Greater London Authority - Whole Life-Cycle Carbon (WLC) Assessment template

HOW TO USE THIS SPREADSHEET

This template should be used by planning applicants to fulfil the requirements of the Mayor's Whole Life-Cycle Carbon assessment policy set out in London Plan Policy SI 2. Before completing and submitting this spreadsheet to the GLA, applicants should read the Whole Life-Cycle Carbon Assessment guidance:

https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/planning-guidance/whole-life-cycle-carbon-assessments-guidance-preconsultation-draft

Applicants are required to submit WLC information to the GLA at the following three stages: pre-application, outline/detailed planning submission and post-construction. Separate tabs are provided in this spreadsheet for each stage. An outline of the information required at each stage and how to submit it is provided below.

1. Pre-application stage

At pre-application stage, applicants are required to complete the pre-application information tab of this template which requires applicants to confirm various details about the site and to provide details of the WLC principles which are informing the development of the site. This should be submitted to the GLA along with all other pre-application material.

2. Outline/detailed planning submission stage

At this stage, applicants are required to complete the outline or detailed planning stage tab of this template (whichever is relevant) and submit it to the GLA along with their planning application. This stage of the process requires a baseline WLC assessment against each life-cycle module to be undertaken. At outline stage this can be based on default figures from the RICS Professional Statement: Whole Life Carbon assessment for the built environment. At detailed stage this should be based on bespoke building assumptions. Applicants are required to undertake two assessments; the first accounts for the current status of the electricity grid and the second accounts for its expected decarbonisation. Applicants may determine which assessment is to form the basis of design decisions (which should be confirmed in the relevant cell) but both assessments should be completed. This spreadsheet allows for both assessments to be provided.

3. Post-construction stage

At the final stage of the WLC assessment process, applicants should complete the post-construction result tab of this template and submit it to the GLA within three months of practical completion. This will require an update of the information provided at planning submission stage and for the actual WLC carbon emission figures to be reported using actual material quantities and site emissions during construction. Information should be submitted to:

ZeroCarbonPlanning@london.gov.uk

QUERIES

Any queries or feedback on this template should be submitted to: ZeroCarbonPlanning@london.gov.uk

Project details	
Project name	
Planning application reference number (if applicable)	
Use Type	
Brief description of the project	
GIA (m²)	
Authors (organisation or individuals)	
Date of assessment	

		l	
WLC reduction principles	Key benefits	Has this principle been adopted? (Y/N)	If yes provide examples, and if no please provide reasons for this
Reuse and retrofit of existing buildings	Significant retention and reuse of structures is carbon efficient and reduces construction costs.		
2 Use recycled or repurposed material	Reduces carbon emissions and reduces waste.		
3 Material selection	Appropriate material choices is key to carbon reduction. Ensuring that there is synchronicity between materials selected and planned life expectancy of the building reduces waste and the need for replacement, thus reducing in use costs.		
4 Minimise operational energy use	A 'fabric first' approach should be prioritised to minimise energy demand and reduce carbon and in-use costs.		
5 Minimise operational water use	Choice of materials and durability of systems, to avoid leakage and subsequent building damage, contribute to reducing the carbon cost of water use.		
6 Disassembly and reuse	Designing for future disassembly ensures that products do not become future waste, and maintain their environmental and economic value.		
7 Building shape and form	Compact efficient shapes help minimise both operational and embodied carbon emissions for a given floor area. This means a more efficient building overall resulting in lower construction and in use costs.		
8 Regenerative design	Removing CO2 from the atmosphere through materials and systems absorbing it makes a direct positive contribution to carbon reduction.		
9 Designing for durability and flexibility	Durability means that repair and replacement is reduced which in turn helps reduce life-time building costs. A building designed for flexibility can respond with minimum environmental impact to future changing requirements and a changing climate, thus avoiding obsolescence which also underwrites future building value.		
Optimisation of the relationship between operational and embodied carbon	Optimising the operational/embodied carbon relationship contributes directly to resource efficiency and overall cost reduction.		
11 Building life expectancy	Defining building life expectancy gives guidance to project teams as to the most efficient choices for materials and products. This aids overall resource efficiency, including cost efficiency and helps future proof asset value.		
12 Local sourcing	Sourcing local materials reduces transport distances and supply chain lengths and has associated local social and economic benefits.		
13 Minimising waste	Waste represents an unnecessary and avoidable carbon cost. Buildings should be designed to minimise fabrication and construction waste, and to ease repair and replacement with minimum waste, which helps reduce initial and in-use costs.		
14 Efficient fabrication	Efficient construction methods (e.g. modular systems, precision manufacturing and modern methods of construction) contribute to better build quality, reduce construction phase waste and reduce the need for repairs during post completion and the defects period (snaggling).		
15 Lightweight construction	Lightweight construction uses less material which reduces the carbon footprint of the building as there is less material to source, fabricate and deliver to site.		
16 Circular economy	The circular economy principle focusses on a more efficient use of materials which in turn leads to carbon and financial efficiencies.		

Protect details	
Project name	Former Eleg Erresety
	1000000
	Residential approach. Placking connected and community formulate in include I Polish francial and codescound services, calministracy
Brief description of the proper	The former Stag Streamy Site is bounded by Lower Richmond Road to the south, the river Themes and the Themes Stark to the north, Tillians Laive to the east and Bulk Alay (off Shofdate Algo), Sines (to the seed; The Site is blanched by Site), Laive. The Site currently componer a make of Sare used insulated inventor disculpture, to see were of the bidshorthous and solving Setting.
	+ g. ES EN 1919, with additional guidance from RCCI Professional Statement
Haberenia study period (if and 60 years	83 years
	OneClub LCA - Carbon passeognesii, RICE Tool

Estimated MCC emberiums (Sassessment T) N.E. This turns the W.C. baseline for the development. The results born A	consument 1 limbor are automati	ually populated twee.			
	Worklow AT All	Value ET ES	Models BE 87	Module C1 C4	Models D
TOTAL Ng CO ₄ e	14,708,308 kg CCO+	2,130,660 kg C00w	22,896,071 kg C02+	86,083 kg/CCO#	0,766,687 kg C03+
	267.554091	38.58375566	418.386004	1,711238716	48.7688794
Comparison with MCC terrohearts (see Approxity 2 of the gardenic) F. Assessment 1 was used to below the light decisions	NITA Assessment 1 not used to	irllum design deciklims.			
		a many major mana	and at much record as the	COPOLINE AND DESIGNATION	

	Modelle AT All	Module 81-85	Models BERT	Module C1 C4	Module D
TOTAL by CO.p.	14,701,308 kg C02+	2,120,660 kg C02+	7,284,091 kg CCO+	86,063 kg CCO+	***************************************
TOTAL by COWN GA	267.884391	38.38279366	133.5398916	1,711238716	48.16883760
Comparison with MLC Sensionaria (see Appendix 2 of the guidance) if Assessment 2 was used to judice design decisions	Sisplain the reasons for an Please rule that grid dinial	y diseigences from W. Sonnadon has not bee	C benchmarks, Including a accounted for in the 1	ig against the WLC aspirati encomarking	onal benchmarks.

	aggregation on size. Due to the early stages of the project a pre-demotion has not per laws understans to or quantity of autitation materials but the could reform take design demands. The Projected Development and autitation of the factorial regard stages of perspect or project per Projected projections, the administration of the factorial regard stages by analysis Project of the projected convinces, this administration of the factorial regard stages by analysis of Project of the project convinces, this administration of the factorial regard of the perspective of the pers	ider to billion the potential to has the opportunity to further de and 10 out products, and
Summers of hear actions to reduce whole life cools carbon	Action	BPC segretion (xf coneux,
emissions that have informed this assessment, including the WLC	Reductions in total energy consumption due to passive design, LZOx, and heat pumps. Reduction from Baseline	16 kg CCDwind GLA
	Further potential apportunities	MLC reduction potential (kg CO _p ain* GLA)
Zaecify further opportunities to reduce the development's whole	Explore specification of durable and robust materials and products to reduce EQ-5 enciouses.	
the croile carbon embasions, including the WLC reductor outential		

