

SUSTAINABILITY SERVICES

Advisory, Design
Analytics, Assurance +
Performance



dar



Contents

Introducing Dar	4
Advisory	12
Design Analytics	16
Assurance	18
Performance	20

Introducing Dar



“

Resilience and sustainability are within reach, and together we will be successful at achieving them. ”

Talal Shair, Chairman and Chief Executive Officer

With our portfolio of green-certified projects, we have a proven track record of providing services in sustainable architecture and high-performance engineering design as well as sustainable master planning, interiors and infrastructure, thus spanning the whole built environment.

Our whole lifecycle sustainability advisory services seek to achieve effective sustainability outcomes while identifying and implementing optimal strategies to achieve net zero energy, reduce water usage, lower waste generation and reduce the embodied and operational carbon all while adhering to regulations, codes and standards.

Moreover, our impacts extend to include assessing sites for development, seeking urban connectivity, promoting the conservation of natural resources and the use/reuse of sustainable materials, supporting sustainable construction, safeguarding natural systems, reducing energy/carbon footprint, and designing liveable communities and sustainable infrastructure.

A global leader in sustainable design and environmental consultancy.

Dar is a global leader in sustainable design and environmental consultancy: combining a vision for sustainability and practical experience to deliver a solution-based approach for the built environment.

We bring years of insights and experience to make the future of industry liveable and sustainable by providing thought leadership on sustainability issues on an international scale, supporting global targets for environmental sustainability, and pioneering high performance design in the region.

KSA Pavilion at Dubai Expo 2020, United Arab Emirates





Princess Nora Bint Abdulrahman University, KSA

We partner with public and private stakeholders to create transformational change in our region's approach to sustainability and high-performance design.

Dar proactively works in partnership with a wide range of international and local stakeholders including clients, policymakers, and NGOs to promote green policies and sustainability standards, deliver ambitious carbon reduction pathways, and create healthier and more resilient communities.

In its day-to-day business, Dar promotes decarbonisation both externally - through our projects, the services we offer to our clients, our relationships with suppliers and contractors, and our corporate social responsibility initiatives - and internally, through ambitious targets for our assets and strict standards for sustainability and occupational health and safety within our offices.

Our contributions range from providing thought leadership on global sustainability policy panels and climate change committees to incorporating sustainability in natural and regional master plans to providing consultancy services for neighbourhoods and single buildings.

Advisory

Our experts work with public and private stakeholders to accelerate the transformation that the world needs to build better while creating new frameworks and master plans that promote biodiversity, renewable energy, circular design, and sustainability.

Design Analytics

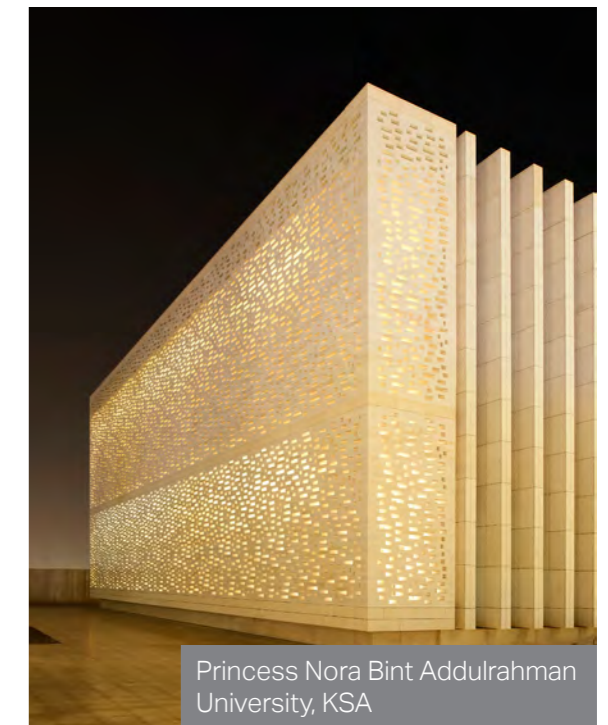
Our best-in-class engineers and technical experts use state-of-the-art technologies, combined with the latest research, to create impact and optimise the design of building and infrastructure assets and to prepare for the lower carbon world ahead.

Assurance

Dar's over 500 certified professionals have mastered a wide variety of sustainability certification systems and empower clients to meet and exceed the standards of international rating systems.

Performance

Our capabilities cover assessing all project components with the highest impacts and identifying and optimising sustainability drivers behind the project's energy use, carbon, waste, and water footprint.



Princess Nora Bint Abdulrahman University, KSA



Magdi Yaacoub Foundation Heart Centre, Egypt



Gewan Island, Qatar

We are fully committed to identifying resilient solutions that balance environmental, economic, social, governance, and cultural issues, all driven towards carbon neutrality and net zero, if not net positive, energy, water, and waste.

