

Template for Evidence(s) UI GreenMetric Questionnaire

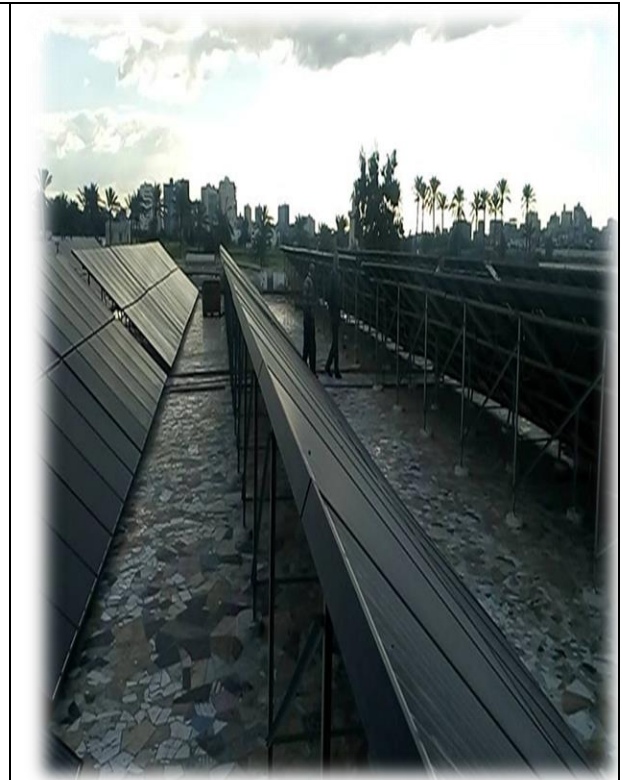
University : Alexandria University
Country : Egypt..
Web Address : [https://alexu.edu.eg/...](https://alexu.edu.eg/)

[2] Energy and Climate Change (EC)

[2.10] Greenhouse gas emission reduction program



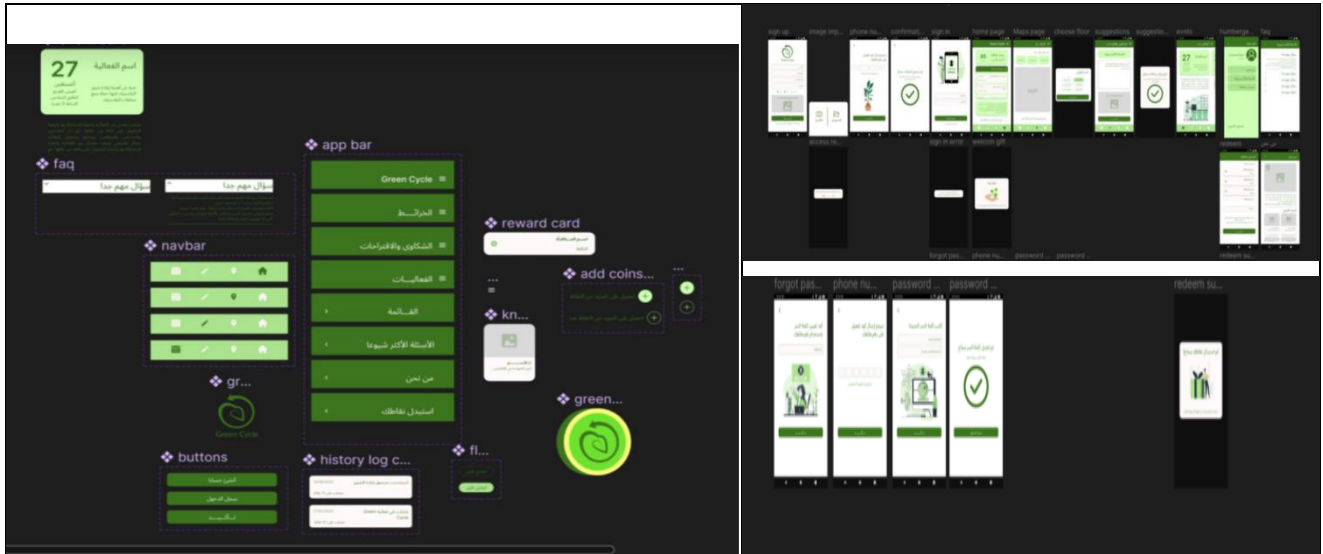
1. LED lighting and lamps (Abis Campus, Alexandria University)