MATERIAL CO	ANTITY AND END OF LIFE SCENARIOS	Product and Construct	Day Street (Module A)				beyond the system
Building stem		Material type	Material quantity (kg)	Assumptions made with respect to maintenance, repair and replacement option (Module II)	Material and of Star scenarios (Module C)	Entirected reveable materials (kg)	(Module D) Estimated recyclable materials (kg)
		Shrubdown of material type in each salegory (Inself more lines if needed) e.g. Concrete	69000 kg	For all primary building systems. (clouders, substraction, enumbers, MEP sentions, internal brinders)	Declare 'end of Mr' scenario as per project's Circular Scenary Statement	0 kg	2019
		e.s. Reducement e.s. Pormych	2000 No	services, rosman oromes,		2 No.	234 034
_	Denoting Transferror Controlled Market	e g. Porresok	200 kg			Glag	Okg
611	Indicati						
	Mape Demotion Works			1 🗸			
0.3	Temporary Support to Adjacent Structures			ı /\			
0.6	Rentabl Ground Works			1/ \			
	MARINE AND AN	COLUMN TIME.	16 122 180 Na	Personni	Recycling of Conceste, Cenneril, Brisks, Stone, Cenamic, Stone, Asstudi to recipies primary proved	030	11.296.086 No
	Superirulare frame	Courte See	6 700 713 Na	60		530	4.890,730 ha
	Superdructure User Pitors	Mont and	26 102 106 14	60	Season, Non-André Lucarios appara, marri	530	19.606.339 ha
- 11	treatrates Enf	COLUMN TOWN THE COLUMN	4.110.110.Na	60	Recycling of Concessio, Common, Broke, Stone,	530	3.288.088 No
14	Constitution Time and Samue	Processor Want	1.197.004.64		Caranto, Stone, Assist to reclaim primary grand. Recycling of Consents, Connect, Stoke, Stone,	530	963.623 No
11	Supplyable Edward Hab		1.00 727 N	75.47	Course Sure Assist Lumber Leave Lawy	590	4301791 No
14	Exemplant of Madeus and External Doors	Carry and Automor	Date	2040	Recording of advantages, wheel	530	Ote
	Superioralize Interest Visits and Parlitims	Montan and Contahous	1700.000.00	60 for standard const	жирону и ракон и пераме ротогу учин.	5 No.	998,672340
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	representati nerra sous	Park Flor sovetnes, Tites	1025 152 64	12 regular part	and the same of th	5 to 0	820,121 ha
	Filinas, Secondores & magazineri (FFE)	Part Plan severings Tiles	1000 100 Ag	15 years for paint 20:00 years	Macquiring of Processor, Commission, States of Figures.	Diag Diag	820,121 kg
					Recording for Application Street Statement stand.		
	Services (USEP)		1.00.007 kg	s and other heat entitles 25 years for etect	Carbonized sheet Cooper coated Cooper uncoated	Dig	1,661,318 kg
	Performated Buildings and Building Units		Chy			Dig	Ole
,	Mark is Existing Eulding		Chy		Recording of Concests Connect Blocks, Stone	Dig	Ole
	Extend works	Not Concrete	2 NO ALC NO	03 years	Penysting of Consente, Cement, Brake, Stone, Ceramic, Stone, Asshall is restore primary prime?	Dig	2,338,273 kg
		TOTAL			=	Dieg	00,019,323 kg
		Material intensity (kg/m2 GUA)	1,739 kg/n2 (SA			Daying GIA	911 kg/m2 GUA

