University of Sadat City

Race to zero Plan

2023-2030

"**We are running the most dangerous experiment in history right now**, which is to see how much carbon dioxide the atmosphere can handle before there is an environmental catastrophe".

***Elon Musk**, CEO of Tesla & SpaceX*

TEAMWORK

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Race to Zero Plan

Goal (1)	Decreasing GHGs Emissions from transportation
 **Projects**	**Converting the university's buses to use natural gas instead of diesel** (Short-term project) **Converting the university's cars to use electricity instead of petrol (gasoline)** (Long-term project)
 **Recommendations**	• **Utilize the university buses instead of commuting by private car.** • **Carpooling (having at least one other passenger when commuting by private car).** • **Consider walking or biking if you live near the university.**

- **Project:** task will be completed within definite time and budget
- **Short-term projects:** 6 monthes-2years
- **Long-term projects:** > 2 years – 8 years
- **Regulations:** rules must be done (If the violation is repeated, it may result in fines)
- **Recommendations:** suggestions for personal participation in reduction of GHGs emissions

Goal (2)	**Decreasing GHGs Emissions from air conditioners and refrigerators**
 **Projects**	**Replacing old air conditioners and coolers with new ones** (Short-term project)
 **Regulations**	• **Commitment of colleges to regular maintenance of air conditioners, refrigerators** • **Determining the times of using air conditioners and fans** • **Using air conditioners at appropriate cooling temperatures (24-26 °C)** • **Close all windows and doors when HVAC systems are in use.** • **Turning off air conditioners before leaving offices and halls**
 **Recommendations**	• **Wear clothing suitable for weather conditions.**

Goal (3)	**Decreasing GHGs Emissions from electricity consumption**
 **Projects**	**Using LED bulbs instead of regular bulbs** (Short-term project) **Using of solar energy as a source for energy** (Long-term project)
 **Regulations**	• **Shut down lighting sources, computers, and projectors after usage.**
 **Recommendations**	• **Unplug unused electronics (chargers, … etc.).** [i]

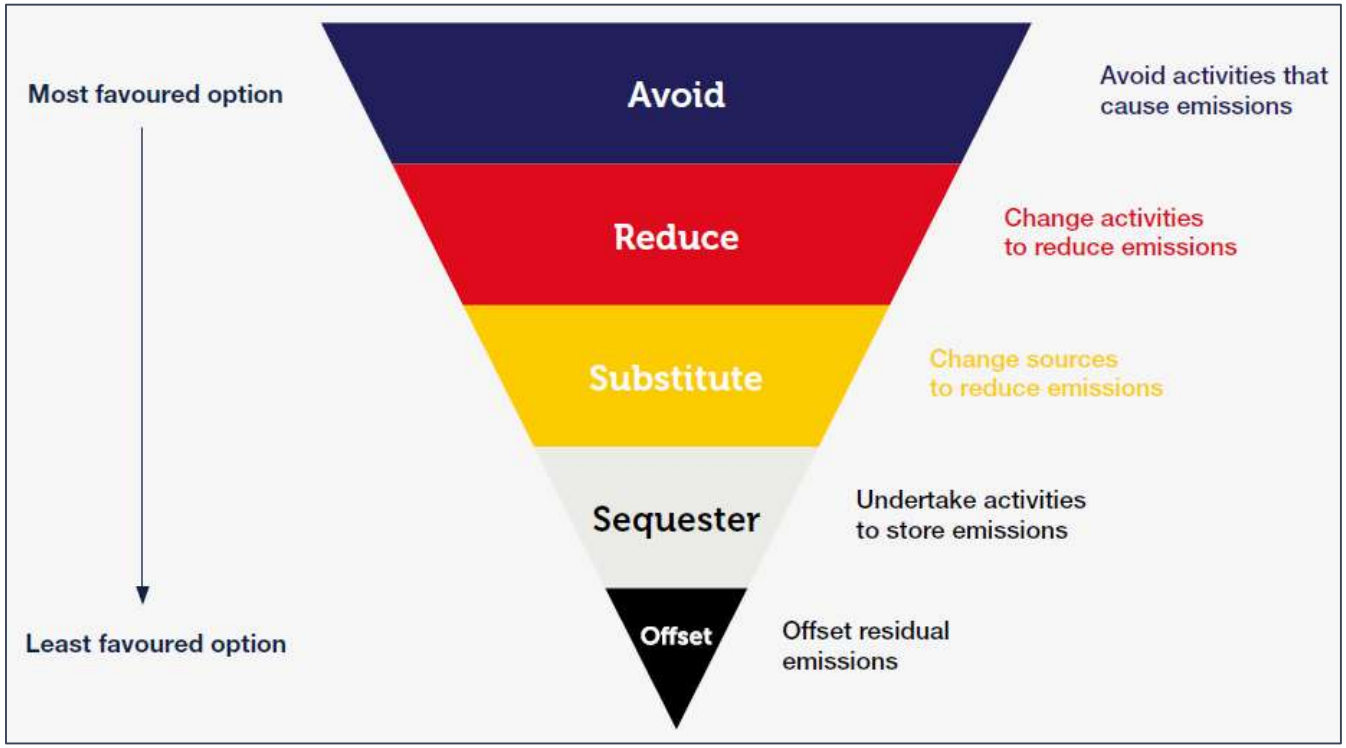
[i] Plugged-in, unused electronics still use electricity in the form of “vampire energy.”

