impacts	2	0	0,0 %	N/A			
Inn 06 - Mat 03 Responsible sourcing of materials	1	0	0,0 %	N/A			
Inn 07 - Wst 01 Construction site waste man.	1	0	0.0 %	N/A		1	
Inn 08 - Wst 02 Recycled aggregates	1	0	0.0 %	N/A		1 1	
Inn 09 - Approved innovation credits	10	0	0,0 %	N/A		1 1	
Total indicative environmental section						_	
performance	10		0,0 %	Credits achieved: 0			

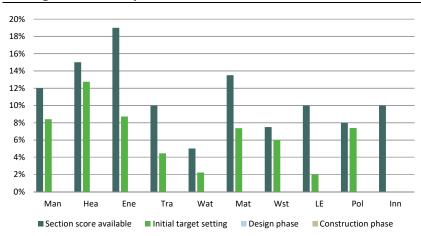


Overall Building Performance

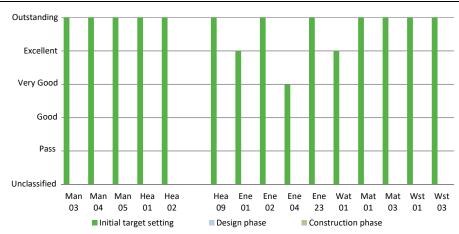
Building name Fana Brannstasjon Initial target setting Design phase Construction phase Show results Yes No No Indicative BREEAM-NOR rating Very Good Indicative total score 59,3 % Min. standards level achieved Very Good

Pre-Assessment Estimator Version: 1.06. Date: 25.01.2018

Building Performance by Environment Section



Min. standards level achieved



		Initial tar	get setting			Weighting		Score	
	No. credits	Credits	% credits				Initial target		
Environmental Section	available	Achieved	achieved				setting		
Management	20	14	70 %			12 %	8 %		
Health & Wellbeing	20	17	85 %			15 %	13 %		
Energy	24	11	46 %			19 %	9 %		
Transport	9	4	44 %			10 %	4 %		
Water	9	4	44 %			5 %	2 %		
Materials	11	6	55 %			13,5 %	7 %		
Waste	5	4	80 %			7,5 %	6 %		
Land Use & Ecology	10	2	20 %			10 %	2 %		
Pollution	13	12	92 %			8 %	7 %		
Innovation	10	0	0 %			10 %	0 %		
Sum	131	74					59,3 %		
Indicative BREEAM-NOR	rating						Very Good		
Min. standards level achi	eved						Very Good		



