Energy Management

The University of Haifa is committed to optimizing energy use to enhance economic sustainability and reduce its carbon footprint.

The University of Haifa is committed to taking the necessary steps to conserve energy, protect the environment, and use clean renewable energy resources, aiming to minimize the university's carbon footprint, thus contributing towards the UN's Sustainable Development Goals, SDGs (namely, Goal #7: Affordable Clean Energy and Goal #13: Climate action). In particular, the University of Haifa makes the pledge to carbon neutrality by 2039.

In addition, the university complies with relevant Israeli legislation and policies, including the "Efficient Use of Energy – National Plan" from the Ministry of Energy and Infrastructure (link: https://www.gov.il/BlobFolder/guide/conservation_department/he/energy_2030_updated_2.pdf).

As part of this commitment, the University submits a comprehensive "Energy Consumption Analysis" as mandated by the Ministry.

In alignment with these objectives, the University of Haifa is actively pursuing the following initiatives:

Goals	Activities Perused, Action Items
Establish a reliable Data Base	• Measure energy consumption: electricity, diesel fuel • Measure Environmental impact: carbon footprint
Analyze Data Base	• Identify main energy consumers • Identify main contributors to the carbon footprint • Determine whether operation complies with best practice • Potential for renewable energy (solar) • Emissions
Mitigation	• Energy consumption reduction plan, Carbon Footprint reduction plan o Reduce demand reduction via improvements in construction & engineering practices o Reduction of Carbon Footprint o Improve efficiency ♣ HVAC efficiency ♣ Lighting • Renewable energy

Establish a reliable Data Base

Goals	Activities Perused, Action Items
Measure electricity consumption	• Measure overall consumption per month, per building Measure consumption of major electrical consumers
Measure diesel consumption	• Measure diesel consumption per month
Carbon Footprint	• Establish data, including commuting data • Vehicle database

Analyze Data Base

Goals	Activities Perused, Action Items
Identify main energy consumers	• HVAC was identified as main energy consumer (over 60%)
Identify main contributors to the carbon footprint	• Transport / commuting was identified as the main contribution (over 40%) • Electricity second largest at 25%
Determine whether operation complies with best practice	• Potential for reduction of energy consumption & carbon footprint was identified • Appropriate planning was initialized
Potential for renewable energy (solar)	• Preliminary study was performed to identify & quantify potential (Reference – PV Potential survey report)
Emissions	• Diesel fueled boilers are the main source of emissions

Mitigation:
Energy consumption reduction plan, Carbon Footprint reduction plan

Goals	Activities Perused, Action Items
Reduce demand reduction via improvements in construction & engineering practices (see architecture & construction)	• IR filter on windows as a retrofit on existing buildings under evaluation (Reference – This document) • As a minimum, new buildings to confirm with the applicable Israeli regulation. Please see link with government study containing data for design. Additional information and design criteria are also published by the government and are updated periodically. (link) • Green roofs – implement where applicable & possible.
Reduction of Carbon Footprint	• Minimal vehicle fleet (both leased & owned) as the university advocates the use of public transport (Reference – Annex 17 – Vehicle Database) • Promotion of EV's & Hybrids, in line with governmental tax benefits. (Reference - https://www.gov.il/he/pages/tax-outline) • Procurement department prioritized lease of efficient vehicles (EV's, hybrids, fuel efficient ICE vehicles), pending availability (chip crisis and other factors) (Reference – This document) • Promotion of carpooling (Reference – This document)

Improve efficiency	• HVAC efficiency o Improve operation procedures: temperature setpoint, operating schedule, equipment utilization (Reference - This document. Please note that detailed design documents are not attached. Project is approved and to be implemented during 2024-2025) o Replace low efficiency equipment – major investment was approved to upgrade the main HVAC system (equipment & infrastructure).

	Currently under design. (Reference – This document. Please note that detailed design documents are not attached. Project is approved and to be implemented during 2024-2025) o Reduce use of diesel boilers – Partial replacement of boilers and reduction of diesel fuel Currently under design. (Reference – This document. Please note that detailed design documents are not attached. Project is approved and to be implemented during 2024-2025) • Lighting o LED to replace less efficient lighting – ongoing. In the past several years, an annual budget of 300,000 NIS was allocated to install LED lights. The campaign is ongoing. (Reference – This document)
Renewable energy	• Electricity purchase tender: Commercial incentive for suppliers providing electricity from a renewable source. (Reference – This document) • Photo Voltaic (PV) (Reference – PV Potential survey report)