Goal (4)	**Decreasing GHGs Emissions related to paper consumption**
 **Projects**	**Digital transformation to reduce paper consumption** (Short-term project)
 **Regulations**	• **Set printer settings to double-sided, 12pt. font, and black and white.**

Goal (6)	**Decreasing GHGs Emissions related to solid wastes**
 **Projects**	**Digital transformation to reduce paper consumption** (Short-term project)
 **Regulations**	• **Set printer settings to double-sided, 12pt. font, and black and white.**
 **Recommendations**	• **Using of reusable water bottles and bags to** • **Buying/ preparing suitable quantities of food in the colleges and the university housing to decrease organic wastes.**

Goal (6)	**Sequestration of irreducible emissions GHGs**
Projects	**Planting 100,000 trees in around colleges** (Long-term project)

(*) Sequesteration i s considered as the 4th alternative in in the RMIT Carbon Management Hierarchy as shown below.



The RMIT Carbon Management Hierarchy [ii]

[ii] RMIT University, (2022). Carbon Management Plan.

Goal (7)	**Increasing competition between colleges**
 **Regulations**	• **Adding a clause on reducing carbon footprint within the distinguished college award and the Environmental Excellence Award**

Goal (7)	**Increasing students participation**
 **Projects**	• **Annual awareness campaigns and seminars for students**
 **Regulations**	• **An annual award for the best idea to reduce GHGs emissions**

All used icons are from: https://www.flaticon.com

Appendix (1) Summary of USC carbon Footprint (2023)

Scope	**GHGs Sources**		**GHGs Emissions** (tCO_2e)
Scope I	University Fleet	Private Cars	499.334
		Buses	87.971
		Minibuses	296.510
		Microbuses	51.040
		Trucks	44.816
		Ambulances	6.040
	Generators	Diesel Consumption	23.093
	Cookers & Ovens	LPG cookers	21.358
		Natural Gas cookers and ovens	506.016
	Air Conditioners	R22 Leakage	232.0032
		R410a Leakage	58.464
	Farm Lands	Tractors	12.342
		Fertilizers Usage	12.79
		Livestock	73.66
Total of Scope I			**1912.197**
Scope II	Electricity Consumption		1262.564
Total of Scope II			**1262.564**
Scope I & Scope II (2023)			**3174.761tCO_2e**