Dar is stepping up with bold sustainable commitments, mapping out a plan for delivering on promising technological schemes and innovative solutions that help the world reach its climate goals.

Dar's commitment to sustainability derives from a wider commitment to empowering our clients and host communities to meet broader global goals, specifically the United Nations' 17 Sustainable Development Goals.

Through our business operations, corporate social responsibility programs, and internal operations, Dar directly addresses 13 of the global goals. Our sustainability team directly addresses SDGs such as Good Health and Well Being (SDG 3), Clean Water and Sanitation (SDG 6), Affordable and Clean Energy (SDG 7), Industry, Innovation, and Infrastructure (SDG 9), Sustainable Cities and Communities (SDG 11), Responsible Consumption and Production (SDG 12), Climate Action (SDG 13), Life below Water (SDG 14), and Life on Land (SDG 15).

Our approach recognises the complexity of the issues facing our clients, by bringing together planning and policy experts, economists, environmental specialists, project managers, architects and multidisciplinary engineers to find synergies and solutions that address multiple dimensions simultaneously.



University of Dubai, UAE

Our commitment to sustainability is embedded in all of our services across all our sectors and markets.

Architecture

Whether designing airports and hospitals or residential villas and hotels, our architects and engineers adhere to a high baseline standard of sustainable design, that is implemented, by company policy, across all Dar projects.

Transportation

Our transportation planners and engineers promote sustainable mobility options in everything from national transport master plans to single building designs – incorporating principles of green mobility, intelligent transportation systems, electric vehicles, pedestrian-oriented and shared mobility solutions, all the way to futuristic net-zero transportation options such as the Hyperloop.

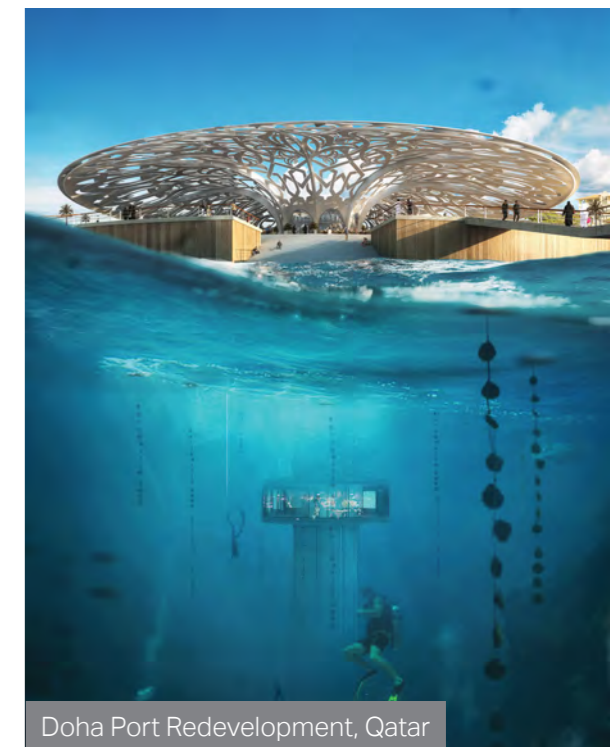


Infrastructure

From designing sustainable infrastructure master plans for new developments to optimising water resource management, Dar's infrastructure specialists play a significant role in creating more liveable and sustainable communities.

Energy

Dar's energy specialists support communities in transitioning to renewable energy and meeting decarbonisation goals, by using technologies such as hybrid smart grids and exploring new options such as green hydrogen.



Advisory

Our experts work with public and private stakeholders to accelerate the transformation that the world needs to build better while creating new frameworks and master plans that promote biodiversity, renewable energy, circular design, and sustainability.

From roadmaps to net zero emissions for public ministries to carbon neutral master plans for airport complexes, our planning and sustainability specialists partner with governments, authorities, private and public organisations and other stakeholders to set strategies for achieving ambitious sustainability goals.