		Unitia	al target s	etting				11	Design n	has	e nrogre	ssion	LICon	struct	ion r	hase	nrogression		
Duilding name			ve BREEAM-NO								Design phase progression Construction phase p d (G) - Green - OK Indicative BREEAM-NOR rating Unclassified Indicative BREEAM-NOR rating								
Building name:				R rating	Very Good	1	(Y) - Yellow - Unsure					Indicative total score 0.0 %							Unclassified
Fana Brannstasjon			ve total score	lata al	59,3 %		(R) - Red - Not OK					Unclassified	Indicative total score Min. standards level achieved			tarra d	0,0 %		
Pre-Assessment Estimator Version: 1.06		Min. sta	andards level ac	nieved	Very Good	1	(R) - Red - Not OK	J L	Min. standards	ievei	acnieved	Unclassified	Min. st	andards I	evel acn	ieved	Unclassified		
BREEAM-NOR 2016 Issue	Available credits	Credits	Contribution to score	Minimum standards level achieved	Respon-	Stat.	General comments		Credits Respo	n- St	at. Subject	Comments	Credits	Respon-	- Stat.	Subject	Comments		
Management		1			J.D.C			н	Janaic				\vdash	Joine			1		
Man 01 Project brief and design	4	3	1,8 %	N/A	1	1		4 }	<u> </u>			T		1	1 1		T		
Man O1 Project brief and design	4	- 3	1,8 %	N/A	+			┨╂		-		+		1	+				
Man 02 Life cycle cost and service life planning	4	2	1,2 %	N/A															
Man 03 Responsible construction practices	6	3	1,8 %	Outstanding				4 1					→ 		-				
Man 04 Commissioning and handover	3	3	1,8 %	Outstanding				4 1					→ 		-				
Man 05 Aftercare	3	3	1,8 %	Outstanding				4 }		_					-				
Total performance management	20	14	8,4 %		1			1					+						
Health & Wellbeing				_															
Hea 01 Visual comfort	4	4	3,0 %	Outstanding] [
Hea 01 Visual comfort - Criteria 1	Yes/No	Yes	-	Outstanding				↓											
Hea 02 Indoor air quality	5	3	2,3 %	Outstanding		1		41				1	⊣	<u> </u>					
Hea 03 Thermal comfort	2	2	1,5 %	N/A				↓											
Hea 04 Microbial contamination	1	1	0,8 %	N/A		1		41				1	⊣	<u> </u>					
Hea 05 Acoustic performance	2	2	1,5 %	N/A				۱.											
Hea 06 Safe access	2	2	1,5 %	N/A	1			41		_			⊣	1					
Hea 07 Natural Hazards	1	1	0,8 %	N/A				4							\perp				
Hea 08 Private space	0	0	0,0 %	N/A				4											
Hea 09 Moisture protection	3	2	1,5 %	Outstanding				۱.											
Total performance health & wellbeing	20	17	12,8 %					4											
Energy								П											
Ene 01 Energy efficiency	12	6	4,8 %	Excellent				11											
Ene 02 Energy monitoring	3	1	0,8 %	Outstanding				11											
Ene 03 External lighting	1	1	0,8 %	N/A				11											
Ene 04 Low and zero carbon technologies	2	0	0,0 %	Very Good				11											
Ene 05 Energy efficient cold storage	0	0	0,0 %	N/A				ı											
Ene 06 Energy efficient transportation systems	2	1	0,8 %	N/A															
Ene 07 Energy Efficient Laboratory Systems	0	0	0.0 %	N/A				11											
Ene 08 Energy efficient equipment	2	0	0,0 %	N/A				11											
Ene 09 Drying space	0	0	0,0 %	N/A				11											
Ene 23 Energy performance of building structure and installations	2	2	1,6 %	Outstanding				11											
Total performance energy	24	11	8,7 %	 	1	 		11		+	_		$\dashv\vdash$	+	+				
Total performance energy		1	0,7 70	l	1	1		1				1	⊣	1	1 1		L		
Transport								П											
Tra 01 Public transport accessibility	3	1	1,1 %	N/A				11											
Tra 02 Proximity to amenities	1	1	1,1 %	N/A	İ			11	1	T			7						
Tra 03 Alternative modes of transport	2	2	2,2 %	N/A				11											
Tra 04 Maximum car parking capacity	2	0	0,0 %	N/A				11											
Tra 05 Travel plan	1	0	0,0 %	N/A				11											
Tra 06 Home office	0	0	0,0 %	N/A				11											
Total performance transport	9	4	4,4 %][
Matar								П											
Water	T =		0.534	E II	1			4	1	_				1	, ,				
Wat 01 Water consumption	5	1	0,6 %	Excellent	1			4 }		+			\dashv \vdash	+	+				
Wat 02 Water monitoring	1	1	0,6 %	N/A	1	1		┨ ┡				1	\dashv \vdash	+	+ -				
Wat 03 Water leak detection and prevention	2	1	0,6 %	N/A	1	1	D	4		+		1	\dashv \longleftarrow	1	+				
Wat 04 Water efficient equipment	1	1	0,6 %	N/A	1	1	Punkt 3. utgår.	4 }		-		1	\dashv \vdash	+	+ +				
Total performance water	9	4	2,2 %	L				J L						<u> </u>			1		

