

## Who We Are



Masdar is Abu Dhabi's renewable energy company. We work to advance the development, commercialisation and deployment of clean energy technologies and solutions.

We serve as a link between today's fossil fuel economy and the energy economy of the future.

We are a commercially-driven company wholly-owned by the Mubadala Development Company.

*"We must not rely on oil alone as the main source of our national income."*

*"We have to diversify the sources of our revenue and construct economic projects that will ensure a free, stable and dignified life for the people."*

Sheikh Zayed bin Sultan Al Nahyan  
Founding Father of the UAE



## UAE PPF – Projects Overview

# Mission Accomplished for the UAE-Pacific Partnership Fund: 11 clean energy projects delivered by Masdar



ROOFTOP PV



SOLAR FARM



WIND FARM



WATER TREATMENT PLANT

- 6.5 megawatts of renewable energy capacity
- 3.2 million litres of imported diesel fuel replaced annually, equivalent to US 3.7\$ million savings per year based on 2015 diesel prices



# Energy Issues

- *What isn't working-* Continued dependence on fossil fuel based generation to meet base load energy demand.
- *Why it isn't working;* High operating cost and dependence on imported diesel fuel. Due to the high operating cost it is overwhelmingly difficult to invest in alternative sources of energy in order to reduce dependence on fossil fuel based generation. Furthermore, any interruption in the diesel supply chain directly affects the energy providers ability to meet energy demands.
- *Mistakes to avoid going forward;* Adopting large amounts of renewable energy requires well planned integration methods and foresight over the entire electrical grid.
- *Which technologies or processes present barriers;* Initial investments in renewable energy must be followed by a process of reinvestment in grid infrastructure to further increase the ability to adopt high levels of renewable energy (high penetration). This is important as current fossil fuel prices are low; the market price of diesel fuel will increase over the next 5 years thus adoption of RE will become increasingly difficult for countries with high levels of fossil fuel dependence.
- *Which technologies or processes present solutions;* Battery storage solutions offer a unique opportunity to stabilize RE penetration while at the same time decrease grid loses resulting in lower operational costs.



# Renewable Energy Integration Success Stories

- *What worked;* Successful partnerships between project funders and governments/utilities have allowed for an initial uptake in renewable energy supply. The UAE PPF required the local utilities to be the off taker and operator of the renewable energy asset.
- *Why it worked;* Utilities had an inherent desire to be part of the design and development of the project in order to ensure a desirable outcome.
- *How it works;* Positive pressure was maintained on the funder to identify and address grid integration issues in partnership with the utility. Furthermore, the utilities partook in the construction of the asset further increasing the local knowledge base. This also allowed for a smooth handover from commissioning to operation of the assets.



# Thankyou

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