Services

- ▶ Corporate Sustainability Strategy and Standards Development
- ▶ Sustainability Policy and Planning
- ▶ Building Code Development
- ▶ Climate Adaptation Plans
- ▶ Resilience Strategy
- ▶ Decarbonisation Roadmaps
- ▶ District Energy Planning
- ▶ Campus Sustainability
- ▶ Master Plan Sustainability
- ▶ Sustainable Design Guidelines
- ▶ Clean Energy Procurement
- ▶ Real Estate ESG Strategy
- ▶ Workshop Facilitation
- ▶ Visioning and Goal Setting
- ▶ Stakeholder Engagement
- ▶ Sustainability Submittals for Development Permits and Planning Approvals
- ▶ Training and Capacity Building



Projects

Al Maktoum International Airport, United Arab Emirates – Airport City Sustainability Master Plan and Carbon Neutral Plan

MOICT Zero Energy Nursery, Jordan – Roadmap to Net Zero Emissions

NEOM Technical Governance Policy and Procedures, Saudi Arabia – Sustainable Development Framework

Abu Dhabi National Oil Company (ADNOC) Staff Accommodations, United Arab Emirates – Sustainable Strategy and Framework

King Salman Energy Park (SPARK), Saudi Arabia – Sustainability Roadmap; Buildings and Infrastructure Sustainable Strategy

Green Riyadh Nursery, Saudi Arabia – Global Sustainability Standards

Cairo Central Business District, Egypt – Sustainable Development Framework

Bloom District Development, United Arab Emirates – Sustainable and Innovative Development Strategy

Al Khafji Land Border Crossing, Saudi Arabia – Sustainable Development Framework and Campus Sustainability

New Bugesera International Airport (NBIA), Rwanda – Main Terminal, Ancillary Buildings, and Infrastructure



Our expertise covers a wide variety of interventions, from shaping sustainable development frameworks and global sustainability standards for new projects and upcoming developments to advising on technical governance policy and procedures from a sustainability perspective.



Central Business District, Egypt

Design Analytics

Our best-in-class engineers and technical experts use state-of-the-art technologies, combined with the latest research, to create impact and optimise the design of building and infrastructure assets and to prepare for the lower carbon world ahead.



American University of Beirut Medical Centre, Lebanon



Gewan Island, Qatar

Projects

American University of Beirut Medical Centre, Lebanon – Advanced Envelope Performance, Resource Management, and Health and Well-being Strategies

KSA Pavilion at Dubai Expo 2020, United Arab Emirates – Life Cycle Analysis for Reduced Embodied Carbon

NEOM Development Projects, Saudi Arabia – Energy and Water Efficiency, Regenerative Design Approach, Low Carbon Materials, Enhanced Biodiversity, and Health and Well-Being Strategies

Khalifa Stadium, Qatar – Optimised Outdoor Microclimate and Human Experience Strategy

Al-Faisal for Alternative Energy Systems, Jordan – On-site Renewable Energy Strategy

Doha Port, Qatar – Optimised Outdoor Microclimate, Energy Efficiency, and Human Experience Strategy

Fula Rapids Hydropower, South Sudan – Renewable Energy Systems Analytics and Optimisation

Gewan Island, Qatar – Optimised Outdoor Microclimate, Energy Efficiency, Human Experience Strategy

NEOM Bay Airport, Saudi Arabia – Triple Net Zero Analysis and Modelling

Magdi Yaacoub Foundation Heart Centre, Egypt – Advanced Human Experience Strategy, Energy and Water Efficiency Analytics

Ain al-Soukhna Special Economic Zone, Egypt – Sustainable Initiatives and Renewable Energy System Optimisation

Kaduna Hydroelectric Dams, Nigeria – Renewable Energy Systems Strategy

Our experts provide end-to-end services to ensure the sustainability of building and infrastructure assets across their lifecycle and beyond. Our full life cycle analysis programs allow for informed, sustainable choices covering everything from material procurement to eventual disassembly and demolition. Meanwhile, energy and water efficiency strategies, including renewable energy initiatives as well as treatment and reuse schemes, reduce emissions and conserve precious resources.



KSA Pavilion at Dubai Expo 2020, UAE

Our teams also offer specialised services such as advanced envelope performance, optimised outdoor microclimates, and human experience strategies to optimise the built environment for its target communities, creating benefits for people and planet alike.

Our capabilities in design analytics are consistently applied across various sectors, from stadiums, ports and airports, and new developments to dams, hospitals, and special economic zones.

Services

- ▶ Net Zero Design
- ▶ Energy Use Characterisation
- ▶ Parametric Energy Modelling
- ▶ Renewable Energy System Optimisation
- ▶ Climate Responsive Design
- ▶ Network Load Analysis
- ▶ Solar Control
- ▶ Dynamic Facades
- ▶ Natural Ventilation
- ▶ Glazing Optimisation
- ▶ Light and Visual Comfort
- ▶ Airflow and Distribution
- ▶ Thermal Comfort
- ▶ Wind Comfort
- ▶ External Comfort
- ▶ Solar Access and Overshadowing
- ▶ External Glare Analysis
- ▶ Whole Life Carbon
- ▶ Full Spectrum LCA
- ▶ Computational Fluid Dynamics
- ▶ Acoustics Analysis

Assurance



King Abdul Aziz International Airport, KSA

Dar's over 500 certified professionals have mastered a wide variety of sustainability certification systems and empower clients to meet and exceed the standards of international rating systems.