ASSESSMENT 1 - current status of the electricity grid

	(MACON)	Sequestered (or biogenic) carbon (regular salur)	Product stage (kgCCOs)	Construction process of	dage (kgC03e)				Une sting	to britozali			End of	Life (BoL) es	age (kgCCC)			Benefits and loads beyon system boundary (kgCC
		(AgCCOA)		Module A					Mon	dute B				Medule	c			Model C
ing stam	end cuttegory		Swall on Swall	pag*	paq	perg	lest.	(MX)*	(me)*	(me)	led	(87)	led	(ca)	(cs)	Scel		Madala D
6.1	Sensition Toxin Hazanbour Contaminated Miderial Traditional												0 kg C03+	0 kg C00w	0 kg C03+	0 kg/CCO+	0 kg CCDe	
62	Major Demolton Works												0 kg C03+	0 kg C00w	0 MJ C033+	g Mil CCO+	d kg CCO+	
63	Persporary Support to Adjacent Structures.	0 kg 003w	0 kg C03 k	0 kg C00w	d kg CCDe	0 kg CCO+	0 kg CCD+	0 Mg CCDw	0 kg C00+	0 kg C00ae	\		0 kg C03+	0 kg C00w	0 kg C03+	0 kg/CCO+	0 kg CCDe	# lag CODs
0.4	Epocatel Ground Works	0 kg C03w	6 kg C02k	0 kg C00e	0 kg CCDe	0 kg CCOs	0 kg CCDs	0 kg CCOe	0 kg 000e	0 kg C00e			0 kg C03+	0 kg C00w	0 MJ C033+	g Mil CCO+	d kg CCO+	8 kg COSe
0.3	Perspusary Disension Works	0 kg 003w	0 kg C03 k	0 kg C00w	d kg CCDe	0 kg CCO+	0 kg CCD+	0 Mg CCDw	0 kg C00+	0 kg C00ae		/	0 kg C03+	0 kg C00w	0 kg C03+	0 kg/CCO+	0 kg CCDe	# Ng CODe
1	Bulletructure	0 kg C03w	4,880,839 kg CCD+	87,666 kg CCO#	0 kg CCDe	0 kg CCOs	0 kg CCDs	0 kg CCOe	16,672 kg/CCOe	0 kg C00e		/	30,890 kg C00e	0 kg C00w	0 MJ C033+	g Mil CCO+		4,884,887 kg C00
2.1	Superducture Frame	0 kg 003w	BET/ROTING COOM	26,811 kg CCO+	d kg CCDe	0 kg CCO+	0 kg CCD+	0 Mg CCDw	0 kg C00+	0 kg C00ae		/	5,006 kg C03+	0 kg C00w	0 kg C03+	0 kg/CCO+		-017,2013g-0103
33	Superdisdure Opper Pitors	0 kg C02+	3,237,600 kg C00+	119,792 kg CCO+	d kg CCDw	0 kg CCOa	0 kg CCD+	0 kg CCDw	0 kg C00e	0 kg C00w	\ /	,	69,808 kg C00w	0 kg C00w	0 kg C039	0 kg:CCO+		MARKET No. CO.S.
2.3	Superducture Red	0 kg 003w	\$79,399 kg CCOa	19,256 kg CCO+	d kg CCDe	0 kg CCO+	0 kg CCD+	0 Mg CCDw	16,672 kg CCO#	0 kg C00ae	1 \		0 kg C03+	0 kg C00w	0 kg C03+	0 kg/CCO+		.79,0014g.003
2.4	Superdisables Stars and Manya	0 kg C02+	100,881 kg CCO+	8,899 kg C00w	d kg CCDw	0 kg CCOa	0 kg CCD+	0 kg CCDw	0 kg C00e	0 kg C00w	1 /		0 kg C03+	0 kg C00w	0 kg C039	0 kg:CCO+		-02,479 kg C00
2.5	Superdiculare External Walls	0 kg 003w	1,232,841 kg CCDv	8,889 kg CCOw	d kg CCDe	0 kg CCO+	0 kg CCD+	0 Mg CCDw	6,032 kg C00w	0 kg C00ae	1 / \		2,000 kg C02+	0 kg C00w	0 kg C03+	0 kg/CCO+		279,003 kg 0000
2.4	Espendrudure Windows and Esternal Doors	0 kg C02+	202,750 kg CCO+	633 kg CCOw	d kg CCDw	0 kg CCOa	0 kg CCD+	0 kg CCDw	166,273 kg CCO+	0 kg C00w		\	0 kg C03+	0 kg C00w	0 kg C039	0 kg:CCO+		-21,000 kg C03
27	Superdisable Internal Walls and Partitions	0 kg 003w	666,363 kg CCO+	2,277 kg C00w	d kg CCDe	0 kg CCO+	0 kg CCD+	0 Mg CCDw	68,800 kg CCO#	0 kg C00ae	1 /		184 kg C00w	0 kg C00w	0 kg C03+	0 kg/CCO+		-84,400 kg C005
2.8	Rigentriature Irlenal Dison.	0 kg C02+	316,838 kg CCO+	1,039 kg C00e	d kg CCDw	0 kg CCOa	0 kg CCD+	0 kg CCDw	316,838 kg CCO+	0 kg C00w	1 /		160 kg C00+	0 kg C00w	0 kg C039	0 kg:CCO+		HOME CO.
3	Hookes	0 kg 003w	362,382 kg CCO+	1,635 kg C00w	d kg CCDe	0 kg CCO+	0 kg CCD+	0 Mg CCDw	623,000 kg/CCOw	0 kg C00ae	1 /		323 kg C00w	0 kg C00w	0 kg C03+	0 kg/CCO+		110,003,000
4	PESngs, Sarrollings & equipment	0 kg C02+	210,366 kg CCO+	677 kg CCOx	d kg CCDw	0 kg CCOa	0 kg CCD+	0 kg CCDw	80,796 kg CCO+	0 kg C00w	V		1,279 kg C02k	0 kg C00w	0 kg C039	0 kg:CCO+		-21,317 kg-C05e
1	Brokes (SEP)	0 kg C03w	1,023,231 kg C08w	2,002 kg C00w	d kg CCDe	0 kg CCOx	0 kg CCD+	0 kg CCDe	1,035,791 kg CCOv	0 kg C00#	8,607,366 kg C03+ 14,363,566 kg C00+	38,137 kg C00a	0 kg C02*	0 kg C00w	0 kg C03+	0 kg/CCO+		299,7413g-003
	Performated Buildings and Building Units	0 kg C02+	6 kg C03 w	0 kg 000w	d kg CCDw	0 kg CCOa	0 kg CCD+	0 kg CCDw	0 kg C00e	0 kg C00w			0 kg C03+	0 kg C00w	0 kg C039	0 kg:CCO+	0 kg CCOx	# lig CODs
7	Hark to Existing Eudding	0 kg C03w	6 kg C02k	0 kg C00e	0 kg CCDe	0 kg CCOs	0 kg CCDs	0 kg CCOe	0 kg 000e	0 kg C00e	· ><	_	0 kg C03+	0 kg C00w	0 MJ C033+	g Mil CCO+	d kg CCO+	8 kg COSe
•	Edward works	0 kg C02+	123,193 kg CCO+	8,121 kg C00w	1,007,000 kg/C00+	0 kg CCOa	0 kg CCD+	0 kg CCDw	0 kg C00e	0 kg C00w	·		4,220 kg C02x	0 kg C00w	0 kg C039	0 kg:CCO+		40,731 kg C05e
	707AL by CO3e	0 kg C00s	13,380,430 kg CO3+	287,329 kg C02e	1,007,000 kg C00a	0 kg CO3e	0 kg CO2e	0 kg C00e	2,100,640 kg COOs	0 kg CCOs	22,960,936 kg CO3e	38,137 kg CO3e	94,083 pf CCO+	0 kg CCG+	0 M ⁸ C00h	0 kg C03+		3,746,887 kg CO
	TOTAL : by CCOwled CSA	0 kg C00wind 0M	242 kg CCOwing GM	B kg CCOwing GIA	19 kg C03ele2 GIA	0 kg CO3kW2 GIA		O kg CODeleZ GIA	39 kg CCOwinZ GIA	0 kg CCOww2 GM	418 kg COOwing GIA	1 kg COOwing GIA		********	******	*********	************	48 kg CO2wind O

**Sport on-description of values for both material and operational enhances using current data or the electricity gold.

**Ego has been been an electricist sport and on on CTS because the measured building by the expension ye positive or these three SE pears, but table should be supped and the SE pears, but table should be supped and the SE pears, but table should be supped and the SE pears are not supped and the SE pears are not supped and the supped and the SE pears are not supped and the SE pears are n

	OWF POTENTIAL FOR ALL LIPE CYCLE BODGLES' (H)C034)	Requestered for Mosental	Product stage (kgCCCx)	Construction process s	dage (kgC03e)	Use singe (NgCOSH)						End of Life (EnL) stage (kgCCDs)					Benefits and loads beyond II system boundary (kgCCO)	
		(NgCCOs)		Module A					Mode	d+ E				Medule	c			Models 2"
ding stem	nt category		part to part	(ME)	SANS	proj	last	(MX)*	(84)	(may	100	(MC)	fest	(CI)	(03)	test		
61	Denotition, Trans Hazandous Conferencies Mideral Traditional												0 kg C02w	0 kg 000+	0 kg C03+	0 kg CCO+	0 kg CCOv	BlgC05r
	Major Demolton Works												0 kg C03w	0 kg 000+	0 kg C03+	d Miccon	0 kg CCDw	Day CCD+
6.3	Temporary Support to Adjacent Structures.	0 kg C03w	0 kg C02k	0 kg C00w	0 kg CCDe	0 kg CCOe	0 kg C00e	0 kg CCOx	0 kg CC0+	0 kg CCOa		/	0 kg C03+	0 kg CC0+	0 kg C03+	a siliccon	0 kg CCOv	Eng CODe
0.4	Specials Crown Wats	0 kg C03w	0 kg C02 w	0 kg C00w	0 kg CC0+	0 kg C00w	0 kg CC0+	0 kg CCOx	0 kg CC0+	d kg ccox	\	/	0 kg C03+	0 kg C00w	0 kg C03+	0 kg/CCO+	d kg CCOv	6 kg C03 k
6.3	Tempurary Disension Works	0 kg C03w	0 kg C02 w	0 kg C00w	0 kg CC0+	0 kg C00w	0 kg CC0+	0 kg CCOx	0 kg CC0+	d kg ccox	\	/	0 kg C03+	0 kg C00w	0 kg C03+	0 kg/CCO+	d kg CCOv	Day CCDs
-1	Marindan	0 kg C03+	4,850,839 kg CCD+	97,666 kg CCO+	0 kg CCOw	0 kg C00w	0 kg C03e	d Mil CCOM	14,672 kg/C00e	d kg CCOx	\	/	30,890 kg C00+	0 kg C00w	0 kg C03+	0 kg CCO+		-1,888,887 kg CCOw
2.1	Espendualus Franc	0 kg C03w	BET/EDD No CCOM	28,811 kg/CC2+	d kg CCOw	0 kg CCOs	0 kg C03+	0 kg CCOx	0 kg CC0+	d kg CCOx		/	5,000 kg C02w	0 kg C00w	0 kg C03+	0 kg CCO+		-187,208 kg CCD+
2.2	Rependudure Upper Plans	0 kg C03+	3,237,600 kg C00+	115,782 kg C03e	0 kg CCOw	d kg CCOx	0 kg C03e	d Mil CCOM	0 kg CC0+	d kg CCOx	\ /	′	49,805 kg C00+	0 kg C00w	0 kg C03+	0 kg CCO+		668,981 kg CCD+
23	Espentrature Kad	0 kg C03w	179,399 kg CCOs	19,254 kg CCO+	0 kg CCDe	0 kg CCOe	0 kg C00e	0 kg CCOx	16,672 kg/CCO#	0 kg CCOa			0 kg C03+	0 kg CC0+	0 kg C03+	a siliccon		-79,520 kg C02e
2.4	Supenhubre State and Ramps	0 kg C03w	100,881 kg CCO+	5,899 kg C00e	0 kg CCDe	0 kg CCOe	0 kg C00e	0 kg CCOx	0 kg CC0+	0 kg CCOa	\wedge		0 kg C03+	0 kg CC0+	0 kg C03+	a siliccon		32,676 kg C03e
2.5	Espenisulus Edenal Wals	0 kg C03w	1,233,841 kg C00w	E,RES Ng COOM	G kg CCOw	0 kg CCOx	0 kg C03+	0 kg CCOx	4,512 kg CCO+	d kg CCOx	/ /		2,000 kg C02w	0 kg C00w	0 kg C03+	a seccos		276,055 kg CCDv
2.4	Espendualize Windows and External Disors	0 kg C03w	202,750 kg CCO+	GIS Ng CCOa	G kg CCOw	0 kg CCOx	0 kg C03+	0 kg CCOx	164,272 kg CCO+	d kg CCOx		\	0 kg C03+	0 kg CC0+	0 kg C03+	a sé coas		23,883 kg C02e
2.7	Superdisables Internal Walls and Parlitions	0 kg C03+	616,343 kg CCO+	2,077 kg C00e	0 kg CCOw	0 kg CCOx	0 kg C03+	0 kg CCOx	68,806 kg CCO+	d kg CCOx	/	_ /	184 kg C00w	0 kg CC0+	0 kg C03+	a sé coas		46,632 kg C03+
2.8	Rependuature Idenal Disos	0 Na C029	235.838 to CCO+	1.029 to C02e	O No CCDe	0 No CCOn	0 to CCDe	0 No CD0+	216,888 Nr CCO+	0 No CCO+		\	160 Na CODe	0 No C00#	0 Na C024	0 No CCO+	***********	106.266 Na CCDv

