

LOTUS SI V2 CERTIFICATION USER GUIDELINES

LOTUS CERTIFICATION SYSTEM

LOTUS Certification system includes 6 rating systems.





LOTUS SI SCOPE

LOTUS Small Interiors is the LOTUS Rating System to use for single use or mixed-use small-scale fit-out projects such as:

- office spaces
- retail spaces (supermarkets, shops, etc.) and restaurants
- hotels and hospitality spaces (spaces dedicated to businesses within the service industry that provide transitional or short-term lodging)
- educational facilities
- health facilities including clinics, etc.
- dwelling-units in apartment buildings



LOTUS SI ELIGIBILITY

To be eligible for LOTUS Small Interiors, projects must meet the 6 following Eligibility Rules:

1. Fit-out project

The project must be a fit-out project within a building. It may involve the design, construction and commissioning of a new fit-out or the renovation and refurbishment of an existing fit-out.

2. Distinct boundary

The project must be clearly distinct from other spaces within the same building with regards to at least one of the following characteristics: ownership, management, lease, or party wall separation. The owner of the project must be different from the owner of the building.

3. Complete interior fit-out project

The project must include a complete interior fit-out. Project components are not eligible.



LOTUS SI ELIGIBILITY

4. Length of Occupancy

Project should show a 3-years lease contract or commit that the area will be used as the same function for a minimum of 3-years period starting from the achievement of LOTUS Certification.

5. Occupancy rates

The space must have at least one full-time employee working for a year or one resident.

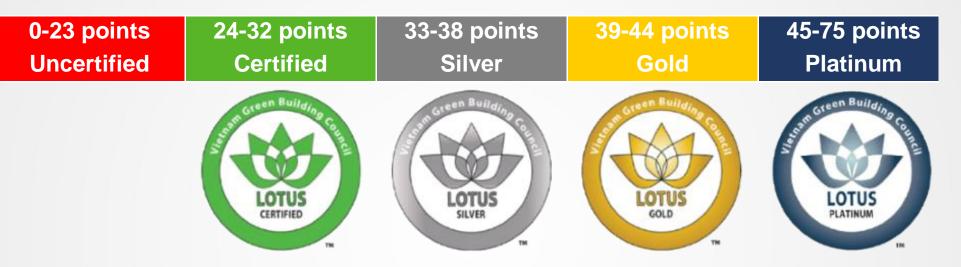
6. Small Interiors

If one of two the following statements is true, then Eligibility Rule 6 is met:

- The project has a gross floor area lower than 1,000 m²
- The project fit-out activities include no more than 2 of the following categories:
 - Installation of artificial lighting fixtures (task lighting should not be considered),
 - Installation of water fixtures/appliances (water dispensers should not be considered)
 - Installation of HVAC systems (split-units should not be considered),
 - Installation of commercial refrigeration systems
 - Installation of partitions, floorings and/or ceilings



POINTS AND CERTIFICATION LEVELS



- LOTUS is a point-based system where projects obtain points for complying with criteria set in the Credits.
- Certification is benchmarked at 40% of the total amount of points. LOTUS Certified represents good practice and a first minimum level of performance for certification
- 4 different certification ratings (Certified, Silver, Gold and Platinum) to recognize projects with higher performance



"SIMPLIFIED" LOTUS SYSTEM

- Target of LOTUS SI: small-scale interior projects.
 Need to simplify LOTUS SI to have an easy-to-use system:
 - User Tool
 - Pre-assessment Stage (for guidance)
 - Single Certification Stage
 - Credits with a Prescriptive Path
 - Best practice credits
 - > No prerequisites
- But remain a holistic system that considers a maximum of sustainable aspects



PRE-ASSESSMENT STAGE

- Optional stage to verify that the project is on right track:
 - realistic targets have been set,
 - > no mistakes have been made,
 - > there is a safety margin for certification, etc.
- Only need to complete the User Tool, no documentation needed
- VGBC to reply in approximately 2 weeks with an assessment report including corrections, advices and recommendations.

 \rightarrow No definitive score or certification will be given at this stage.

VGBC strongly encourages the applicants to submit for this stage.



SINGLE CERTIFICATION STAGE

- Actual submission stage for certification under LOTUS SI.
- Happening at the end of the construction stage.
- Along the User Tool, projects need to submit evidence such as:
 - Photographs;
 - Technical data;
 - Invoices, receipts, etc.

VGBC will issue the LOTUS Certificate upon successful assessment.





PRESCRIPTIVE PATH

The Prescriptive path include simple, prescriptive requirements.

