دائـــــرة الـصـــحـــة
DEPARTMENT OF HEALTH

Emerald Sustainability for Primary Care & One Day Surgery Centers Jawda Guidance

Version 1

Table of Contents

1. Executive Summary

The DOH Health Facility Guidelines for the Emerald Sustainability Index are focused on sustainability and green building initiatives specifically for healthcare providers primary care centers, and one day surgery standalone centers.

Abu Dhabi construction industry is already covered by the requirement of Estidama. However, these requirements are not healthcare-specific. Part S of the DOH Guidelines should be seen as complementary to Estidama and a natural extension of the other components of the Guidelines across primary care centers, and one day surgery standalone centers.

It is hoped that through the Emerald Sustainability Index, healthcare providers will introduce initiatives and features that will put primary care centers and one day surgery standalone centers at the forefront of innovation in sustainability.

The DOH approvals will indicate the level of Sustainability achieved. Dimensions must reflect performance across the 3 pillars prioritized under DoH's sustainability goals to achieve net zero.

The guidance sets out the full definition and method of calculation for Emerald Sustainability Index - Measure Cards applicable to primary care centers and one day surgery standalone centers.

For enquiries about this guidance, please contact jawda@doh.gov.ae

This document is subject for review and therefore it is advisable to utilize online versions available on the DOH website at all times.

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2. Introduction

2.1. The Department of Health– Abu Dhabi (DOH) is the regulative body of the Healthcare Sector in the Emirate of Abu Dhabi and ensures excellence in Healthcare for the community by monitoring the health status of the population. DOH is mandated:

- To achieve the highest standards in health curative, preventative and medical services and health insurance in the Emirate.
- To lay down the strategies, policies and plans, including future projects and extensions for the health sector in the Emirate, and to follow-up their implementation
- To apply the laws, rules, regulations and policies which are issued as they are related to its purposes and responsibilities, in addition to what is issued by the respective international and regional organizations in line with the development of the health sector.
- To follow up and monitor the operation of the health sectors, to achieve and exemplary Standard in the provision of health, curative, preventive and medicinal services and health insurance

2.2. DOH defines the strategy for the health system, monitors and analyses the health status of the population and performance of the system. In addition, DOH shapes the regulatory framework for the health system, inspects against regulations, enforces standards, and encourages adoption of world-class best practices and performance targets by all healthcare service providers primary care centers and one day surgery standalone centers in the Emirate of Abu Dhabi.

2.3. DOH also drives programs to increase awareness and adoption of healthy living standards among the residents of the Emirate of Abu Dhabi in addition to regulating scope of services, premiums and reimbursement rates of the health system in the Emirate of Abu Dhabi.

2.4. The Health System of the Emirate of Abu Dhabi is comprehensive, encompassing the full spectrum of health services and is accessible to all residents of Abu Dhabi. The system is driven towards excellence through continuous outcome improvement culture and monitoring achievement of specified indicators. Providers of health services are independent. Predominately private and follow highest international quality standards. The system is financed through mandatory health insurance.

In doing so DOH will:

- Drive structure, process and outcome improvements across health sector
- Put people first and champion their rights
- Focus on quality and act swiftly to eliminate poor quality of care
- Work with Stakeholders and apply fair processes.
- Gather information and utilize knowledge and expertise to improve care.

- Link the care to payment in a way that results in a continuous improvement and maximize the value of the care provided in Abu Dhabi.

3. Planning for data collection and submission

In planning for data collection and submission primary care centers and one day surgery standalone centers must adhere to the reporting, definition, and calculation requirements set out in this guidance. Healthcare providers must also consider the following:

- Nominate responsible data collection and quality leads(s).
- Ensure data collection leads are adequately skilled and resourced.
- Understand and identify what data is required, how it will be collected (sources) and when it will be collected.
- Create a data collection plan.
- Ensure adequate data collection systems and tools are in place.
- Maintain accurate and reliable data collection methodology.
- Data collation, cleansing and analysis for reliability and accuracy.
- Back up and protect data integrity.
- Have in place a data checklist before submission.
- Submit data on time and ensure validity.
- Review and feedback data findings to the respective teams in order to promote performance improvement.
- Failing to submit valid data will be in breach of the licensing condition and could result in fines being applied, penalties associated with performance or revoke of license.
- When needed, documentation and tracks will be provided instantly to DOH, or their representative, to assure DOH that all dues processes are being followed in collecting, analyzing, validating and submitting your performance

4. About this Guidance

Emerald Sustainability Index

This guidance sets out to contribute to a healthier environment by implementing Sustainability Standards without compromising healthcare principles and concerns. The guidance sets out the definitions, parameters and frequency by which JAWDA Quality indicators will be measured and submitted to DOH and will ensure that primary care centers and one day surgery standalone centers provide safe, effective and high-quality services.

