

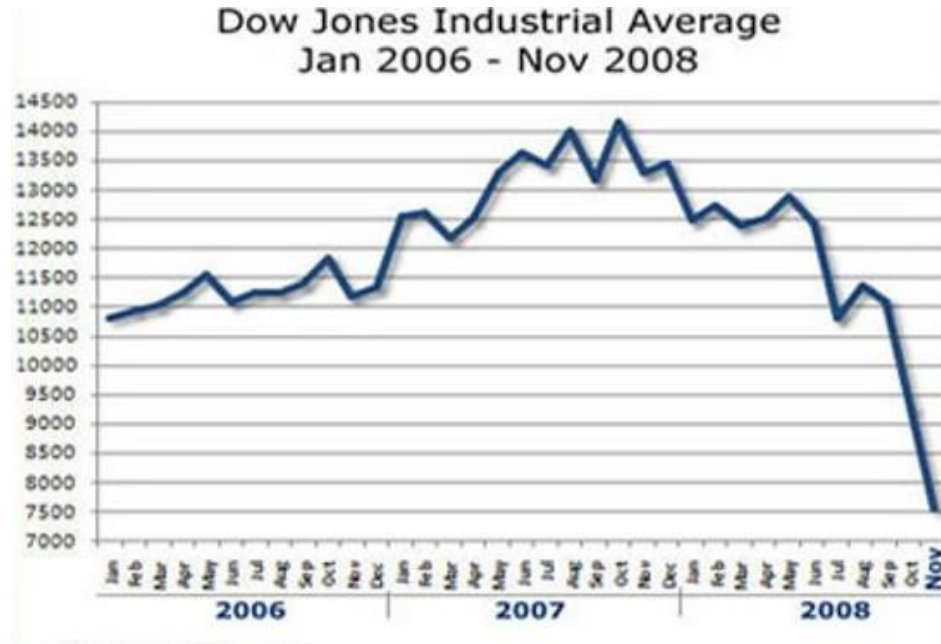
Towards Sustainability: A New Curriculum for Boards

From The Sustainable City to a more sustainable world: Insights and Lessons

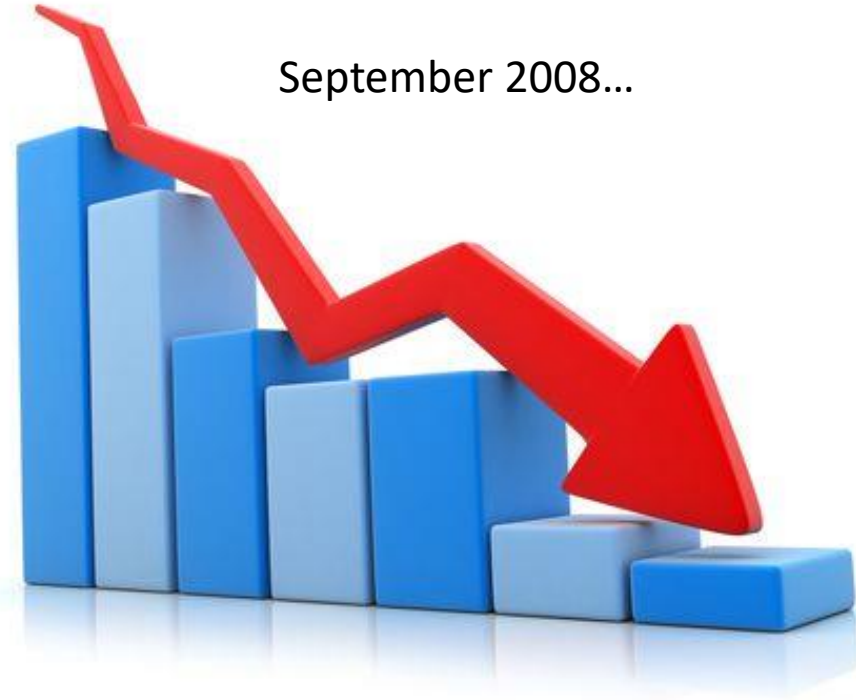
INSEAD, 8 April 2019



The beginning...



September 2008...