- 6				1								. /	` `						
		Position	0 kg C03w	362,310 kg CCO+	1,03 kg C00e	0 kg CCDw	0 kg CCO+	d by CCD+	d My CCOM	623,066 kg CCO+	0 kg CCO+	/	_ /	333 kg C00+	0 kg (000w	0 kg C03w	d Mig CCCO+		-116,505 kg C00+
П	4	PESings, Sancatings & equipment	0 kg C03+	280,266 kg CCO+	ETT by CCOx	0 kg CCD+	0 kg CCOx	0 kg CCD+	0 MP CCOM	80,784 kg CCOx	0 kg CC0+		,	1,279 kg C02v				***************************************	29,357 kg C02e
		DECKER (DEP)	0 kg C02#	1,003,231 kg C00+	2,002 kg C004	0 kg CC0+	G kig-CCCO+	0 kg C03+	g MPCCOP	1,635,791 kg CCO+		2,717,600 kg C02w 4,931,565 kg C02w		699 C039		6 Mg CCCSM			GRE, FREI Ng CODA
- 1	4	Performance Buildings and Building Units	0 kg C03+	0 kg C03 k	0 kg C00w	0 kg CCDw	0 kg CCOx	0 kg CCDe	0 kg CCO+	0 kg C00e	0 kg CCOx			0 kg C039	0 kg CC0+	0 kg C03w	d by CCO+	d kg CCDv	Eng CCDe
П	7	Mark is Existing Eulding	0 kg C03+	6 kg C02 k	0 kg 000e	0 kg CC0+	0 kg CCOs	0 kg CCDe	d Miccon	0 M2 CCD+	0 kg CCOe	\sim	_	0 kg C03+	0 kg 000w	0 x8 C03*	g Milicoon	d #8 ccox	Eng CCD+
ı		Edward works	0 kg C03w	123,193 kg CCOw	8,731 kg C00e	1,007,000 kg CCO+	0 kg CCOe	0 kg CCCa	0 kg CCOx	0 kg CCD+	0 kg CCOa			4,220 kg C02+	0 kg 000+	0 xg C03+	d by CCO+	***************************************	-60,726 kg C03e
П			0 ha CODs	13.385.630 to CO2e	287 328 to C02e	1.087.000 to CCCo	0 to C02s	0 to C02s	9502 950	2.120.000 to CCOs	0 No CCDs	7.368.886 Na CODe	28.127 to CCOs	94.083 Na CCOx	5 to 5000a	****	A ha COTTA		GOOD TO CODE
ш			and com			.,,,					11411111								
ł		TOTAL - Ny COMM-2 CM	a sig coosing ass.	262 kg CCOwing GIA	E by CODAINS COA	19 kg CCOaled CEA	o ag Cosavas ora		O Ng CODWINS CAN	39 kg CCOwinZ GM	0 kg CCOwwo GIA	133 kg CODwind DIA	1 kg COOwing GIA	***************************************					48 kg CO2em2 GM
	vies.	TOTAL - Ng COOMING COM	e są coswina aus.	242 kg CCOwin2 GIA			e ng Coshwa dia									***********		**********	
		to FAA 1 by cooking cor	a ky coskina ask	242 kg CCOwini2 GIA	8 Ng CCDw/w2 GAA	19 kg CODeleZ GIA			0 kg CODalnZ GIA	38 kg CCOwin2 GIA				***************************************				**********	48 kg CO2wind GM.
- 1	T you have ent	TOTAL - Ng COOMING COM	d kg CODwind GM. strip expected decidorolation uned lodding the expectancy in	343 kg COOwing GMA of the electricity grid. greater or less than 60 years, 9	B Ng CCOWNS GEA.	19 kg CODeleZ GIA			0 kg CODalnZ GIA	38 kg CCOwin2 GIA								**********	

Purring appropriate on the control of appropri	
	the loose from Reserv States to contact to Conser Economic State in the work. We come Suprement the Suprem Special for Suprem Special for Suprement States (Suprement States) and Suprement States (Suprement States).
	GPM
Agent y grower is review,	
	18 JU/2020
	n.p. 83.65: 1003, with additional guidance from ECS Professional Statema
Eulorona study period (Fred 60 years)	Ni para.
	CoeClot LCA. Carbon passworeni, RCS Tael
Enums of surfect data for materials and products	Type II EPOL (BIES 1080), Type II EPOL (BICC100), Type II EPOL (BIC100), EPOL II Date to 180 1600, 1404,
EPC delahara was	One Clob LCA generic communicate materials dalabase, Enviroles, EdPosmolocolin, GBC Engans, and AENDY, BIALEPO, CENSA, CAP Habitat, EPO Dammels, EPO Saly, SEPS

Endowded W.C. combusines (Generalment I) N.E. This borns for W.C. benefitier for the discolopment. The visuals is	Falls and W.C. university (incurrence I) A.E. This form to P.C. Canadra for the development: The models from Incurrence I series are automatically propriate from													
	Wester St. All	Module B1.85	Marketo MART	Mondada C1 C4	Montale D									
70 Eas. by COve	50,925,414 kg CGDe	15,208,670 kg CCCw	30,071,360 kg CCOw	3,340,317 kg CCDv	.10,300,675 kg CDOv									
TOTAL kg CO pine "GIA	616364	194.005	363.303	27.04	-126.60A									
Comparison with PEC techniques year Apparells 2 of the guidernel P Assessment Costs stad to below decign decisions.	tick, duranament I mel used to billiom design decision													

Estimated NVC emissions (Assessment 2) N.E. The results from Sopranteri 2 below are automatically (populated here.				
	Medials & LAC	Marketo B1.85	Married St. St.	Module C1.C6	Montale D
TOTAL by COve	50,900,814 kg CGDe	(6,208,600 kg CCOv	7,601,660 kg CCDw	2,363,367 kg C03w	****
TOTAL kg CO _{ptim} * Gal	61	100		27	-04
Comparison with Mt.C turn broads (see Appoints 2 of the guidance) if Bouncoment 2 was used to inhore design decisions.	Supplied to reaction for a	has not been accounted	to in the benchmarked	and the transport of the transport	nata. Passa nati