Q. Who is this guidance for?

All DOH-licensed primary care centers and one day surgery standalone centers in the Emirate of Abu Dhabi, excluding primary care and one day surgery services provided within hospital settings.

Q. How do I follow this guidance?

Each primary care center and one day surgery standalone center will nominate one member of staff to coordinate, collect, quality control, monitor and report relevant data as per communicated dates. The nominated healthcare facility lead must in the first instance e-mail their contact details (if different from previous submission) to JAWDA@doh.gov.ae and submit the required annual quality performance indicators through the online portal.

Q. What are the Regulation related to this guidance?

Legislation establishing the Health Sector
This Emerald Sustainability guidance is in accordance with the requirements set out in the DOH Health Facility Guidelines 2022 Part S – Sustainability.

Type: Core Indicator **Indicator Number: ESC001**

KPI Description (title):	**Annual Energy Consumption Per Square Metre**
Dimension	Operations
Definition:	**Energy Use Intensity (EUI)** is a metric used to assess energy efficiency of a building. It represents the building's metered annual energy consumption and enables comparison of energy performance across facilities of similar type and function. EUI is calculated by dividing the total annual energy consumed including electricity for **cooling** and **non-cooling** purposes by the building's total condition floor area. For the local standardization of energy consumption, we refer specifically, to electricity. Gas consumption where boiler/kitchen are in use are excluded. Conditioned floor area means the sum of areas of all floors in conditioned space in the structure, including basements, cellars, and intermediate floored levels measured from the exterior faces of exterior walls or from the center line of interior walls, excluding covered walkways, open roofed-over areas, porches, exterior terraces or steps, chimneys, roof overhangs and similar features. **Note:** All energy values must be converted into megawatt-hours (MWh) for calculation purposes, and all unit conversion factors must be clearly referenced for audit and verification. Report values up to a minimum of two decimal places without rounding to whole numbers.
Calculation:	***Numerator***: Total Energy consumption (megawatt hours [MWh]) ***Numerator Inclusion:*** • Cooling electricity consumption • non-cooling electricity consumption • all electricity consumption from solar energy ***Numerator Exclusion:*** estimated readings from gasoline, diesel, and natural gas ***Denominator***: The total *Conditioned floor area* of facilities, square meters (m2), includes managed by the facilities providing support for healthcare delivery
Reporting Frequency:	Annual
Unit of Measure:	MWh/m2
International comparison if available	• Canadian Coalition for Green Health Care. (2019). Green Hospital Scorecard Report. Green Hospital Scorecard PDF • Subject Matter Expert (SME) recommendation, citing Greenly. (n.d.). What is energy use intensity (EUI) Greenly EUI Article • Subject Matter Expert (SME) recommendation, citing ENERGY STAR Score for Hospitals in the United States (source not

	included), 2021 • Subject Matter Expert (SME) recommendation, citing Health Facilities Management (HFMMagazine). (n.d.). Measuring hospital energy performance. (source not included)
Desired direction:	Lower the better
	Notes for all providers
Data sources and guidance:	• DOH Health Facility Guidelines 2022 Part S – Sustainability • Energy consumption data must be collected from monthly utility records provided by AADC, ADDC, TAQA, Tabreed (cooling system), or any relevant sources or grid supplier, ensuring that readings reflect actual consumption dates rather than bill issue dates.

Type: Core Indicator **Indicator Number: ESC002**

KPI Description (title):	**Annual Carbon Emissions Per Patients Covered**
Dimension	Operations
Definition:	A measure of an organization's greenhouse gas (GHG) emissions across all scopes, in accordance with the Greenhouse Gas Protocol standards (ghg-protocol-revised.pdf) • **Scope 1 Emissions:** These include direct GHG emissions from owned or controlled sources. Facility direct emissions that contribute to greenhouse gas emission, For example emissions from stationary combustion, mobile combustion, fugitive releases from refrigerants and fire suppression systems, volatile anaesthetic agents, medical gases, and on-site waste treatment activities • **Scope 2 Emissions:** These represent indirect emissions from the consumption of purchased electricity, heating, cooling, or steam. Emission factors must be obtained from the relevant grid supplier. Inclusion of of Scope 2: **Location-based:** Uses average emission factors for the grid where the energy was consumed. **AND** **Market-based (if applicable)**: Uses emission factors based on contractual instruments (e.g., clean energy certificates). **Note:** Report values up to a minimum of two decimal places without rounding to whole numbers