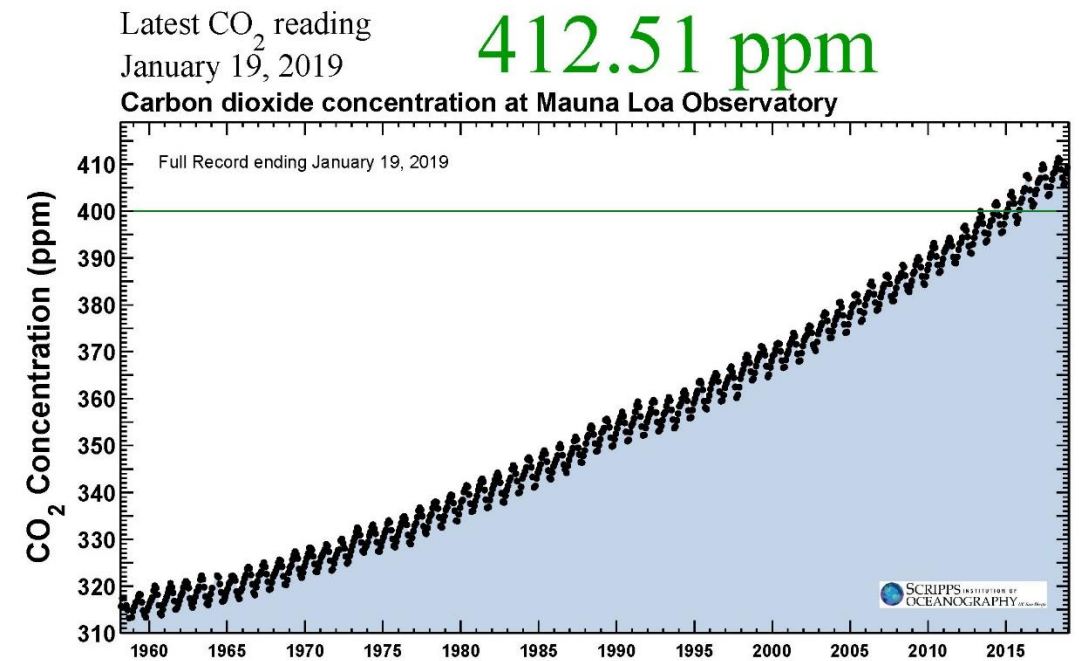


Following the global financial crisis, the managing partners of Diamond Developers decided to explore new development models focusing on sustainability.



The company quickly realized their contribution to greenhouse gases and understood the need for climate action:

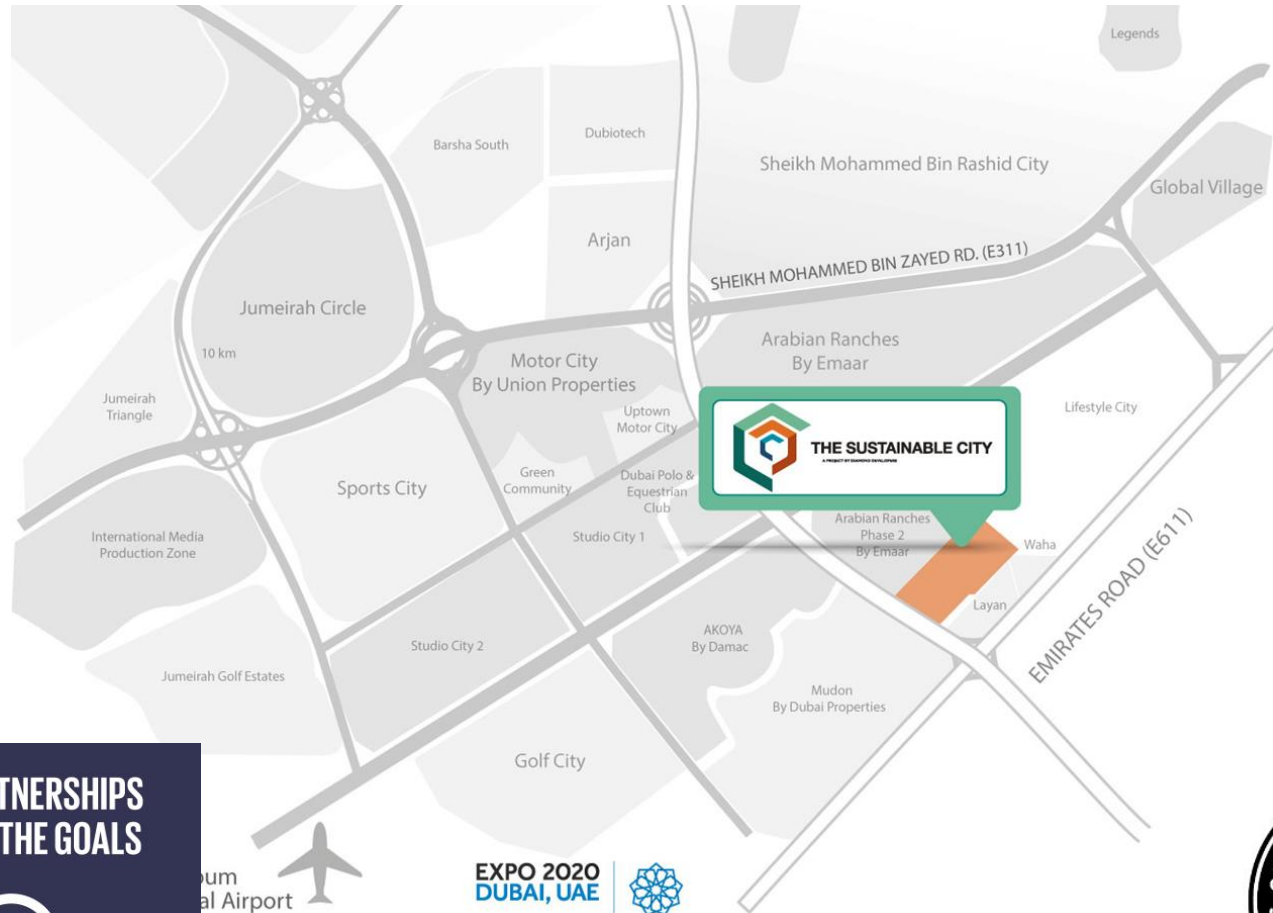
- Readings at Mauna Loa Observatory show that atmospheric CO₂ readings have increased from about 310 ppm in the 1960 to almost 400 ppm in 2010
- Current levels are the highest in 800,000 years, and rising
- **Construction activities contribute 12% to global emissions**



Achievements: 2014 - Present

- 1) Built the first sustainable city in the region, and established a proof of concept which can be replicated globally
- 2) Reached full occupancy (within 2 years of completion) in a highly competitive market, and demonstrated profitability
- 3) Becoming a regional knowledge platform for sustainability in the built environment, with many potential projects in the pipeline.