Examples:

 Credit E-1 Space Cooling – Strategy B
 1 point if all air-conditioners have at least 4 stars in the energy labelling program of VNEEP
 2 points if all air-conditioners have at least 5 stars in the energy labelling program of VNEEP

Credit W-1 Water Efficient Fixtures 2 points if all WCs are dual-flush models using less than (or equal to) 3 / 4.5 liters per flush and all urinals use less than (or equal to) 3 liters per flush 1 point if all shower heads have flowrates lower than (or equal to) 0.14 liters per second





BEST PRACTICE CREDITS (BPC)

- 10 BPC rewarding up to 11 bonus points for achieving best practice in design and construction
- BPC often require extra calculations or sophisticated documentation
- BPC are not easily achievable for most projects
- Overall certification level is not affected by the BPC which offer "bonus" points



LOTUS SI V2 CATEGORIES



Energy 16 points + 2 bonus points



Water 6 points



Materials & Resources 12 points



Performance

4 bonus points



Health & Comfort 12 points + 5 bonus points



Site & Environment 7 points + 1 bonus point



Management 7 points + 3 bonus points





ENERGY

Weight: 27% of the overall LOTUS rating Points: 16 points + 2 bonus points

Aim: To monitor and reduce the energy consumption through the use of natural ventilation and the installation of energy efficient equipment (HVAC, lighting, appliances, etc.).

Credit	Available points
E-1 Space Cooling	6
E-2 Artificial Lighting	5
E-3 Energy Efficient Appliances	4
E-4 Energy Monitor	1
E-BPC-1 Energy Controls	1
E-BPC-2 Water Heating	1
Total	16 + 2 bonus





WATER

Weight : 10% of the overall LOTUS rating Points: 6 points

Aim: To reduce the water consumption through the use of water-efficient fixtures and to reduce consumption of bottled drinking water.

Credit	Available points
W-1 Water Efficient Fixtures	5
W-2 Drinking Water	1
Total	6





MATERIALS & RESOURCES

Weight: 20% of the overall LOTUS rating Points: 12 points

Aim: To reduce the use of high embodied energy materials and to minimize the use of natural resources.

Credit	Available points
MR-1 Sustainable Materials	4
MR-2 Sustainable Furniture Products	4
MR-3 Fit-out Waste	2
MR-4 Operation Waste Management	2
Total	12





HEALTH & COMFORT

Weight: 20% of the overall LOTUS rating Points: 12 points + 5 bonus points

Aim: To ensure high indoor environmental quality

Credit	Available points
H-1 Fresh Air Supply	1
H-2 Low-VOC Emissions Products	4
H-3 Interior Plants	1
H-4 Green Cleaning	1
H-5 Daylighting	2
H-6 External Views	2
H-7 Thermal comfort	1
H-BPC-1 Indoor Air Quality	2
H-BPC-2 Lighting Comfort	1
H-BPC-3 Acoustic Comfort	1
H-BPC-4 Post-occupancy Comfort	1
Total	12 + 5





SITE & ENVIRONMENT

Weight: 12% of the overall LOTUS rating Points: 7 points + 1 bonus points

Aim: To protect the ecology of the site, mitigate the environmental impacts and minimize pollution.

Credit	Available points
SE-1 Green base building	3
SE-2 Tenancy lease	1
SE-3 Green Transportation	2
SE-4 Refrigerants	1
SE-BPC-1 Facilities and amenities for occupants	1
Total	7 + 1 bonus





MANAGEMENT

Weight: 12% of the overall LOTUS rating Points: 7 points + 3 bonus points

Aim: To ensure that, throughout the project, all targets set up for the various stages (design, construction and operation) are competently and effectively managed.

Credit	Available points
Man-1 Construction Stage	2
Man-2 Commissioning	1
Man-3 Maintenance	2
Man-4 Green Awareness and Behavior	2
Man-BPC-1 LOTUS AP	1
Man-BPC-2 On-going Commissioning	1
Man-BPC-3 Independent Commissioning	1
Total	7 + 3 bonus





EXCEPTIONAL PERFORMANCE

Points: 4 bonus points

Aim: To reward enhanced performance and innovative solutions not addressed in LOTUS.