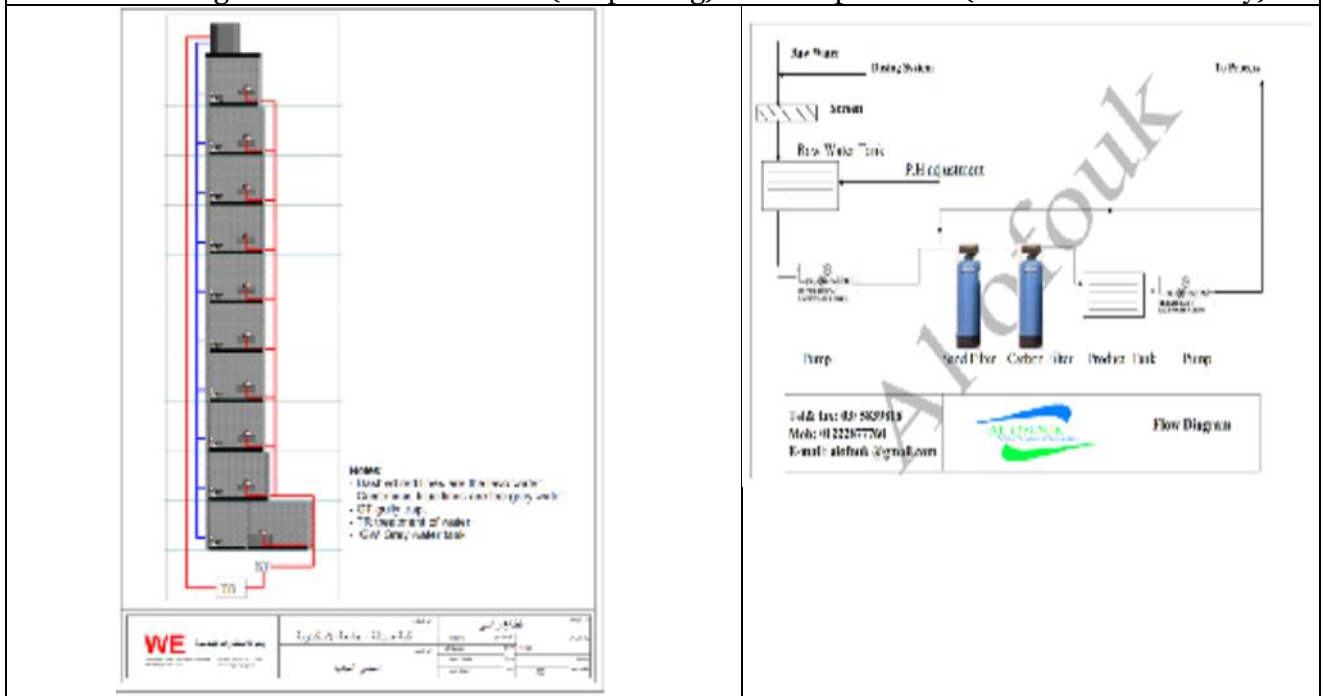
2. Renewable energy (Solar Energy Center at the Faculty of Agriculture, Alexandria University)



3. Ride Share using the University Shuttle (Alexandria University)



4- An application, prepared for smart phones, specific to Green Cycle project enables college members to share cars (car pooling) for transportation (Alexandria University)



5- Grey water recycling system organized by Faculty of Pharmacy (Alexandria University)