The Sustainable City is located in Dubailand and was implemented through extensive consultations and stakeholder engagement: from inception to community management



هيئة الطرق والمواصلات
ROADS & TRANSPORT AUTHORITY



هيئة كهرباء ومياه دبي
Dubai Electricity & Water Authority



UC DAVIS
UNIVERSITY OF CALIFORNIA

17 PARTNERSHIPS
FOR THE GOALS



The result is a freehold mixed-use development spanning 460,000 m² and with a total Built Up Area of approximately 250,000 m²



Existing sustainability rating schemes don't perform well with respect to the requirements of "local sensitivity" and "post construction rating".

So we developed our own "DNA":



F E W P M W

FOOD



ENERGY



WATER



PRODUCTS



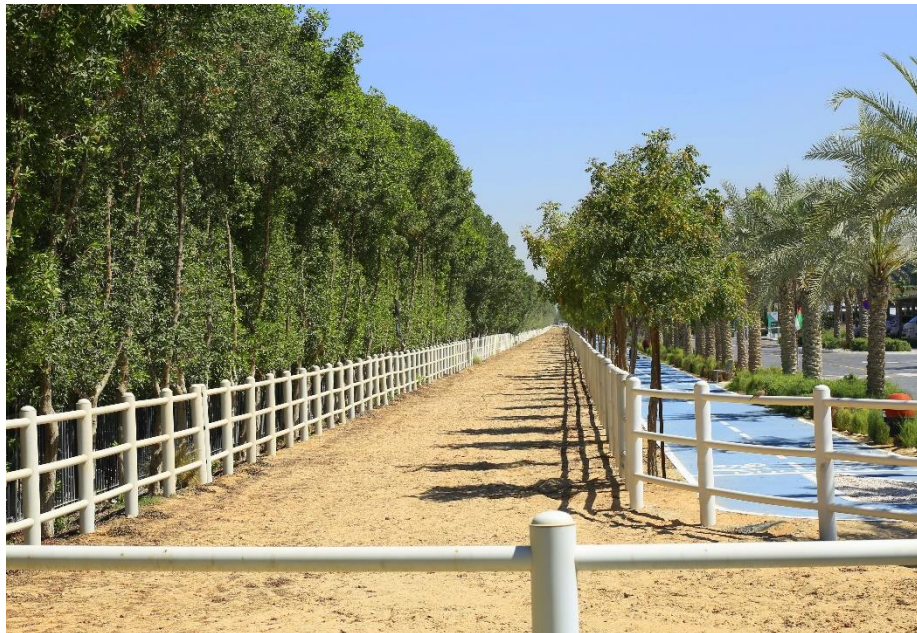
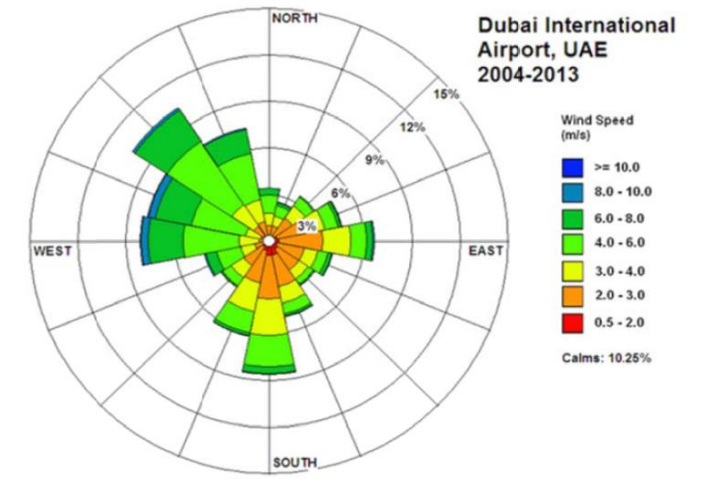
MOBILITY



WASTE



AIR MICRO CLIMATE EMISSIONS





Net ZERO Energy Goal

96%

Villa Occupancy

79%

Of Non-Residential Loads Offset
by Solar PV capacity

100 kWh/m²/Year

Average Energy Use Intensity
in the Villas

3%

EV Uptake
at Household Level

58% of residents

Chose TSC for its
Sustainability Ethos

177 liters

Water Consumption
Per Person Per Day

5.1 CO₂e

Average Emissions
Per Person Per Year

500,000

Potted Herbs
in 2018

87%

Waste Recycling

Other Tools for Monitoring and Reporting:

CPA 10289-0004 : D004 Solar PV at Sustainable City

https://cdm.unfccc.int/ProgrammeOfActivities/cpa_db/WQCYJXUT53Z0V9G1F8NPRBDLO7AH4I/view

Amount of Reductions	6,344 metric tonnes CO2 equivalent per annum
Crediting Period	25 Jul 2018 - 24 Jul 2025 (Renewable)
Inclusion date	20 Jul 2018

Greenhouse Gas Emissions Inventory 2017, 2018



The Sustainable City Greenhouse Gas Inventory 2017

Advancing Low-Carbon Urban Development in the UAE

The Partnership between Emirates Wildlife Society-WWF and The Sustainable City

Emirates Wildlife Society in association with WWF (EWS-WWF) and The Sustainable City (TSC) entered into a strategic partnership to address climate change, promote renewable energy, reduce Greenhouse Gas (GHG) emissions and understand how The Sustainable City performs on key performance indicators.

The Sustainable City demonstrates how a low-carbon business model can be transformational for real estate development in the UAE, while positively contributing to economic growth. EWS-WWF is assisting The Sustainable City in monitoring and reporting its GHG emissions. The partnership is also examining best practices for mitigating emissions from residential and non-residential activities.

Emirates Wildlife Society-WWF

Emirates Wildlife Society-WWF is a non-profit organization established to drive positive change in the United Arab Emirates to conserve the nation's natural heritage. Founded by H.H. Sheikh Hamdan Bin Zayed Al Nahyan, we represent WWF in the region.

Our vision is a sustainable UAE in which our society, economy and environment thrive side by side, enabling people to live in harmony with nature globally. We partner with individuals and institutions to achieve science-based solutions to combat climate change and safeguard the seas, the land and their associated biodiversity. Our work includes research and policy activities, community and corporate engagement, youth education and raising public awareness.

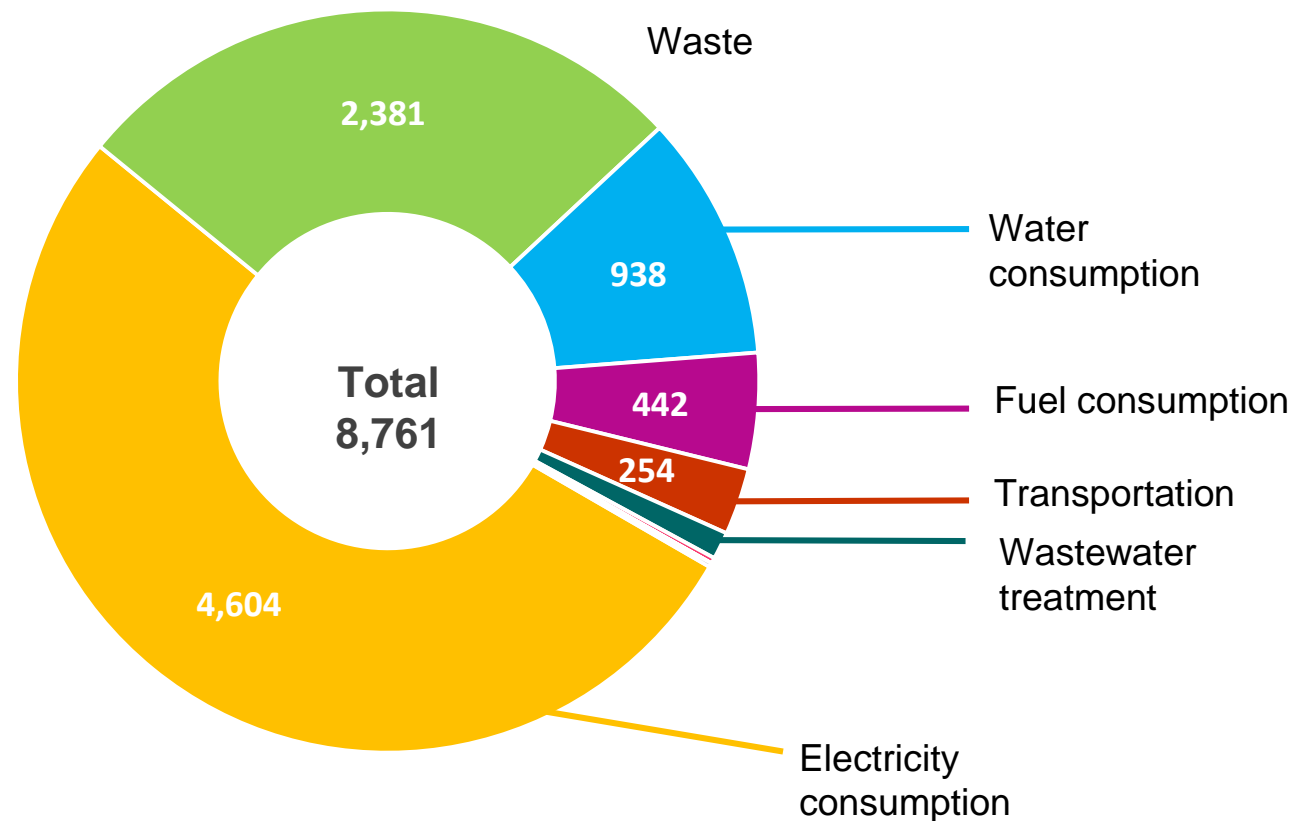
For more information, please visit: uae.panda.org

The Sustainable City

The Sustainable City by Diamond Developers is a residential and mixed-use development located in Dubailand, Dubai. Covering 46 hectares (5 million ft²), the development applies sustainability principles to achieve social, economic and environmental outcomes.