Credit	Available points
EP-1 Enhanced Performance	Α
EP-2 Innovative Solutions	4
Total	4



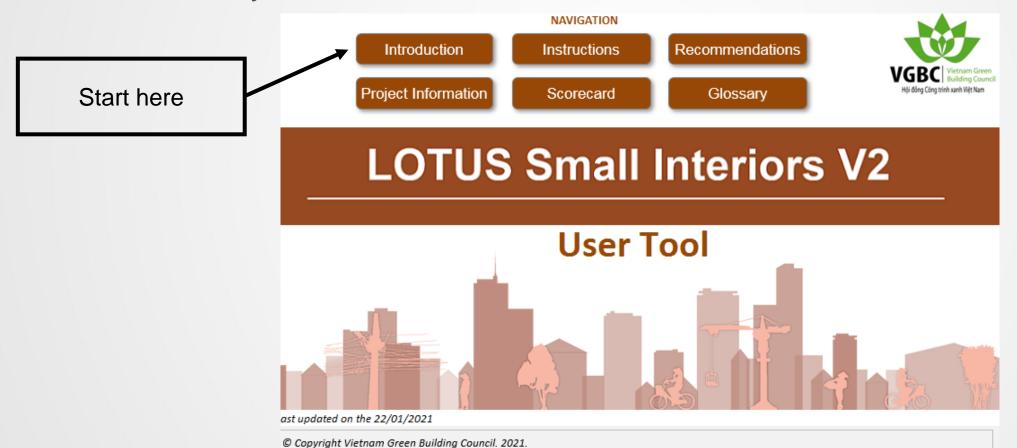
USER TOOL

lacksquare

Ready to use

Complete overview of LOTUS SI

- Perform all the calculations
- Give all the results



Whilst every care has been taken in preparing this document, the Vietnam Green Building Council cannot accept responsibility for any inaccuracies or for consequential loss incurred as a result of such inaccuracies arising through the use of the document. The Vietnam Green Building Council reserves the right to amend, alter, change or update this document in any way and without prior notice.



USER TOOL INTRODUCTION

Read the Introduction sheet first to find all important information on LOTUS Homes.

	Introduction on LOTUS Small Interiors (LOTUS SI) Navigation			Click on Scorecard to		
<u>1. Scope</u> <u>2. Eligibility</u>	5. Certification Levels 6. Certification Process		Instructions	Recommendations	Scorecard	access the main
<u>3. Categories</u> <u>4. Credits</u>	7. Submissions		Project Information	Graphical Results	Glossary	sheet
LOTUS Small Interiors is part of the LOTUS Rating Systems 'family' which includes LOTUS New Construction, LOTUS Buildings in Operation, LOTUS Homes, LOTUS Small Buildings and LOTUS Interiors.				All the buttons in the Navigation menu help to navigate the Tool and find more information		
2. LOTUS SI Eligi						
	ets 6 Eligibility Rules that all projects have to follow are listed in the 'LOTUS SI Eligibility' spreadsheet.	n order to pursue LOTUS SI Certification		Eligibility		
3. LOTUS SI Cate						
LOTUS SI is composed of	of 7 categories, each containing a varying number of c	redits.				



USER TOOL SCORECARD

LOTUS Small Interiors V2 Scorecard

Energy		Possible points	Points	
E-1	Space cooling		6	0
E-2	Artificial Lighting		5	0
E-3	Energy Efficient Appliances		4	0
E-4	Energy Monitor		1	0
BPC	C Best practice credits		2	0
		Total	18	0

Water		Possible points	Points	
W-1	Water Efficient Fixtur	res	5	0
W-2	Drinking Water		1	0
		Total	6	0

Materials & Resources		Possible points	Points
MR-1	Sustainable Materials	4	0
MR-2	Sustainable Furniture Products	4	0
MR-3	Fit-out Waste	2	0
MR-4	Operation Waste Management	2	0
	Total	12	0

Exce	eptional Perfor	mance	Possible points	Points
EP-1	Enhanced Perform	ance		0
EP-2	Innovative Solution	s	4	0
		Total	4	0

cea	I G			
Hea	Ith & Comfort		Possible points	Points
H-1	Fresh Air Supply		1	0
H-2	Low-VOC Emissions		4	0
H-3	Interior Plants		1	0
H-4	Green cleaning		1	0
H-5	Daylighting		2	0
H-6	External Views		2	0
H-7	Thermal comfort		1	0
BPC	Best practice credits		5	0
		Total	17	0

Site & Environment			Possible points	Points	
SE-1	Green base building)	3	0	
SE-2	Tenancy lease		1	0	
SE-3	Green Transportation	on	2	0	
SE-4	Refrigerants		1	0	
BPC	Best practice credit	s	1	0	
		Total	8	0	

Management			Possible points	Points
Man-1	Construction Stage	e	2	0
Man-2	Commissioning		1	0
Man-3	Maintenance		2	0
Man-4	Green Awareness	s and Behaviour	2	0
BPC	Best practice cred	lits	3	0
		Total	10	0



Click on the images to access to the different Category sheets



Tables showing the points achieved by the project in the different credits

USER TOOL CATEGORY SHEET

Energy

To monitor and reduce the energy consumption through the use of natural ventilation and the installation of energy efficient equipment (HVAC, lighting, appliances, etc.).