Calculation:	***Numerator***: Total annual carbon emissions per scope of the Greenhouse Gas Protocol measured in tCO2eq (metric tons) *Report Separately each scope*: a) Scope 1 (Direct) GHG emissions b) Scope 2 (Energy indirect) emissions. (Use updated year **TAQA UAE Emission Factor** as common Emission factor for calculation currently published in TAQA website: Announcements – TAQA) ***Denominator***: Total annual number of patient encounters delivered by the facility. (primary care consultations and one day surgery cases).
Reporting Frequency:	Annual
Unit of Measure:	tCO2eq per encounter
International comparison if available	• World Resources Institute & World Business Council for Sustainable Development. (2004). The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) • Subject Matter Expert (SME) recommendation in alignment with Geneva Sustainability Center (source not included)
Desired direction:	Lower the better
Notes for all providers	
Data sources and guidance:	• DOH Health Facility Guidelines 2022 Part S – Sustainability • Abu Dhabi Department of Energy – Clean Energy Certificates Regulatory Policy • TAQA – Official Announcements Webpage • Emirates Water and Electricity Company (EWEC) – Clean Energy Certificates Webpage

Type: Core Indicator **Indicator Number: ESC003**

KPI Description (title):	**Percent of Virtual Patient Visits**
Dimension	Operations
Definition:	Organization's efforts to reduce its carbon intensity by implementing telehealth initiatives
Calculation:	***Numerator***: Annual number of virtual visits, including phone consultations. Telehealth procedure codes: 99441, 99442, 99443, 99446, 99447, 99448, 99449, 01-01, 01-02, 01-03, 01-04 ***Denominator***: Annual number of outpatient encounters (including face-to-face OP visit, diagnostics, virtual visits, daycase)
Reporting Frequency:	Annual
Unit of Measure:	Percentage
International comparison if available	• Subject Matter Expert (SME) recommendation in alignment with Geneva Sustainability Center (source not included)
Desired direction:	Higher is Better
Notes for all providers	
Data sources and guidance:	• DOH Health Facility Guidelines 2022 Part S – Sustainability

Type: Core Indicator **Indicator Number: ESC004**

KPI Description (title):	**Annual Water Consumption Intensity Per Square Metre**
Dimension	Operations
Definition:	**Water Use Intensity (WUI)** is expressed as the facility's annual water use relative to the total *conditioned floor area*. It is a measure that is used to determine the facility's water performance. *Conditioned floor area* means the sum of areas of all floors in conditioned space in the structure, including basements, cellars, and intermediate floored levels measured from the exterior faces of exterior walls or from the center line of interior walls, *excluding* covered walkways, open roofed-over areas, porches, exterior terraces or steps, chimneys, roof overhangs and similar features. Facility water data is collected in cubic meters (m3) and divided by the reported conditioned floor area (m2) to calculate a final WUI (m3/m2). **Note:** Report values up to a minimum of two decimal places without rounding to whole numbers
Calculation:	***Numerator***: Total annual water consumption, measured in cubic meters [m^3] ***Denominator***: The total *Conditioned floor area* of facilities, measured in square meters (m2), by the facilities providing support for healthcare delivery ***Denominator Exclusion***: recycled water supplied by the municipality for landscaping purposes
Reporting Frequency:	Annual
Unit of Measure:	m^3/m^2
International comparison if available	• NHS England. (2021). Health Technical Memorandum 07-04: Water management and water efficiency. • Canadian Coalition for Green Health Care. (2019). Green Hospital Scorecard Report. Green Hospital Scorecard PDF • Subject Matter Expert (SME) recommendation, citing: Law Insider. (n.d.). Conditioned floor area (source not included) • Subject Matter Expert (SME) recommendation, citing: Victoria State Government, Department of Health. (n.d.). Reducing water use at healthcare facilities (source not included).
Desired direction:	Lower is better
	Notes for all providers
Data sources and guidance:	• DOH Health Facility Guidelines 2022 Part S – Sustainability • Energy consumption data must be collected from monthly utility records provided by AADC, ADDC, TAQA, Tabreed (cooling system), or any relevant sources or grid supplier, ensuring that readings reflect actual consumption dates rather than bill issue dates.

Type: Core Indicator **Indicator Number: ESC005**

KPI Description (title):	**Percent of Employees Trained in Climate Change or Sustainability**
Dimension	Infrastructure
Definition:	Extent to which medical and non-medical staff are trained on the relationship between climate/environment and human health conditions/illnesses/diseases Geneva Sustainability Masterclass: An in-person, one-day learning programme which will allow to hone facility leaders' competencies and provide key information and tools to assess, plan and address the required organizational changes.
Calculation:	***Numerator***: Annual number of unique staff trained on climate change or sustainability (Amount of full-time equivalent staff who have undergone training sessions, aimed at learning about the relation between climate change and human health, the contribution of the healthcare sector, and the role of healthcare leaders and professionals as climate leaders. ***Measured per employee trained, regardless of the number of times they took the training***) ***Inclusion***: can be Attendance Certificate of Healthcare Providers in Geneva Sustainability Masterclasses OR other trainings. ***Denominator***: Total Employees providing services at the facility site. ***Denominator inclusion***: all staff (full time and contracted / part time) for • medical staff • non-medical staff
Reporting Frequency:	Annual
Unit of Measure:	Number of employees
International comparison if available	• Subject Matter Expert (SME) recommendation in alignment with Geneva Sustainability Center (source not included) • Subject Matter Expert (SME) recommendation, citing: Green Business Bureau. (n.d.). Corporate sustainability training: An executive guide (source not included).
Desired direction:	Higher is better
Notes for all providers	
Data sources and guidance:	• DOH Health Facility Guidelines 2022 Part S – Sustainability • All relevant training attendance records, training materials, and applied calculation assumptions must be documented