Dar works with clients and stakeholders to set and meet sustainability goals for their projects and developments by creating tailored strategies and monitoring construction and delivery in order to meet established standards and targets.

Our team is familiar with a wide range of recognised national and international sustainability and energy standards, and we consistently pursue any new emerging standards, to ensure that our clients can be kept up to date on the industry's latest practices.

Projects

- Al Ghadeer Hyperloop, United Arabs Emirates
- King Abdul Aziz International Airport, Saudi Arabia
- Princess Nourah Bint Abdulrahman University Campus, Saudi Arabia
- New Bugesera International Airport Campus, Rwanda
- Hamad International Airport, Qatar
- Ministry of National Guard Health Affairs Five Specialised Hospitals, Saudi Arabia
- KSA Pavilion at Dubai Expo 2020, United Arab Emirates
- Riyadh Transport Control Centre, Saudi Arabia
- Lusail Katara Hotels (Twin Towers) and Floating Island at Marina District, Doha
- Madinah Convention Centre, Saudi Arabia
- University of Dubai, United Arab Emirates
- ARAMCO Innovation Centre, Saudi Arabia
- Kuwait International Petroleum Research Centre (KIPRC) and Other Related Facilities, Kuwait
- Dubai Chamber of Commerce and Industry Building Extension, United Arab Emirates
- Dar New Premises, Cairo
- King Saud Bin Abdulaziz University, Saudi Arabia
- Concourse D at Dubai International Airport, United Arab Emirates
- Nestle Oryx Project, United Arab Emirates
- Centralised Customs Area at the New Port Project (NPP), Qatar
- Katara Hills, Qatar



Lusail Katara Hotels, Qatar

Services

- ▶ Sustainability Management
 - ▷ Criteria and Credit Interpretation
 - ▷ Training and Capacity Building
 - ▷ Support to Project Teams
 - ▷ Submittal Review
 - ▷ Gap Analysis
- ▶ Sustainability Certification
 - ▷ BREEAM Infrastructure (Formerly CEEQUAL)
 - ▷ LEED Platinum
 - ▷ Envision
 - ▷ GSAS 5 Stars
 - ▷ Estidama
 - ▷ Al Sa'fat
 - ▷ EHS
 - ▷ EcoDistricts
- ▶ Wellness Certification
 - ▷ WELL
 - ▷ Fitwel
- ▶ Energy Certification
 - ▷ LEED Zero
 - ▷ Energy Performance Certificates
- ▶ Custom Framework Development
 - ▷ Corporate KPIs
 - ▷ Portfolio KPIs
 - ▷ Project KPIs

Performance

Our capabilities cover assessing all project components with the highest impacts and identifying and optimising sustainability drivers behind the project’s energy use, carbon, waste, and water footprint.

Our extensive experience in guiding and supervising commissioning, testing, installation, operation, monitoring, maintenance, and retrofitting for a wide range of buildings and facilities allows us to ensure that our clients’ assets perform efficiently, smoothly, and to expectations across their entire lifecycle.

From early design review stages, our input is designed to enhance system resilience, maximise efficiency, improve indoor and outdoor environmental quality, reduce operating costs, and optimise the human experience for all users.



Hikma Headquarters, Jordan



Lusail Residential Tower for The Commercial Bank PSQC, Qatar

Projects

- Concourse D at Dubai International Airport, United Arab Emirates
- Hikma Headquarters, Jordan
- New Administrative Capital, Egypt
- Madinah Convention Centre, Saudi Arabia
- Hamad General Hospital Safety Improvement and Risk Mitigation Plan, Qatar
- National Bank of Kuwait (Egypt) New Headquarters, Egypt
- Hamad International Airport Expansion, Qatar
- Lusail Residential Tower for The Commercial Bank PSQC, Qatar

Services

- ▶ Building Systems Commissioning
- ▶ Building Envelope Commissioning
- ▶ LEED Commissioning
- ▶ Contractor's Commissioning Management and Recommissioning
- ▶ Retrocommissioning
- ▶ Energy Auditing
- ▶ BAS/BMS System Optimisation
- ▶ Benchmarking
- ▶ Building Envelop Testing
- ▶ Mission-critical Facility and Data Centre Commissioning
- ▶ Indoor Environmental Quality Monitoring
- ▶ Post-occupancy Surveys
- ▶ Building Performance Analytics
- ▶ Data Management for Corporate Sustainability Reporting (CSER/ESG)



Concourse D at Dubai International Airport, UAE