Key sile apperturities and constraints in reducing VI.C extension	pojet a pri detrollen ha so jel som ovise blante oder te denn for poletid questig vil audelit meteta hat tils med i denn bla Evenigenet des has het segentide, blacker skulet enhaltet skele skulet het den beskrivet denge sispen by endpolg PCPs vilha propose allede glaver und enhantet skulle voll et se seek forskoler sjenskoler. Men heldings, De fildlings and de flottanets helding ens skul helding skulet skulet send some skulet en somet, melsen glav den	t services, Security and 10 and products, and
	Artin	WLC reduction (kg CO _p aim ⁶ GM)
	Indianton of Folial year Fall M.	
the MAG reductions		
South before construction to makes the development's	Further potential apportunities	WLC restantion patential (kg CO raim*
whele the resis serior emissions, including the WLC		
	Sophine specification of durable and solved materials and products to national EUC embasing	

MATERIAL GOA	ATTY AND END OF LIFE SCENARIOS	Product and Construction Dags	Martin Al	Assumptions made with respect to		Earselite and insets beyon (Mont	of the system boundary site (I)
Bulliding stores		Material type	Material quantity (kg)	maintenance, repair and replacement reprine (Westale II)	Material and of the second on (Medicin C)	Entimated resoults materials (kg)	Estimated recyclable materials (kg)
		Brashdown of material type in mach nategory (mach more loss of manifed) a.g. Committe a.g. Rainforcement a.g. Paramete	0000 in 0000 in 0000 in	For all primary inciding systems, joinstone, substructure, arranges, ISTP services, internal fecultural	Online had dilit's sensite as per populs Crede Eurosey Salement	234 244 244	201a 84g 64g
61	Semelition: Train Planar Book Contaminated Materia Programmed			$\overline{}$			
40	Slajo Damattan Warta						
63	Temporary Eupport in Adjacent Elmanums						
64	Specials/ Ground Rivin			<i>/</i> \			
	Baltatrastane	Contrate Steel, Insulation, Time	36.627.666.kg	Personal	Regarder Conseal, Conseal, error, consecutation, consecutation of special principles along passes. Zero & Local	Day	20,002,000.4
31	Superdicatore Prana	Controls, Sinci			replace primary grand Recording of distriction, wheat consent frame. Day & Least	Ole	G/MI atting
33	Esperaturiture Upper Plans	Read upti	74,862,271 kg		Respring of Committee Committee springer grand Respring of sheet	Olig	604087kg
33	Supervisusture Real	Controls, Simil Insulation, Tim.			replace primary grant Remotive of ward	Dig	2,610,0224g
24	Supervisoriere States and Europe	Contrate, Sinei	2,774,648 kg		respecta conses carello estas sistes carello carello capitare miser primary parel Especia of dari	Dig	2,210,008Ag
34	Superinuture Edward Halo.	Manny, Carrolle, Insulation, Passerboard	15,604,276 kg	35.40	require comme called the title county more open- princy parts	Dig	Q,603,621kg
34	Supervisusture: Windows and Edenal Doors.	Elading serial alumbitions	(1803Glag	26.46	Respring of aluminium, sized	Dig	101,80kg
37	Experience Herná Kalcani Patition	Finish dat gladehnad	3,787, 677 kg	AD for planterioransi	Encycling of planter in replace primary grand Wood products in being instrument for energy recovery	Olig	2,660,742kg
38	Expensionalizer Internal Discre				-	Olig	Ging
- 3	Pinishas	Paint, Floor countriege, Trian	3:307,101 kg	15 pears for paint	-	Dig	2,626,721 kg
	Pilings, funishings & equipment (FFE)	Summum, Steel, Electron shot, Culturised shot, Segar maked, Goggar unmaked, Brain, 2m, Least	38,308 kg	26.60 years	Respiring of electricism, sheet, copper, brane, Ziro & Lead Managed of electricism, sheet, copper, brane, Ziro & Lead Month and delicitism, sheet, copper, brane, Ziro & Lead	Dig	21,366kg
4	lavium (HEP)		E442/19g	ates and other head antifers. His years, for electrical	Recycling for Alamonium, Stand, Standards sheet, Calcium/and sheet, Copper- mated, Copper-promoted, Breen, Zinc, Lead	Dig	4,010,3304g
4	Preliabilisated Buildings and Building Shibs						
	Not to Easing Subling				-		
	Esternal profes	Ball, Commis	6,654,626 kg	El para	Recyclog of Committe, Committe, Bloke, Stone, Committe, Stone, Exphalt to replace primary grants	Ole	6,321,2264g
		10144	(7) (G3G kg			Olig	(36,62 (J164g
		Material Internally (highed GA)	2,867 agind Gas.			Daying GAL	1,654 hg/m2 GM.