Completed in 2016, Phase 1 of the development has become an international case study for sustainable living, work, and wellness, and aims to become the first operational Net Zero Energy development in the region. It was named by Gulf Real Estate as the "Happiest Community in the Gulf" in 2017 and 2018. Phase 2, slated for completion in 2019, will comprise three facilities: Hotel Indigo, Fairgreen International School, and an Innovation Center to advance and share knowledge on urban sustainability.

For more information, please visit: www.thesustainablecity.ae



The Sustainable City is becoming a reference for sustainability standards in the UAE and beyond:

- Advisory services to Ajman Municipality's (new) Green Building Code
- Participation in several benchmarking exercises:
 - Korean Land and Housing Corporation (Korea) <http://world.lh.or.kr/>
 - Ministry of Infrastructure Development in the UAE <https://www.moid.gov.ae/en-us/Pages/Default.aspx>
 - Islamic Affairs & Charitable Activities Department <https://www.iacad.gov.ae/en/Pages/default.aspx>
 - Emirates Green Building Council's "Defining **Nearly Zero Energy Buildings** in the UAE – 2017" <https://emiratesgbc.org/nzeb-study/>
 - WWF Report "Enabling the UAE's Energy Transition: Top 10 Priority Areas for Renewable Energy Policymakers" <http://www.emiratesnaturewwf.ae/en/publications>

**More than 4,000
visitors in 2018 from
government,
academia,
corporates, and
associations**

Seminar

DUBAI SOLAR SHOW

PART OF
WETEX

Organised By:



هيئة كهرباء ومياه دبي
Dubai Electricity & Water Authority

Sponsored By:



Knowledge Partners



United Nations
Framework Convention on
Climate Change



Clean
Energy
Business
Council
مجلس
الطاقة
النظيفة
الطاقة
النظيفة



THE SUSTAINABLE
CITY



WWF



Challenges

- 1) Design, build, and operate a low carbon community when existing sustainability rating schemes don't perform well with respect to "local sensitivity" and "post-construction"
- 2) Engage relevant stakeholders, from government agencies to end-users, and overcome regulatory barriers
- 3) Incorporate social sustainability into the master plan, and educate end-users to effect behavior change

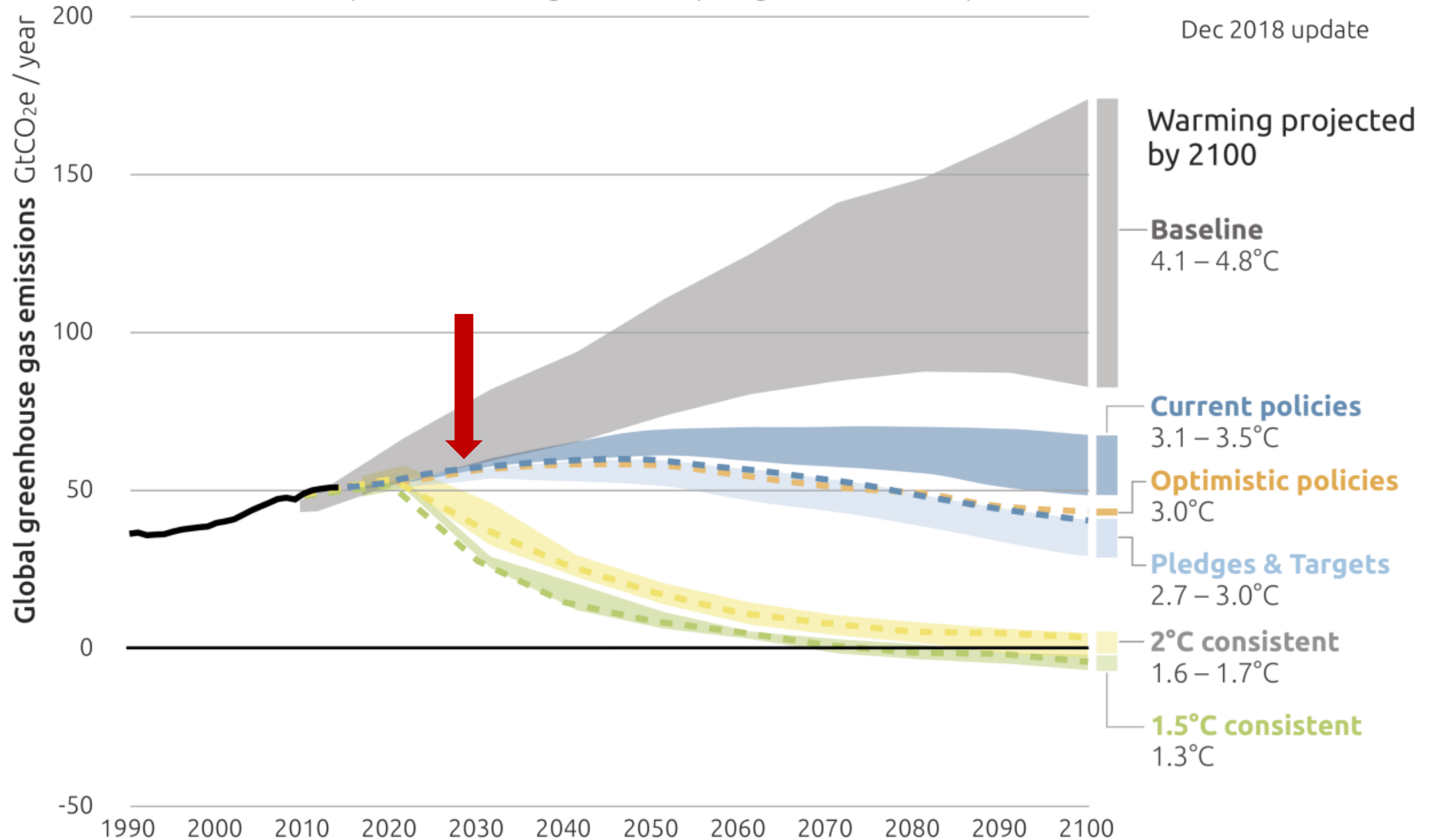
- **Secure finance for new and sustainable urban developments and "selling the talk" to financiers and other investors**
- **Bending the emission curve, we are running out of time!**