BREEAM-NOR 2016 Issue	Available credits	Credits	Contribution to score	Minimum standards level achieved	Respon- sible	Stat.	General comments	Cred	Respon-	Stat.	Subject	Comments	Credi	ts Respon-	Stat.	Subject	Comments
Materials																	
Mat 01 Life cycle impacts	7	3	3,7 %	Outstanding									1				
Mat 01 Life cycle impacts - Criteria 1	Yes/No	Yes	· -	Outstanding													
Mat 03 Responsible sourcing of materials	3	2	2,5 %	Outstanding													
Mat 03 Responsible sourcing of mat Crit 1.	Yes/No	Yes	-	Outstanding													
Mat 05 Designing for robustness	1	1	1,2 %	N/A													
Total performance materials	11	6	7,4 %														
Waste																	
Wst 01 Construction waste management	3	3	4,5 %	Outstanding													
Wst 02 Recycled aggregates	1	0	0,0 %	N/A													
Wst 03 Operational waste	1	1	1,5 %	Outstanding													
Wst 04 Speculative floor and ceiling finishes	0	0	0,0 %	N/A													
Total performance waste	5	4	6,0 %														
Land use & Ecology																	
LE 01 Site selection	2	١ ،	2.00/	Tau/a	1	1				1	ı	1			1	1	
LE 01 Site selection LE 02 Ecological value of site and protection of	3	2	2,0 %	N/A								+	-				
ecological features	2	0	0,0 %	N/A													
LE 04 Enhancing site ecology	3	0	0,0 %	N/A				-		1			1		+		
LE 05 Long term impact on biodiversity	2	0	0,0 %	N/A									1				
LE 06 Building footprint	0	0	0,0 %	N/A													
Total performance land use and ecology	10	2	2,0 %	.,													
,				·L		1						1			•		
Pollution																	
POL 01 Impacts of refrigerants	3	3	1,8 %	N/A													
POL 02 NOx emissions	3	2	1,2 %	N/A													
POL 03 Surface water run-off	5	5	3,1 %	N/A									↓ 				
POL 04 Reduction of night time light pollution	1	1	0,6 %	N/A													
POL 05 Noise attenuation	1	1	0,6 %	N/A													
Total performance pollution	13	12	7,4 %														
Exemplary level and innovation (max 10 credits)																	
Inn 01 - Man 05 Aftercare	1	0	0,0 %	N/A									l L				
Inn 02 - Hea 02 Indoor air quality	1	0	0,0 %	N/A						<u> </u>		ļ	l				
Inn 03 - Tra 03 Alternative modes of transport	1	0	0,0 %	N/A						<u> </u>		ļ	 				
Inn 04 - Wat 01 Water consumption	1	0	0,0 %	N/A				<u> </u>		<u> </u>			↓		1		
Inn 05 - Mat 01 Life cycle impacts	2	0	0,0 %	N/A	-	1		<u> </u>		<u> </u>			l		1		
Inn 06 - Mat 03 Responsible sourcing of materials	1	0	0,0 %	N/A													
Inn 07 - Wst 01 Construction site waste man.	1	0	0,0 %	N/A													
Inn 08 - Wst 02 Recycled aggregates	1	0	0,0 %	N/A									1 📖				
Inn 09 - Approved innovation credits	10	0	0,0 %	N/A									 				
Total indicative environmental section	10	o	0,0 %														
performance		l								1	<u> </u>	1					

BREEAM-NOR 2016 New Construction Pre-Assessment Estimator: Version Control



Current Version	Release Date	Description of changes/additions made to the BREEAM Assessment Scoring and Reporting Tool
1.06	25.01.2018	Sheet Assessment Details: Corrected error: when editing text, the existing text disappeared.

Previous Versions	Release Date	Description of changes/additions made to the BREEAM Assessment Scoring and Reporting Tool
1.05	17.01.2018	Sheet Pre-Assessment Estimator: Fixed yes/no error for Design phase progression and Construction phase progression Added "PAE available for copy": Use this sheet if you need to copy the Pre-Assessment Estimator to new Excel Workbook
1.04	31.03.2017	Pol 01: Available credits for builings with and without refrigerants within its installed plant/systems: 3 credits. Pol 02: Industrial building, If the building does not contain an office area, and the operational area is designed to be unheated without significant hot water, 0 credits available in Pre-Assessment Estimator. Tra 01: Education, If Preschool - Secondary Education, 3 credits available in Pre-Assessment Estimator (adjusted from 5 credits). Hea 02: Corrected minimum standard in tool according to manual: min 2 credits for VG, min 3 credits for E and O (criteria 6 and 8 includes criteria 1).
1.03	15.11.2016	POL 01: Assessment details: Changed question ODP legislation to does the building contain refrigerants. TRA 04: Adjusted to 0 credits available when retail.
1.02	30.09.2016	Ene 05: If the building does not contain commercial/industrial sized refrigeration system(s), 0 credits available in Pre-Assessment Estimator.
1.01	26.09.2016	Assessment Details: Commercial/industrial refrigeration and cold storage systems (Ene 05) not visible when building type is residential. This change
1.00	31.08.2016	Initial Release Version of BREEAM-NOR 2016 New Construction Pre-Assessment Tool.