UNITED ARAB EMIRATES
MINISTRY OF CLIMATE CHANGE
& ENVIRONMENT

الحـوار الوطنـي
للطموح المناخي
National Dialogue for Climate Ambition

The Second National Dialogue on Climate Ambition (NDCA)

"The Energy Sector: A catalyst towards carbon neutrality"

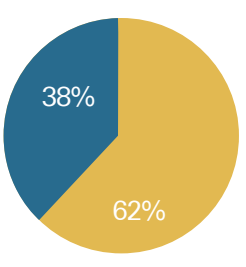
The Energy Sector

53 representatives from power and energy sectors

The energy sector is a major player when it comes to reducing more than **60%** of our greenhouse gas emissions

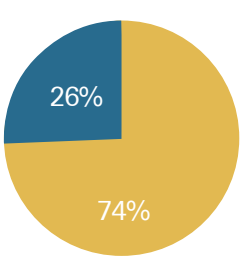
Baseline Emissions Contribution 2016

In 2016, electricity generation was responsible for 62% of UAE emissions



NDC Emissions Contribution 2030

By 2030, the current strategies and plans will lead to a significant reduction of emission contribution from the power sector

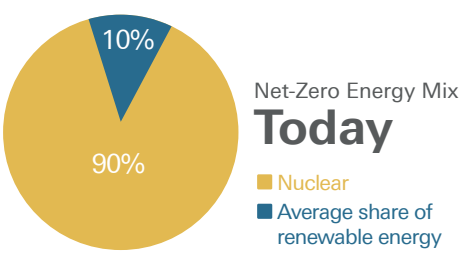


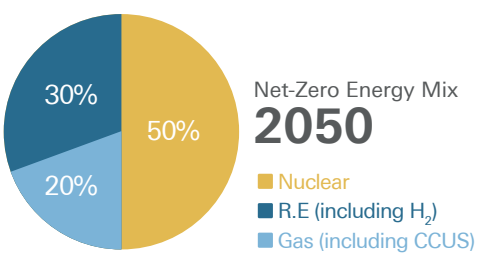
Approach

1. **Design Today's Net Zero Pathway for the Power Sector:** looking at levers to achieve Net Zero today, Net Zero energy mix, constraints, confidence level
2. **Design the 2050 Net Zero Pathway for the Power Sector:** looking at levers to achieve Net Zero by 2050, Net Zero energy mix, constraints, confidence level
3. **PESTEL Analysis and Global Trends:** global mega trends that will impact the future of the energy sector
4. **Challenges and Enablers:** challenges that hinders achieving net zero in the energy sector & enablers required to overcome the challenges
5. **What is the optimal pathway to Net Zero for the Power Sector:** advantages, net-zero energy mix, considerations and transition needs (5-year transition target for emissions)

Design Net-Zero Pathway

for the Power Sector





PESTEL Analysis & Global Trends

Global mega trends that will impact the energy sector

- Green H_2 production and usage
- Circularity
- CCUS
- Carbon pricing & trading

How are those trends reflected in the PESTEL analysis

Political
- Level access to high-efficiency assets

Environmental
- Energy efficiency and optimization programs
- Sustainable aviation fuels

Social
- Green jobs
- Enhanced air quality

Technology
- Level access to high-efficiency assets
- Infrastructure

Economy
- Digitalization
- Carbon pricing/ market
- Sustainable aviation fuels

Legal
- Regulation/ carbon price

Challenges & Enablers

in achieving net zero in the energy sector

Challenges

1. Energy efficiency – EE is expensive
2. Carbon not priced
3. Infrastructure/grid readiness
4. Absence of policy and regulatory framework to incentivize net zero
5. Lack of local R&D and innovation
6. Private sector acceptance

Enablers

1. Interconnection of GCC utility networks and grids
2. Electrification
3. Carbon pricing laws
4. More robust energy regulations
5. R&D for technology adapted to the UAE
6. Federal and local integration

Proposed Initiatives & enablers

- Increasing energy efficiency (EE) consistently to manage growing demand
- Investing in energy storage technologies to promote the use of renewable energy (RE)
- Maintaining the percentage of power generated by gas with CCUS
- Expanding the use of hydrogen as a sustainable source of energy
- Accelerating the deployment of RE (solar)
- Maximizing the share of nuclear energy in the energy mix
- Establishing regional interconnection to share access to clean energy
- Leveraging electrification to tackle hard-to-abate sectors
- Carbon pricing and trading

Way forward

Set a roadmap with the power sector to explore the previously mentioned solutions in order to **reduce the CO_2 emissions from the sector**

Work toward accelerating the deployment of existing **energy strategies & plans**

Explore new **sustainable energy sources or carriers**, such as H_2, as well as technologies like CCUS or storage