Confirm here whether Assessment 1 o Assessment 2 (see below) is to form the

ESSMENT 1 - current status of the electricity gri

	SMP POTENTIAL POR MIL LIFE CYCLE MODULE (MgCCCM)	Separatural or kingenia surban (reprint value) (agCCAs)	Product slage (legCCSs)	Complession presents	ninge (kgCCOn)				tive steps (kgCCC	-				Book of Life (Bob)	stage (kgCGSa)			Baradin and leads inspend the system insurably (kgCObs)
				Medick A					Models E					Mode	ale C			Water D
liday rism	of calegory		(Art) to (Alt)	940"	μq	(84)	(84)	pay	per	lad.	peq .	(87)	(04)	(64)	(CII)	194		
61	Emailtan Tasa Pasarasus Contanosana Matera Emailment												6 kg 000w	0 kg GSSk	8 kg 0004	Ging CCO	6 kg CODe	
	Major Demolition Works									_			6 kg CODe	0 kg CCSA	8 kg 0004	6 kg CGSe	8 kg CODe	
63	Temporary Support to Adjacent Structures	8 kg CCOw	ONECCO	0 kg CCCw	6 kg CGSs	8 kg CODe	0 kg CCOk	GagCCon	6 kg CGSe	8 Mg COOM			8 kg CCOw	0 kg CCSA	8 kg 0004	6 kg CGSe	8 kg CODe	
64	Specialist Ground Rivins	8 kg CCOw	ONECCO	0 kg CCCw	6 kg CGSs	9 M CC04	0 kg CCOk	GagCCon	6 kg CGSe	8 Mg COOM		/	6 kg CODe	0 kg CCSA	8 kg 0004	6 kg CGSe	8 kg CODe	
64	Temperary Disension Works	8 kg CCDs	Olycobe	0 kg CCCW	6 kg CGDs	916 000	O Ng CCON	6 kg CCOx	6 kg CGSe	8 kg COOk		/	6 kg CODe	0 kg 0550e	8 kg 0004	6 kg CGSe	8 kg CODe	
- 1	Balletrarium	6 kg CODe	7,360,760 kg CGSe	367,610 kg C02w	Ging CCOm	0 kg CCOk	0 kg CCOk	Ging CCOm	67)163q GSSs	6 kg 000k		/	201,236 kg CGSx	0 kg GSSk	8 kg CCO4	G big CGSs	7,600,733 kg C02w	.4,410,000 kg CCC
24	Supervisolant Preme	6 kg CODe	3,507,966 kg CGSw	GE, BM kg CCOx	Ging CCOm	0 kg CCOk	0 kg CCOk	Ging CCOm	6 kg CGSa	6 kg 000k		/	180,342 kg CGDs	0 kg GSSk	8 kg CCO4	G big CGSs	3,813,888 kg C02w	462,674 kg CO3e
33	Supervisolant Upper Florin	6 kg CODe	(3)86,685 kg CGSw	667,671 kg C02w	Ging CCOm	0 kg CCOk	0 kg CCOk	Ging CCOm	6 kg CGSa	6 kg 000k	\ /		AH GEAR by CEEN	0 kg GSSk	8 kg CCO4	G big CGSs	14,000,007 kg C02w	3,610,865 kg 000w
23	Supervisoration Real	6 kg CODe	(015,286 kg C03e	15,661 kg CO2w	Ging CCOm	0 kg CCOk	0 kg CCOk	Ging CCOm	67)17kg GSSs	6 kg 000k			38,610 kg CGSk	0 kg GSSk	8 kg CCO4	G big CGSs	(ITE/DESpCCOv	.632,667 kg CO3e
	Supervisolant Stains and Famps	6 kg CODe	384,000 kg CODe	21,885 kg C02w	Ging CCOm	0 kg CCOk	0 kg CCOk	Ging CCOm	6 kg CGSa	6 kg 000k			Motified by CODe	0 kg GSSk	8 kg CCO4	G big CGSs	AND SET by CODe	.82,320 kg CO2e
	Superstruture Esterná Rain	6 kg CODe	6,040,580 kg CG0w	43,346 kg CO2w	Ging CCOm	0 kg CCOk	0 kg CCOk	Ging CCOm	16,712 kg GSSk	6 kg 000k	/ \		200,843 kg CGDs	0 kg GSSk	8 kg CCO4	G big CGSs	6,344,364 kg C02w	. (,105,103 kg:000w
	Supervisorium Windows and Edward Doors.	6 kg CODe	1,1363/84gCG2e	3,365 kg CO2w	Ging CCOm	0 kg CCOk	0 kg CCOk	Ging CCOm	918,000 kg 000m	6 kg 000k	/	\	AE,715 kg CGDe	0 kg GSSk	8 kg CCO4	G big CGSs	2,103,877 kg C02w	-GC384g GG2a
27	Expensionless Internal Right and Partitions	6 kg CODe	2) 47,424 kg CGSe	6,000 kg CCDe	Ging CCOm	0 kg CCOk	0 kg CCOk	Ging CCOm	300,544 kg GG24	6 kg 000k	/		141,KDE by CGDs	0 kg GSSk	8 kg CCO4	G big CGSs	2,619,374 kg C02w	210,623 kg CO2e
28	Expensionless Internal Desert	6 kg CODe	1,650,526 kg CGSe	4,711 kg CODe	Ging CCOm	0 kg CCOk	0 kg CCOx	Ging CCOm	1,60,051g 000s	6 kg 000k			FIRTHD by CGDs	0 kg GSSk	8 kg CCO4	G big CGSs	3,624,664 kg C02w	477,643 kg 003h
3	Finishm	8 kg 000w	(\$65)25 kg CG2e	6 HS kg CGSv	6 ing CGSe	G Mg CCCO	0 kg CCOs	Ging CGGs	2,488,664 kg GD 04	6 kg C02k			263,734 kg CGSa	G big GSSs	6 kg 0004	Ging Cities	4,406,688 kg CODe	40 (400 to 000)
	Pittings, furnishings & squipment	8 kg 000w	1,800,000 kg CGDe	2,368 kg C02e	6 ing CGSe	G Mg CCCO	0 kg CCOs	Ging CGGs	656,866 kg GGGs	6 kg C02k		_	21,811 kg CG2n	G big GSSs	6 kg 0004	Ging Cities	2,601,786 kg C02w	.145,614 kg CO3e
	faviors (MIP)	6 kg CODe	4.716.906 kg CGDe	FI(Billing CODe	Ging CCOm	3,363,860 kg CCOx	0 kg CC04	Ging CGGs	6,360,560 tg 000m	6 kg CCOk	20,367,606 kg CCDs 7,681,676 kg CCDs	130,000 kg CGDe	185,000 kg CGSH	Ong CEE	8 kg 0004	6 kg CGSe	AK, GRA, KDK kg CCChr	.1(707)00 kg 000w
	Professional Buildings and Building Units	6 kg CODe	GlagCCCa	0 kg CCGw	Ging CCOm	0 kg CC0k	0 kg CC04	Ging CGGs	6 kg CGSa	6 kg CCOk		_	6 kg 000w	0 kg CESA	8 kg 0004	6 kg CGSe	Sing CODe	Ging CCOm
	Note to Existing Building	6 kg CODe	Olyccox	0 kg CCGw	Ging CCOm	0 kg CCOk	0 kg CCOx	Ging CCOm	6 kg CGSa	6 kg 000k	><	_	6 kg CODe	0 kg GSSk	8 kg CCO4	G big CGSs	6 kg CCDv	Ging CCOm
	Estamal acutes	6 kg CODe	ADE, DEL NIGODO	18,361 kg C03w	4,010,756 kg CGSe	0 kg CCOk	0 kg CCOx	Ging CCOm	6 kg CGSa	6 kg 000k		_	14,642 kg CGSH	0 kg GSSk	8 kg CCO4	G big CGSs	A, SOA, KING Ng COOM	.140,415 kg CO2e
	10184 kg 003e	e ng coon	46,790,700 kg 000w	CATHABE NO COOL	4,850,760 kg CGSu	3,363,660 kg CCCs	6 kg CGSe	6 kg CCCw	ocuments agreed	day cook	26/836/3614g CDSe	00,89 kg 000s	******************************	Ekg CDDs	0 kg COOk	8 kg CGSe	66,667,762 kg CGGs	.46,386,676 kg CGSs
	195AL . kg 003em2 03	0 kg COOwing Gills	SEE by COOking GA.	G by COSend GA	all by Colored GM.	46 kg CCOwing GA	Eng CCOwing DIA	Ong Column Dis.	Test by Colorina Glid.	0 kg CODwind Dilk	Make Cooking this	3 kg CCOwing GA	************		***************************************	************	CORNER CODE NO COL	ASSESS COSMISSION