2100 WARMING PROJECTIONS

Emissions and expected warming based on pledges and current policies



Dec 2018 update





Where do we go from here?

Diamond Developers is establishing an institute **to develop and share knowledge and expertise related to sustainability and the built environment**. The institute is uniquely positioned to support the goals of the Paris Agreement.

We deliver our mandate through:



1

INNOVATIVE
RESEARCH

2

PROFESSIONAL
TRAINING

3

INCUBATION
STARTUPS

4

UNIQUE EVENTS
& CONFERENCES



UCDAVIS
UNIVERSITY OF CALIFORNIA

دبي
Tourism السياحة

مؤسسة محمد بن راشد
لتنمية المشاريع الصغيرة والمتوسطة
DUBAI SME



25+5
SDG  **Cities**
Leadership Platform

MOU Signing

مؤسسة محمد بن راشد
للتنمية المشاريع الصغيرة والمتوسطة
DUBAI SME



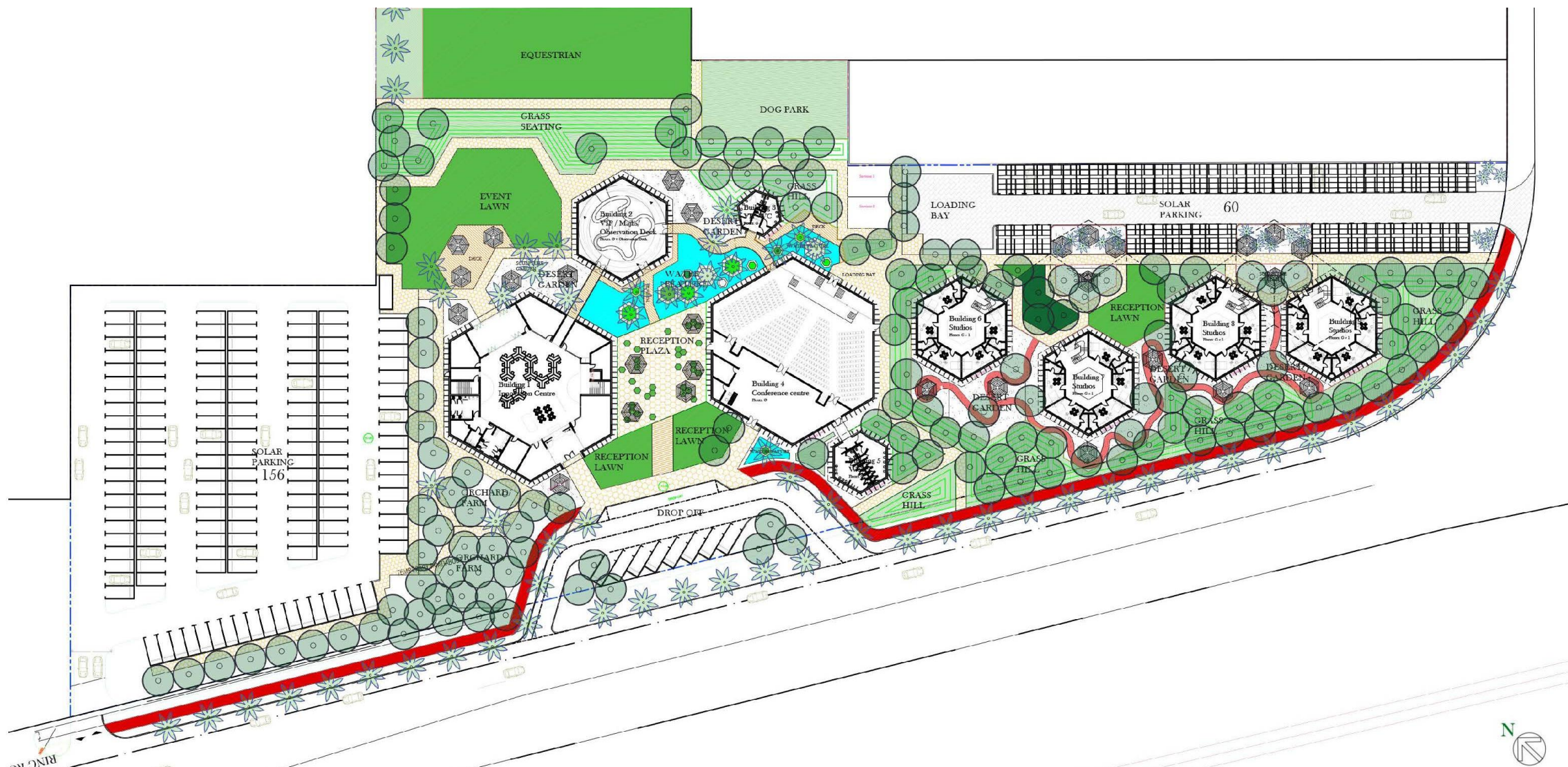
“What we
invest in today
will determine
the world we
live in
tomorrow”