6- Waste recycling by Green Cycle project- Faculty of Pharmacy (Alexandria Univrsity)



7. Solar Energy Center at the Faculty of Science (Alexandria University)



8. BIPV Roof Pergola, Faculty of Science in Moharram Bek (Alexandria University)

9. BIPV Garden Pergola, Faculty of Science in Moharram Bek (Alexandria University)



Description:

Table: Greenhouse gas emission sources at Alexandria University Campus

	Emission data	Definition
Scope 1	Stationary combustion	Stationary combustion refers to the burning of fuels to produce electricity, steam, and heat in a fixed location, such as boilers, burners, heaters, kilns, and engines.
	Mobile combustion	Burning of fuels by institution-owned transportation devices
	Process emissions	Direct greenhouse gas (GHG) emissions from physical or chemical processes rather than from fuel combustion
	Fugitive emissions	Hydrofluorocarbon releases during the use of refrigeration and air conditioning equipment and methane leakage from natural gas transport
Scope 2	Purchased electricity	Indirect GHG emissions result from the generation of the electricity purchased and used by the institution
Scope 3	Waste	Indirect GHG emissions resulting from the incineration or landfill of your institution's solid waste
	Purchased water	Indirect GHG emissions resulting from the generation of water supply purchased and used by the institution
	Commuting	Indirect GHG emissions resulting from regular commuting from and to institutions by students and employees (i.e., reducing regular commuting by using shared vehicles, carpooling)
	Air travel	Indirect GHG emissions resulting from air travels paid by institutions (i.e., reducing the number of staff air travel opportunities)

Elements of Green Building Implementation as Reflected in all new construction and renovation policies:

Scope 1, Stationary combustion and Mobile combustion: These GHG sources are reduced by Ride Share using the University Shuttle and Carpool, by the decrease of burning of fuels. In addition, the use of bicycles reduces the GHG source. Reducing the individual carbon footprint of students, faculty members and college employees by developing an application, prepared for smart phones. The Green Cycle project was organized by Faculty of Pharmacy- Alexandria University that enables faculty members to share cars for transportation in a safe manner in order to reduce carbon emissions resulting from car exhausts. Is project is a succesful project which was performed as a prototype at the Faculty of Pharmacy. Alexandria University's plan is to establish the Green Cycle project in all Faculties.

Scope 1, Fugitive emissions: All new buildings in Abis campus are designed with large windows to get maximum benefit from daylight and natural ventilation. In addition, all University buildings have good natural ventilation and daylight. This will reduce the use air conditioning equipment and accordingly decrease GHG.

Scope 2, Purchased electricity: As for energy, all the new buildings in Abis Campus have solar enery generation cells to provide part of the building's needs, which are estimated at about 45%, in addition to using energy-saving lamps (LED). In addition, the public site lighting poles are powered by solar enery.

All the faculties and institutes of the university realize their own energy-saving potential by means of LED lighting and the deployment of sustainable technology. Alexandria University have generalized this initiative in some of the faculties of Alexandria University in gradual stages.



Alexandria University Program to reduce Electricity consumption from Air Conditioners and electric devices such as Computers, printers, lab apparatus.

1. All newly purchased AC are inverter AC to reduce the electricity consumption.
2. The new electric devices such as Computers, printers, lab apparatus are energy efficient devices.
3. All electronic devices must be shut down at night, when not used.
4. Regular Maintenance of all devices.
5. The thermostats of the air conditioner are set at 25°C, and direct sunlight is avoided by using sun protection curtains

Scope 3, Waste: Implementing environmental awareness programs at the beginning of study on policies that can be followed to reduce waste production on campus, and to reduce the consumption of paper, plastic, and metals on college campuses.

Alexandria university program to reduce the use of paper and plastic in campus.

