

IRENA

Setting Renewable Energy Targets....and achieving them

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Insights from the UAE experience

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Agenda

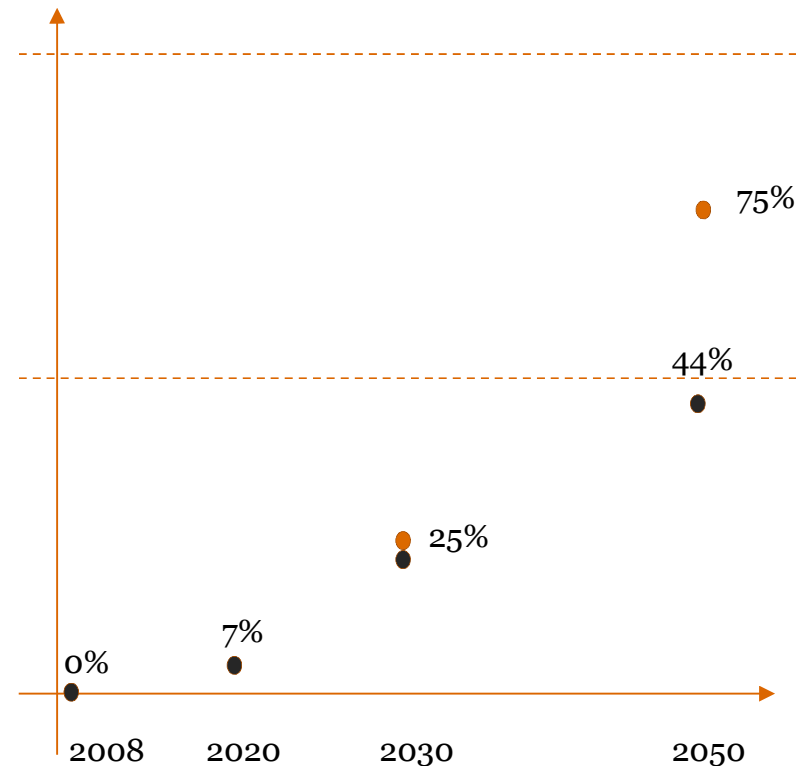
- **Targets ?**
 - What kind of targets?
 - SMART targets?
- **UAE Experience - TARGET to PLAN to RESULTS**
 - Abu Dhabi
 - Dubai
 - UAE
- **Lessons learnt**
 - DRIVERS
 - IMPLEMENTATION STEPS
 - STATIC vs. DYNAMIC

RE targeting ambitions for the UAE have evolved from 1% to 44% in just 5 years...

Today's RE share is under 1% - it will reach 7% in the next 3 years

In 2008/9 – first goals were set at 7% Abu Dhabi (2020) and 1% Dubai (2020)

By 2017 – ambitions have grown to 25% Clean Energy by 2030 (Dubai) – of which ca. 18% RE and 44% Renewable Energy for all of UAE



- = RE
- = Clean Energy (RE & Nuclear)

TARGETS...

What kind of targets?

- Capacity? (% , MW)
- Generation? (% , TWh)
- Final Energy Consumption? (% , Gj) – incl. Transport energy...

- For utilities? (Quotas?)
- For a city?
- For government?

Not “one right answer” – clarity is key

SMART targets?

Specific

Measurable

Agreed

Realistic

Time Bound

Abu Dhabi – RE Targets to Plans to Results

**Starting Point
(2006)**

0MW installed, 0% generated
Solar PV cost above 20 cents/KWh

Initial Target

7%

Plan

Masdar City
Masdar Power/Projects
ADWEC
IRENA and RE Atlas
Pilot & Data: First 10MW (EPC)

Policy Enablers

- Government support schemes for initial PPAs
- Applying tendering/Auctions scheme for IPP bidding
- Emerging PV Rooftop scheme

Target Revision

In progress

Results

<2.5 cents/KWh
for 350MW->880MW

10+100+880 = ca. **1GW** by 2020
(ca **8%** of 12GW Total) – exceeds target



Dubai – RE Targets to Plans to Results

Starting Point (2006)

0MW installed, 0% generated
Solar PV cost above 20 cents/KWh

Initial Target

1% (2020), 5% by 2030

Plan

DEWA

Sheikh Mohammed
Bin Rashid Solar Park

Pilot & Data First 13MW

Policy Enablers

- Integrated Energy Strategy 2030 (Energy Mix) & Clean Energy Strategy 2050
- Developed tendering/auctions scheme for IPP bidding
- Emerging Shams Dubai Solar Rooftop Scheme
- Dubai Green Fund

Target Revision

25% by 2030, 75% by 2050 (Clean Energy)
4GW PV, 1GW CSP, up to 1GW Rooftops (40-60MW p.a.)

Results

5.84 cents/KWh (200MW)
2.9 cent/KWh (800MW)

13+200+800 = >1GW by 2020 – exceeds target



Building awareness of RE and buy-in to TARGETS over time



Annual **WORLD FUTURE ENERGY SUMMIT** and **IRENA assembly** in AD, WETEX and WGES in DUBAI, INTERSOLAR etc

Skills & Capacity Building: MASDAR Institute, IRENA Scholars, GGGI Capacity Building Program etc

Lessons learnt

CHANGING DRIVERS

- pioneering ambition to commercial imperative

SMART TARGET SETTING

- clarity is key, realistic and time bound

DYNAMIC TARGET SETTING

- learning and adapting to changing economics

HOLISTIC APPROACH

- a system of policy, awareness, capacity, financing...

Thank You

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