Credit	Available points	Points
E-1 Space Cooling	6	0
E-2 Artificial Lighting	5	0
E-3 Energy Efficient Appliances	4	0
E-4 Energy Monitor	1	0
Energy Best Practice Credits	2	0
Total	18	0



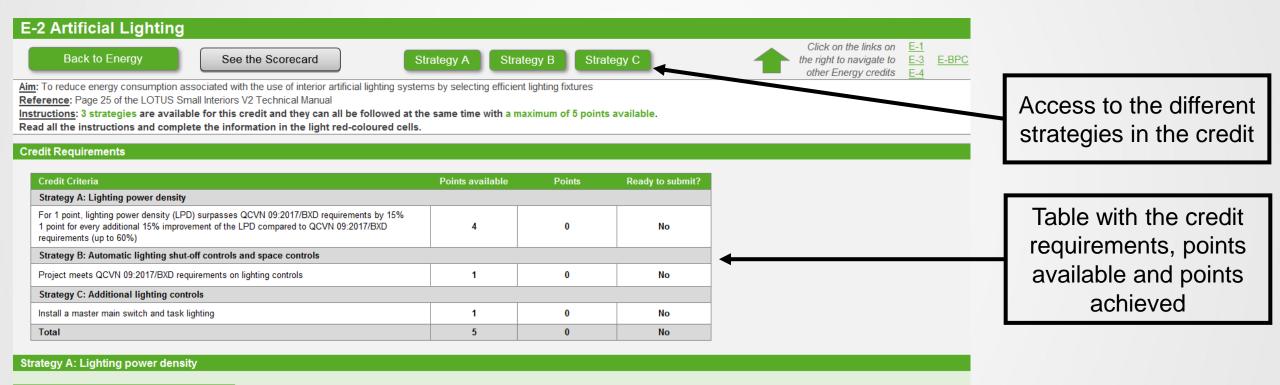
Click on the links to access to the different credit sheets

See the Scorecard

Go back to the LOTUS SI Scorecard



USER TOOL CREDIT SHEET



Approach & Implementation



USER TOOL CREDIT SHEET

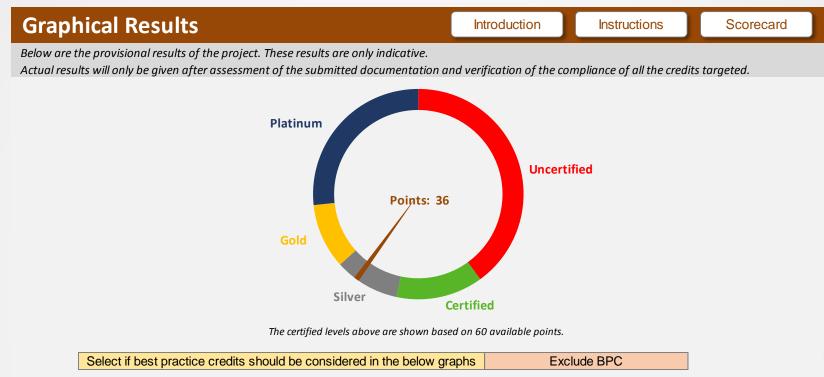
	Pay	attention to the difference between
E-1 Passive Design		ategy and Option !
Back to Energy See the Scorecard Stra	egy A Strategy B Strategy C Click on the links on E-2 E-5 BPC the right to navigate to E-3 E-6 other Energy credits E-4 E-7	
<u>Aim</u> : To incorporate design techniques that take advantage of the natural climate and site <u>Reference</u> : Page 24 of the LOTUS Homes Pilot - Technical Manual <u>Instructions</u> : 3 strategies are available for this credit and they can all be followed a Read all the instructions and complete the information on passive design in the light	a minimize mechanical cooling in the building, while ensuring comfort for all occupants of the same time with a maximum of 5 points available.	roject can implement any or all strategies and cumulate points for the credit (while being
Credit Requirements	res	tricted by the maximum number of points).
Criteria		a project can select only one of the options
Strategy A: Building Orientation For 1 point, east and west facades area is lower than 40% of the total facade area For 2 points, east and west facades area is lower than 20% of the total facade area	2 0 No With	n its assigned points.
Strategy B: Window-to-wall ratio (WWR) For 1 point, WWR of the east and west facades is lower than 30% For 2 points, WWR of the east and west facades is lower than 15%	E-5 Water Heating	Click on the links on E-1 E-4 BPC
Strategy C: Shading devices 1 point for meeting each of the following requirements: - Install appropriate shading devices on windows of the north and south facades - Install appropriate shading devices on windows of the east and west facades Total Strategy A: Building Orientation	Back to Energy See the Scorecard Aim: To reduce the energy consumption of domestic water heating by using solar or heat pump water heating systems. Reference: Page 37 of the LOTUS Homes Pilot - Technical Manual Instructions: Choose to follow either Option A: Solar water heating OR Option B: Heat pump water heating. Read all the instructions and complete the information in the light red-coloured cells. Credit Requirements	the right to navigate to E-2 E-6 other Energy credits E-3 E-7 Option A Option B
	Select the option pursued: Select	
	Criteria Points available Option A: Solar water heating A solar thermal system produces the domestic hot water 2	Points Ready to submit?
	Option B: Heat pump water heating 2 A heat pump water heater produces all the domestic hot water consumption 2	
	Option A: Solar water heating	
	Approach & Implementation	
	Select a properly sized solar water heating system	
	Reply to the questions below:	
	Has a solar hot water system been installed to cover the hot water demand of the house? Select What is the capacity of the solar hot water system? (liters)	VGBC Vietnam Green Building Council
		Hội đồng Công trình xanh Việt Nam