- 1) Development of electronic archiving system; the university faculties and the main campus are moving toward the electronic archiving system to reduce paper consumption.
- 2) University decree to reduce the use of paper in the campus:
 - 2.1: The president decree to use the e-mails for communications inside the campus and between the university main campus and all the other campuses.
 - 2.2: In the situations, the university or any of its faculties need to print the official documents; this has to be on recycled paper (2 faces copy).
 - 2.3: The University formulated a community for administrative reform to minimize the administrative processes and decrease the use of papers except in who are relevant to financial process.
- 3) Digital transformation toward electronic exams to reduce paper consumption.
- 4) Digital transformation toward electronic course to reduce paper consumption and books printing.
- 5) Electronic administration of student courses by about 50% instead of written administration to reduce paper consumption.

Scope 3, purchased water: The University has applied a strategy in the faculties to decrease water consumption through installation of special parts on water taps, showers, toilette, and bathroom bidet which can conserve about 50% of water consumption. Water saving devices are used instead of traditional devices. For example, the use of a hand-washing faucet with automatic control via a sensor, and high-efficiency bathroom devices. Supplying water taps with water conservation units. Adopting a mechanism to maintain water pipes to prevent waste resulting from leaks.

In addition, a policy for the reduction of purchased water was implemented in Abis Campus 1) Water-saving plots are used, which will reduce water consumption by about 30%. The sewage water will be treated and reused in the irrigation of green areas in the project. 2) Rainwater is collected in the main lake and used for irrigation. 3) The use of plants with few water rationed plants to reduce irrigation needs in addition to absorbing quantities of rainwater to reduce the severity of rain spells.

Also, faculty of Pharmacy is seriously seeking to implement a grey water (wastewater) recycling system that depends on reusing wastewater from sewage basins only (without using wastewater from laboratory basins) by re-pumping it into the flushing bins in the toilets after work. Filtration and primary treatment and taking advantage of rainwater for use in irrigation and regulatory operations.

Scope 3, Commuting: These GHG sources are reduced by Ride Share using the University Shuttle and Carpool, by the decrease of burning of fuels. In addition, the use of bicycles reduces the GHG source. An application was developed for smart phones, by the students at the Faculty of Pharmacy- Alexandria University that enables faculty members to share cars for transportation in a safe manner (Green Cycle project).



Scope 3, Air travel: The University usually support the travel of Faculty members and student once every two years for attending conferences. Lately, since the covid 19 pandemic, and the increase in air travel Tickets, the support of travel was stopped.

Additional evidence link: <https://alexu.edu.eg/index.php/about-us-ar>

Link for LED lighting:

https://alexu.edu.eg/index.php/?option=com_content&view=article&id=5935&catid=21&lang=ar-AA

Link for Solar Energy:

https://alexu.edu.eg/index.php/?option=com_content&view=article&id=5936&catid=21&lang=ar-AA

Link for Sustainable Development: <https://alexu.edu.eg/index.php/en/sustainable-development>

Link for Green University:

https://alexu.edu.eg/index.php/?option=com_content&view=article&id=5932&catid=21&lang=ar-AA

Links for Green Cycle project

https://drive.google.com/file/d/1-1rdgtkuRXQ3qkqWNAyhZ7jcJ_7LscfY/view

<https://alexuuni->

my.sharepoint.com/:v/g/personal/radwa_ewaisha_alexu_edu_eg/Ee3t6KrqmrRGol6CRQtc81IBaiqxKAjj8L6E0qthOzs9XA?e=xHRgTa

<https://fb.watch/mzqhBHazV4/?mibextid=j8LeHn>

https://drive.google.com/drive/folders/15Tbf3hUjvFksE_suXkqycqpX8g4sV0Ni?usp=drive_link

https://drive.google.com/drive/folders/1waCoAbnuCs7_wsKvjLCQjtQUOCGclF09?usp=drive_link

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https://drive.google.com/file/d/1sifttbKmPzZWYhCTosYQMIldw0c6IAfoq/view?usp=drive_link

<https://www.figma.com/file/Szikt682DveoqpQD4VYxKz/green-cycle?type=design&node-id=0-1&mode=design>