UAE's 1st
Sustainable
Investment Firm

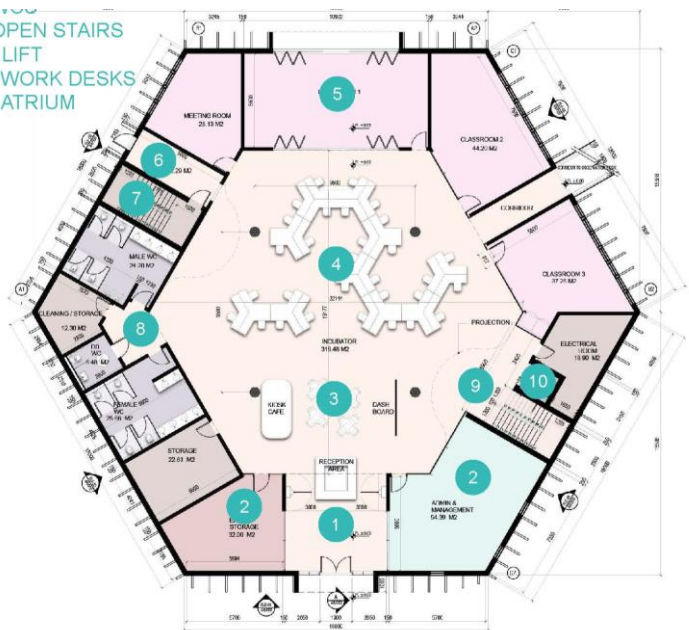
Providing highly
structured
sustainable
investment
products and
advisory services,
or 'Impact
Investment' to
clients and
investors



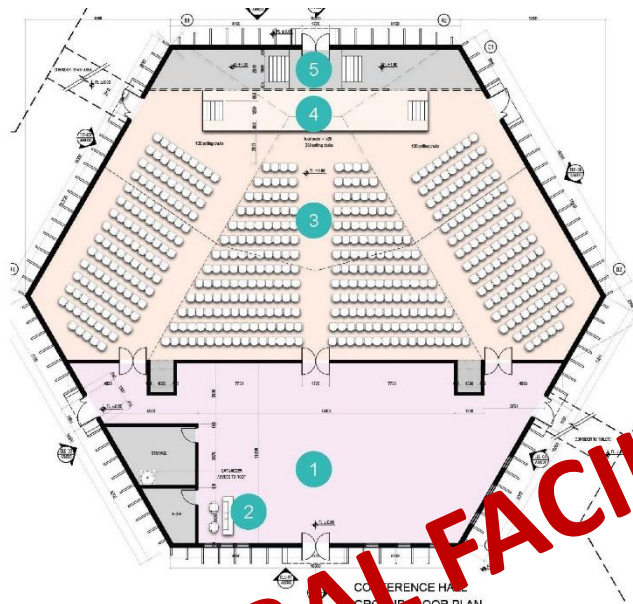
Diamond Developers is building the **SEE Institute**, a CARBON NEUTRAL FACILITY:
Business Incubator, Conference Center, Observation Tower