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	POTENTIAL POR MILL LIFE CYCLE MODILE (hgCCCh)	Sequestaned jerkingsniej sarken (vojstve volet (kgCGM)	Product steps (tgCCCs)	Construction process	ninge (kgCCCkr)				tine steps (kgCCC	-				Ered of Life (Ere)	stage (hgCGSa)			Samelin and leasts large the system becoming (kgCODe)
				Montale A					Montain E					-	de C			Martin 2
of the section	alapa y		let in let	94'	м	940	(64)	pay	947	(80)	M	(87)	(FI)	50	(CI)	124		
64	emolities: Total Planardous Contaminated Ulateri malment												8 kg C02w	O big CCCO	8 kg CCO	6 kg CGSe	6 kg CODe	
63 6	ajor Esmalition Works												8 kg 000w	0 kg CCOx	8 kg 0004	Ging CCOm	8 kg CODw	
ia 6		8 kg CODe	OngCCOm	0 kg CCOv	Ging CCOm	8 kg 000e	8 kg 000w	Ging CCOm	0 kg CCCw	OlegCCOm	\		8 kg 000w	0 kg 0550	0 kg 0004	G big CGSa	8 kg 000w	
64 1	periabil Ground Rinks	8 kg CODe	OngCCOm	0 kg CCOv	Ging CCOm	8 kg 000e	8 kg 000w	Ging CCOm	0 kg CCCw	OlegCCOm	\		6 kg C02w	0 kg 0550	0 kg 0004	G big CGSa	8 kg 000w	
66 B	emperary Encention Works	8 kg CODe	OngCCOm	0 kg CCOv	Ging CCOm	8 kg 000e	8 kg 000w	Ging CCOm	0 kg CCCw	OlegCCOm		/	6 kg C02w	0 kg 0550	0 kg 0004	G big CGSa	8 kg 000w	
	delnature	8 kg CODe	7,360,792 kg CGSe	267,610 kg C00w	Ging CCOm	8 kg C02w	S kg CCOw	Ging CCOm	67,116 kg C00w	GagCGSe	\	/	201,236 kg CGSk	0 kg 0556	0 kg 0004	G big CGGs	7,600,750 kg C02w	-CATCORNE
	perindes Fune	8 kg CODe	3,507,964 kg CGSw	CDE, GRAL by COOM	Ging CCOm	8 kg 000e	8 kg 000w	Ging CCOm	0 kg CCCw	GlagCCCin	\	/	180,342 kg CGGs	0 kg 0550	0 kg 0004	G big CGSa	3,813,888 kg C02w	AGDING
22	penindra UpperFlore	6 kg CCDe	13,186,628 hg CGSw	667,671 kg C00w	Ging CCOm	8 kg CODe	8 kg 000w	Ging CCOm	0 kg CCOv	GlagCCOm	\ /	•	814,648 kg CGDs	0 kg CCSA	8 kg CCO	649 0004	14,880,667 kg:000w	3,410,000 kg
	operaturism Real	8 kg CODe	(,015,246.hg CGS+	15,601 kg CODe	Ging CCOm	8 kg C02w	S kg CCOw	Ging CCOm	ET, HIT Mg CODe	GagCGSe			Michig Con-	0 kg 0556	0 kg 0004	G big CGGs	(,176/06 kg 000w	.02,60° kg
	persinature Sain and Europe	8 kg CODe	385,000 kg C00w	21,388 kg C02w	Ging CCOm	8 kg C02w	S kg CCOx	Ging CCOm	0 kg CCGw	GagCGSe			Motified Con-	0 kg 0556	0 kg 0004	G big CGGs	AND SET IN COOK	.63,001 kg
4	periodre Edená Rálo	E Ng CODe	6,060,560 kg CGDe	41,341 kg CCDv	Ging CCCor	8 kg CODe	8 kg CCOw	6 kg CGSe	60,710 kg 000w	GagCCOm	/ /		200,843 kg CG24	0 kg CCSa	0 kg 0004	G Ng C C Co	6,344,384 kg C02w	.4,105,100 kg
٠.	operatrusture: Windows and Esternal Ocean.	6 kg CCDe	1,136,319 kg CG2w	2,365 kg C02w	Ging CCOm	8 kg CODe	8 kg 000w	Ging CCOm	918,684 kg CODw	GlagCCOm	/	\	ALTHING CODE	0 kg CCSA	8 kg CCO	649 0004	2,103,877 kg C03w	-GCRkg
27	openinsher Inlend Risk and Parlitims	8 kg CODe	2) 47,424 kg CGSe	6,000 kg C00w	Ging CCOm	8 kg C02w	S kg CCOx	Ging CCOm	330,664 kg CO2w	GagCGSe	/	\	141,826 kg CGSe	0 kg 0556	0 kg 0004	G big CGGs	2,616,374 kg C02w	240,623 kg
	generaturus Internal Deans	6 kg CODe	1,850,536 kg CGSw	4,711 kg 000w	Ging CCOm	8 kg 002w	8 kg CCOs	6 kg CGSe	1,655,505 kg CCOw	Ging CGGs	/		118/383 kg CGSe	O kg CESh	8 kg 0004	Ging CCO	3,624,664 kg C02w	.417,613 kg S
	Hallan	8 kg C02e	1,865,126 kg CG2e	6 80 kg C03e	Ging CCOm	8 kg C02w	8 kg 000w	Ging CCOm	2,588,866 kg CCDv	Glag CGGa	/	_ /	263,731 kg CG24	O kg CCCo	0 kg 0004	Ging CCO	4,400,600 kg CODe	Al (All kg
	Kings, farelakings & equipment	8 kg C02w	1,800,300 kg CGSw	2,748 kg C02w	Ging CCCin	8 kg 000e	8 kg 000w	6 kg CGSe	606,858 kg CCOw	6 kg CGSe	/		21,010 kg CG2n	O Ng CCCO	0 kg 0004	Ging CCOm	2,601,786 kg C02w	. NAT, COL No
į	eviess (MEP)	8 kg CO2kr	4,794,994 kg CGDe	H, Billing CODe	Ging CCCin	3,363,963 kg C02w	8 kg 000w	6 kg CGSe	6,265,662 kg CCGv	6 kg CGSe	T (00E) (17E kg CGDe 2,63E kg CGDe	130,000 kg CGDe	HER, SHE by COOk	Ong CCO	8 kg 0004	6 kg CGSe	23,175,504 kg 000w	.02032Hap
	whitelested Buildings and Building Units	8 kg CODe	OngCCOm	0 kg CCOv	Ging CCOm	8 kg 000e	8 kg 000w	Ging CCOm	0 kg CCCw	OlegCCOm		_	8 kg C02w	0 kg 0550	0 kg 0004	G big CGSa	8 kg 000w	- Day
	and to Existing Building	8 kg CODe	Oleg CGGs	Ging CCOw	6 kg CGSe	6 kg CODe	6 kg CCOs	6 kg CGSe	Ging CCCov	Glag CGDa		-	S kg CODe	O by CESS	6 kg 0004	Ging CCO	6 kg CODw	2 kg

	Estamal mortes	8 kg C03e	425,001 kg C02w	18,301 kg C03w	4,010,700 kg CGSa	6 kg C02w	6 kg 000w	Ging CCOm	0 kg CCGw	Glag CGGs	·		14,642 kg CGS	0 kg 000	6 kg CCO	Ging CCOm	4,604,684 kg C02w	.140,816.kg:0004
		6 kg CCGv	46,740,700 kg C00a	4,879,865 kg C00w	4,868,799 kg C03w	3,363,060 kg CCOx	8 kg CGSe	6 kg CCCw	or, assisted by COOM	ding CCOs	1604,401 kg CD0s	100,889 kg C00w	***********	64g 000a	0 kg COOw	a ng CGSe	75,667,660 kg CGGs	.46,386,676 kg CGGs
	797.84 - kg 0034/40 G	Ding Colored disk	SEE by CODAING GAL	13 kg CObinG GA	at hy Columb Dis.	AS No COOMING DIA	Eng CCOurse DA	0 kg COlumb Dis.	nessing Colorect Class	0 kg CODwind GIA	Ming COOwing Disk	Jay CCOunce Dia	****		***************************************		BIT NO COUNCE DIA	-1011g C00am201A

**Popular instantiant which has been been presented and representation and representation in the security by a **Popular an intensity and an intensity and a security of the s

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The second particular and the second particu	L N N A
Bref describing of the project	
\$50, pc.	
Authors in contradict or reduction	
Cale of assessment	
	eg SEEN 1975, will-additional guidance from FOCE Professional Statement
Reference study period (if not 60 years,	This sed should only be find in It has obtained solally printed, in the extreme facility (the reportancy, resents or in term famility prints, algorithms, resents or in term famility prints, algorithms, and only an extreme famility and in this case (the first famility of the resent
Zuffester half stand	This should align with the sufficient tool used at outline/tokalled planning staget
Source of carbon data for materials and product	(The guidance for acceptable sources)
EPO didulare used	If using more than one database phase tol all

RLC embelons baseline (basessment 1) (automatically populated from the 'Unfated planning stage' (ab)					
	Modulo AT AS	Module S1 SS	Module BE ST	Module C1 C4	Module D
TOTAL Na CO.A	80,933,614 kg C02w	15,235,670 kg C00w	30,071,362 kg C00w	2,263,267 kg 000w	
TOTAL by CO _P IN' GIR	678.094	184.065	363.203	27.336	125.608