USER TOOL CREDIT SHEET

🎽 Complete the table below with information on all the non-ducted air conditioners with capacity < 12 kW serving the project space (if any):

									In Credit E-1 Strategy B -
Air-conditioning unit model	Brand	Туре	Quantity	Rated Electric Power Input (kW)	Cooling capacity (kW)	CSPF of the unit	CSPF required by QCVN 09:2017/BXD	Details	Performance Path, users should fill
		Select							in information on the air-conditionin
		Select							
		Select							units in the light-red colored cells.
		Select							
		Select					x		
		Select						\searrow	
		Select							The COP/CSPF requirements from
		Select							QCVN 09:2017/BXD are
		Select							
		Select							automatically determined by the
		Select Select							tool based on the type and size of
		Select							the air-conditioning units
		Select							
		Select							
Average CSPF	e CSPF of air-con required by QCV	N 09:2017/BXD							The performance achieved is automatically computed by the tool
	SPF improvement	(%)	_						
bmissions									The Submissions section shows
Submit all the docur	mentation listed be	low:			Submi	tted?	Name of the document(s)	the list of documents required to demonstrate compliance with the
Schedule of all the	e HVAC equipment	installed indicating CSP	F/COP values		Sele	ect			credit. Users should select
Schematic drawing	gs of the HVAC sys	stem indicating location	of all the equipm	ent	Sele	ect			"Submitted" when a document is
Manufacturer's dat	a of the HVAC equ	ipment installed indication	ng CSPF/COP va	alues	Sele	ect			ready to be submitted.
esults					The re	esults are a	utomatically c	omputed and	
Points Ready to submit?	0 ? No				show	the numbe	r of points ach nittals are read	eved and	VGBC Vietnam Green Building Council Hội đồng Công trình xanh Việt Nam

USER TOOL: GRAPHICAL RESULTS







USER TOOL CHECKLIST BEFORE SUBMISSIONS

n			
1	Certification Agreement has been signed	Please confirm	
2	Assessment fee has been paid	Please confirm	
_			
nissi	ion content		
	it the second stand lines. Tool to the Assessment Opposition with		
ubm	it the completed User Tool to the Assessment Organization with:	Disease senfers	
1	The Project Information sheet fully completeed	Please confirm	
2	Completed credit sheets for all targeted credits	Please confirm	
	Consistent information throughout the credits (for example, same information input on lighting fixtures in credit E-2 Artificial Lighting and Credit H-BPC-2 Lighting Comfort)	Please confirm	
3	credit L-2 Artificial Lighting and Credit H-D-C-2 Lighting Comort)		
-			
-	submit the following:		
-		c.) Please confirm	

1	Inside of documents submitted, highlight the relevant information for LOTUS credits where suitable	Please confirm	
2	All documents are legible (drawings, plans, photographs when showing written information, etc.)	Please confirm	Click here to see some

Complete the checklist to make sure that the project follows all requirements and is ready to send submissions to VGBC for Certification.