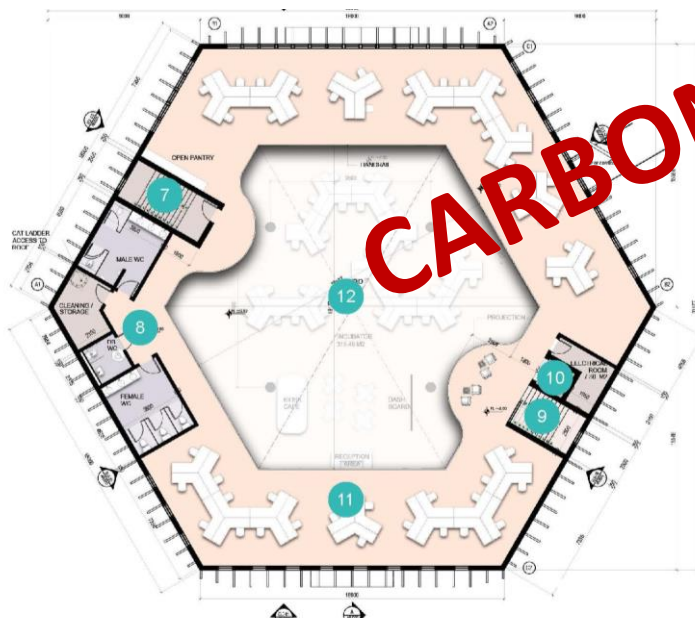
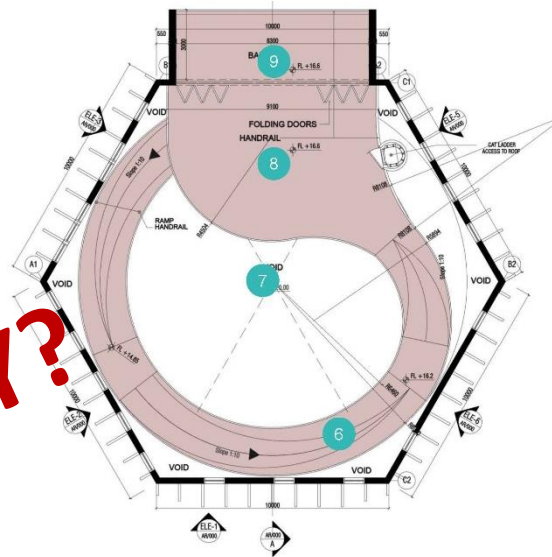
- 9. OPEN STAIRS
- 10. LIFT
- 11. WORK DESKS
- 12. ATRIUM



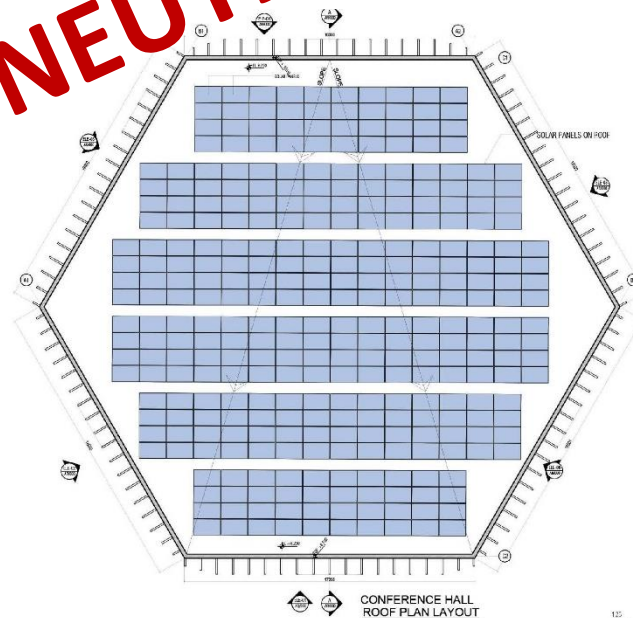
GROUND FLOOR PLAN



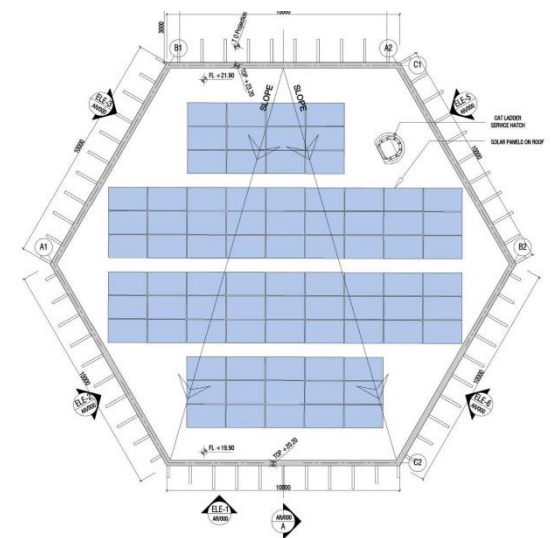
CONFERENCE HALL
GROUND FLOOR PLAN



FIRST FLOOR PLAN



CONFERENCE HALL
ROOF PLAN LAYOUT



CARBON NEUTRAL FACILITY?

The Way Forward

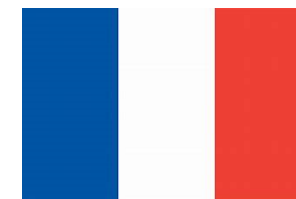
- 1) Sustainability is not rocket science, but we need to raise the bar. Technology is a powerful and affordable enabler.
- 2) A community purpose-built for sustainability attracts and promotes a culture to match its goals; sustainability is in high demand!
- 3) Paying attention to governance, communication, and decision-making will help achieve scale; ripple effect.

Building the first sustainable city is great. Building the second is greater!

From Dubai to:

Sharjah,
Abu Dhabi
Bahrain
Egypt
Oman
Jordan
Mali
Senegal

...



“

The greater danger for most of us lies not in setting our aim too high and falling short; but in setting our aim too low, and achieving our mark.

Michelangelo

Thank You