Pust construction WLC extentions (Assessment 1) Assessment 1 Selice)				(automatically pop	clinied from
	Modulo A1 A2	Module 81 83	Module \$5.87	Worker C1 C4	Module 0
TOTAL NI COA	0 kg C02e	0 kg C02 k	PACE	0 kg C00e	0 kg C00e
TOTAL by CO, pine" GIS	#DV/DI	801/0	PACE	sove	approx.
Commentary comparing the post-continuities results against the WLC emissions baseline (Assessment 1) above	(Espirate the researce for any divergences t	on assessment 1 most against the MLC	emissions baseline above(
Economistary comparing the post construction results against the WLC benchmarks (see Appendix 2)	(Copies the reasons for any divergences t	on MLC benchmarks, including against t	the WS.C asymptomic Senschmarks(

WLC emissions baseline (Assessment 2) (automatically populated from the 'detailed planning stage' to					
	Modelle AT AS		Models BE 87	Medule C1 C6	Modele D
TOTAL Na CO,e	80,823,616 kg CC2w	19,239,670 kg C03a	7,161,660 kg C03+		*********
707AL by CO _L ew ^a GIA	613.004	186.069	86.696	27.336	129.608

ost construction W.C embellons (Assessment 2) on Assessment 2 below)				(adimetrially)	populated
	Modelle AT AE	Models ET EE	Models BLE?	Madala C1 C4	Medule D
TOTAL Ng CO _A	0 kg C00e	0 kg C00w	PARLIET	0 kg C00+	0 kg C030+
TOTAL by CO, HIM* GIA	#DIVID!	10NO	PARLIET	#DIVID!	BONIO
	(Explain the reasons for a above)	ny divergences from assess	uned 2 result against the 's	VLC entrators	Lasedine
Commentary comparing the post-construction revults against the W.C benchmarks (see Appendix 2)	(Explain the reasons for a benchmarks, Please role	ny divergences from TELC Out grid decastionisation t	benchmarks, including again as not been associated for	nd the WLC as in the benchma	pradional Re[

or Assessment 2 formed the basis of

Summary of twy actions underlakes to reduce which life	Action underlates	WLC reduction achieved (kg COselos* GLA)					
lycle carbon embotions, including the reductions achieved	This bill does not read to be exhaustive but should identify the authors with the biggest repeats, Insert more trees if needed]						
secons beand from the process of undertaking a WLC	in Design options or materials that could be used, design principles that could be applied. Sount more time if needed						
essessment that will before fedore projects	*						

ALGORITHM: 10	an man case popul														
MATERIAL QUI	ATITY AND END OF LIFE SCENARIOS	Product and Combust	ton Stage (Module A)	Assumptions made with respect to		Benefits and leads beyond the system boundary (Medick D)									
Building elemen		Material type	Material quantity (kg)	maintenance, repair and replacement cycles (Module II)	Material level of life' economics (Module C)	Extinated revealsh materials (kg)	Entimated recyclable materials (kg)								
		Breakdown of malerial type in each salingary priced more time if needed! e.g. Consider	63000 kg	For all primary building systems. (disclare, substitution, envelope, SEP services, internal fisches)	Declary lend of Shr scenario as per properly Circular Economy Statement	ONg	20.04								
		eg Rentruenent eg Formark	2000 Ag 250 Ag			2 kg O kg	13g 13g								
0.1	Sensitive Tues Huserbook Contamousled Material Testiment			\setminus											
1.00	Major Demokrat Works			· ><											
	Secretary Research Landscon Constant			_											
	Specialist Drought Warts														
=	LECOUP .					_									
•	Periadricaled Buildings and Building Units														
7	Mark to Existing Building														
	External works														
		TOTAL	0 kg			Glag	Ong								
		Material intensity (kg/m2 GM)	ADV/OI			ADV/DI	SCA101								

ASSESSMENT 1 - current status of the electricity grid

Control Contro	programs value (ByCCDD)	New Street World	Webste A 5440	[A4]	P1	[82]	(Anti-	Model (E4)*	lent.	(M) (M)	500	(C2)	ical ical	(cel	Sig CCOs	Modulo D'
Joseph Market Blankers State		Nei m Jezi	paq	(845)	P15	(MAZ)	947	947	hel	340 340	100	(ca)	lol	(ce)	0 kg CCOs 0 kg CCOs 0 kg CCOs	Backs 0"
Joseph Market Blankers State															0 kg CCOs 0 kg CCOs 0 kg CCOs	
Joseph Market Blankers State															0 kg CCO+ 0 kg CCO+	
Committee Commit															G kg CCOs	
Dentier Tinks France France France France France France France France France										\ /					d kg CCOa	
se Flaire se Upper Plons se Mod																
re Upper Places												—		-		
re Upper Places																
ne Ked										\ /					0 kg CCO+	
										\ /					0 kg CCOx	
										\/					0 to CCOx	
										X					0 kg CCOx	
re Edward Walls										/ \					0 kg CCO+	
re Windows and External Doors					1					/ \				_		
or Internal Walls and Parlitions					1					/ \				_		
re Neval Doors					1									_	O No CCCOr	
					1					/				_	Ale CTOs	
shings & equipment					-					/	$\overline{}$	 		-		
eng. I spapers					-					,	\	 		-		
-					_					required entering	-					
					_						-					
Dry Eukling											-					
					-						—					0 kg C03e
																epropi epropi
er 16 er 16 er 17 er 17 er 18 er 18	A september of Edition and Particles and Particles and Edition and	of the performance of the perfor									Table Tabl	Total Tota	Total Tota		Table Tabl	1

SSESSMENT 2 - expected decarbonisation of the electricity grid

- an	P POTENTIAL POR ALL LIPE CYCLE MODULES (NJCCO)	Product slage (NgCODs) Product slage (NgCODs) Construction process slage (NgCODs)						Use stage (End of Life (Ent.) stage (kgCCOe)				TOTAL	Benefits and leads begond the system boundary (kgC03e)			
		(regalive value)(kgCDD4)							Model	Module C							
lding stems	tomard salagory		(Art) to (Art)	paq	past	parq	(MO)	(80)*	(Me)	part.	[84] [87]	test	(cs)	lest	tost		Medule D*
61	Sensition Toxic Hazanbour Contenuated Saleral Sestment															d kg CCOs	
6.2	Major Demoklari Works															d kg CCOs	
0.3	Persposary Support to Adjacent Structures										\	/				0 kg CCOs	
0.4	Specialist Circumst Marks										/					d kg CCOs	
6.5	Temporary Disension Works															0 kg CCO+	
1	Existration															d kg CCOs	
	Supentruture Frame										\ /					d kg CCOs	
2.2	Espendualure Opper Pilors										\ /					G kg CCOx	
23	Seperdualize Red										$\overline{}$					d kg CCOs	
2.4	Espendualizer State and Ramps										\wedge					d kg CCOs	
2.5	Espendradure External Math										/ /					d kg CCOs	
2.6	Expendiculars: Windows and External Disors															0 kg CCOs	
27	Superdisable Interest Walls and Partitions															0 kg CCOs	
2.8	Supentrulare Idenal Doors										/ \					d kg CCOs	
3	Firston.										/					d kg CCOs	
4	Fillings, furnishings & equipment										/	$\overline{}$				0 kg CCOx	

	Berries (MEP)										Regulated ensistens. Un	regulated entoscore.				0 kg CCOx	
•	Performance Buildings and Building Units										/					0 kg CCOe	
7	Mark is Existing Eulding										· >	\sim				0 kg CCOs	
-	External works											_	_			0 kg CCO+	
	TOTAL sy CCOs	0 kg CG2w	0 kg C03+	0 kg CODe		Ding CCOx		0 kg CCOv	0 kg C03e	0 kg CCOv	PVALUE				g CO2x 0 kg CO		0 kg CO2v
	10144111150000000000	80000	850/01	100001	E010/05	100000	10000	10,008	100/01	#50/01	E00775	1200	01 20000	F0700	20000 20000	82070	10000
															Mandatan cells for consisten.		