Type: Core Indicator **Indicator Number: ESC006**

KPI Description (title):	**Biomedical Waste Generation**
Dimension	Disposal
Definition:	It represents the percentage of biomedical waste in comparison to the total waste generated by a healthcare organization. **Group A Medical Waste** Anatomical or pathological waste, waste contaminated with human blood or other body fluids, excreta, vomit, human tissue, wastes from contagious diseases, dirty bandages, bed sheets, animal remains and all other materials on which animal lay or cloth or used by animal whether contaminated or not and mortuary wastes. **Group B Medical Waste** Sharps, usually syringes and needles, surgical tools, different medicine and medical equipment vessels, broken glass and all other sharp equipments, tools and materials. **Group C Medical Waste** Blood, tissue and microbial cultures and microbiology laboratory waste, carcasses of inoculated lab animals, stools from cholera patient or body fluid of highly infectious diseases, and mortuary waste not specified under Group A. **Group D Medical Waste** Pharmaceutical and chemical waste to which medical specifications apply. **Group E Medical Waste** Deposable linings used for patient beds, caps of bottles for receiving and storing blood, urine, urine diapers, bags or vessels used for receiving stomach waste and similar wastes. **General Waste** Non-Hazardous Waste; similar to Domestic waste **Radioactive waste**: such as products contaminated by Radionuclides including radioactive diagnostic material or radiotherapeutic materials **Note**: Actual waste quantities must be reported in **metric tons** rather than using the number of skips. All calculations and conversion factors must be fully referenced, and supporting evidence must be provided for every conversion or estimation applied in the calculation. Report values up to a minimum of two decimal places without rounding to whole numbers.
Calculation:	***Numerator***: Weight of generated biomedical waste in metric tons (Group A-E) ***Numerator Exclusions****:* • General waste • Radioactive waste ***Denominator***: Total weight of all generated waste in metric tons (e.g. Medical and Non-Hazardous).
Reporting Frequency:	Annual

Unit of Measure:	Percentage
International comparison if available	• Canadian Coalition for Green Health Care. (2019). Green Hospital Scorecard Report. Green Hospital Scorecard PDF • World Health Organization. (2024). Health Care Waste PDF
Desired direction:	Lower is better
Notes for all providers	
Data sources and guidance:	• DOH Health Facility Guidelines 2022 Part S – Sustainability • Tadweer Group Services Guide (2025) – English PDF • DOH Medical Waste Management Standard for Healthcare Facilities 2025 • Facility waste management reports and waste disposal invoices issued by the Finance Department to the contracted waste management company for the reporting year • Contract agreement between the facility and the waste management service provider

Type: Core Indicator **Indicator Number: ESC007**

KPI Description (title):	**Recyclable Waste Generation**
Dimension	Disposal
Definition:	It represents the percentage of recyclable waste in comparison to the total waste generated by a healthcare organization. **Note**: Actual waste quantities must be reported in **metric tons** rather than using the number of skips. All calculations and conversion factors must be fully referenced, and supporting evidence must be provided for every conversion or estimation applied in the calculation. Report values up to a minimum of two decimal places without rounding to whole numbers
Calculation:	***Numerator***: Weight of generated recyclable waste in metric tons For example: • Plastic • Glass • Metal/cans • Paper, Cartoons, etc. • Construction and demolition recyclable material • Others ***Denominator***: Total weight of all generated waste in metric tons (e.g. Medical and Non-Hazardous).
Reporting Frequency:	Annual
Unit of Measure:	Percentage
International comparison if available	• Canadian Coalition for Green Health Care. (2019). Green Hospital Scorecard Report. Green Hospital Scorecard PDF
Desired direction:	Higher is better
Notes for all providers	
Data sources and guidance:	• DOH Health Facility Guidelines 2022 Part S – Sustainability • Tadweer Group Services Guide (2025) – English PDF • Facility waste management reports and waste disposal invoices issued by the Finance Department to the contracted waste management company for the reporting year. • Contract agreement between the facility and the waste management service provider.