

# The Kingdom of Saudi Arabia National Renewable Energy Program

RENEWABLE ENERGY PROJECT DEVELOPMENT OFFICE (REPDO)

## Investing for the long term

- Localization is key
- Localize R&D, manufacturing and other sections of the value chain



## Create renewable energy industry

- Encourage Public-Private partnerships
- Allow the private sector to buy & invest in Renewable Energy (RE)



## National Renewable Energy Program

- Responsible for all RE related initiatives in the Kingdom
- Review legal & regulatory frameworks



## Renewable Technologies Targeted

Solar PV



Wind



Solar CSP



## Execution Model

**Saudi  
Arabia  
is open  
for Business**

### IPP Model

- Open for Local and International companies with experience in the electricity sector
- Multiple bidders – Award goes to lowest Levelized Cost Of Energy (LCOE) compliant with bid criteria
- PPA signed by Limited Liability Company (LLC) financially guaranteed by Saudi Power Procurement Co (SPPC).

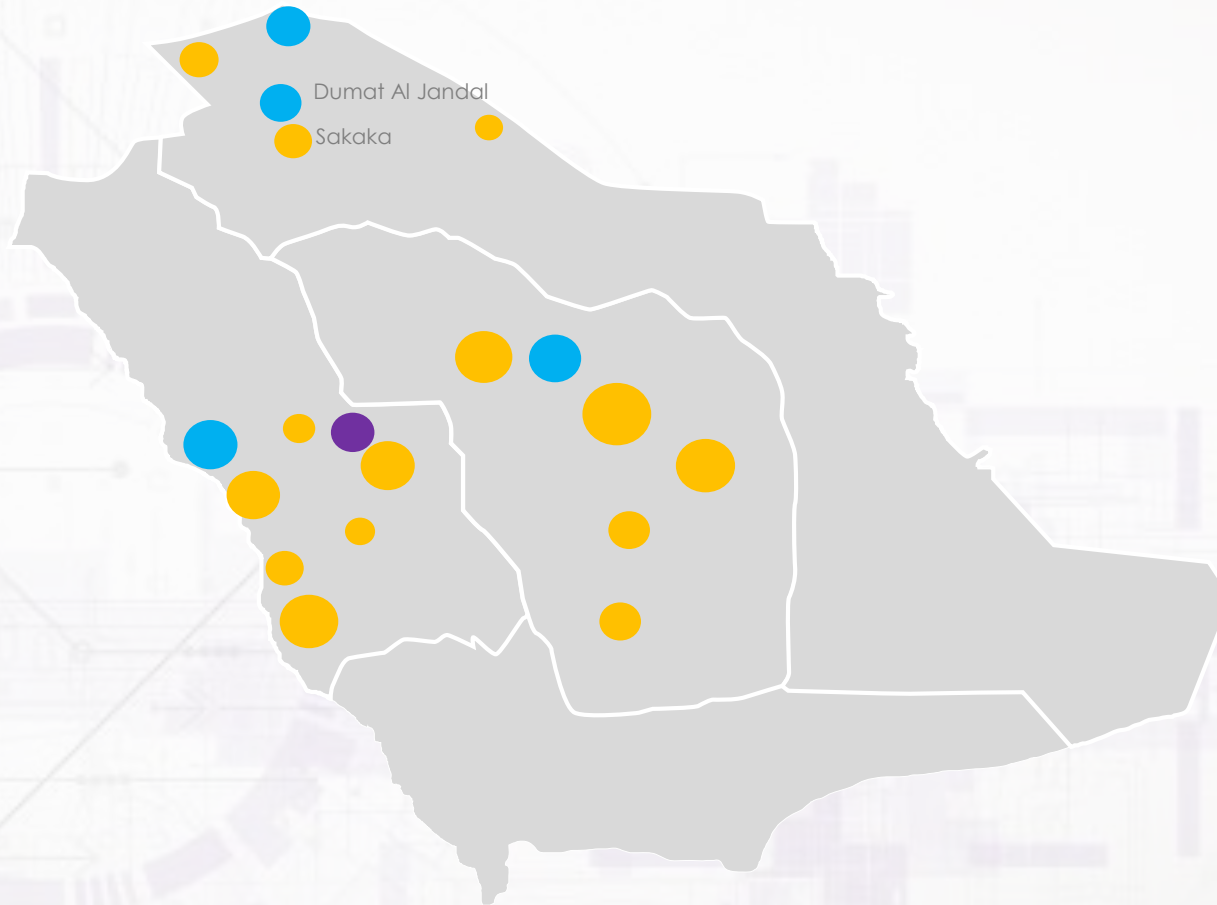
## Location, technology and capacity of Renewable Energy Parks

+20  
Projects

+11.5  
GW

### Legend

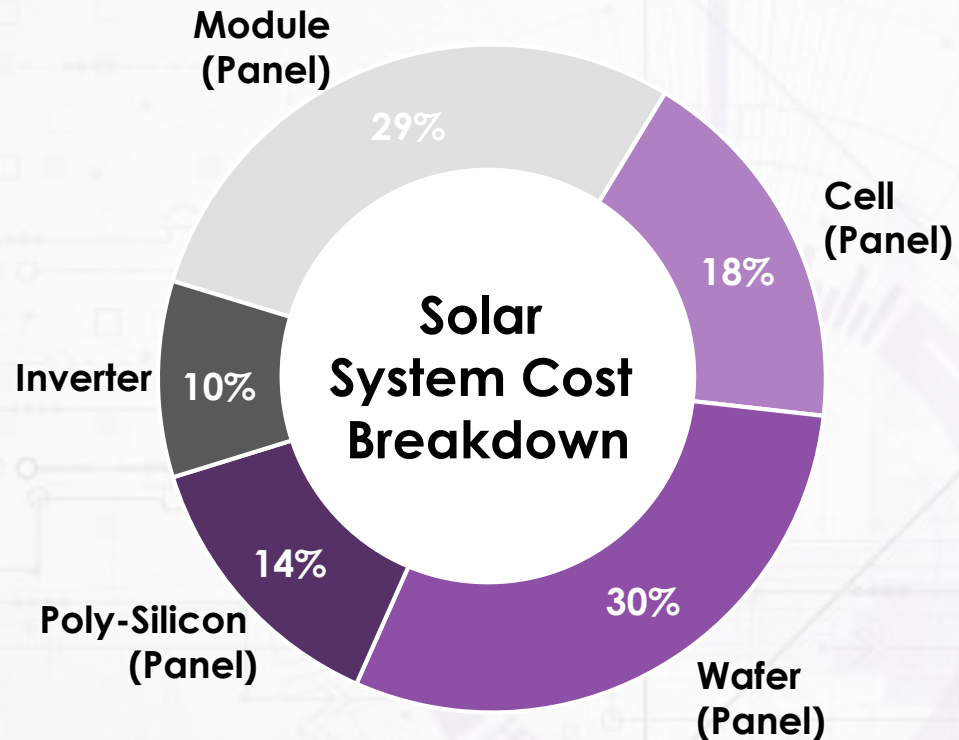
- Solar PV
- Wind
- CSP
- +1,000 MW
- ~400 MW
- < 50 MW



Pre-development activities provide certainty and deliver lower project costs



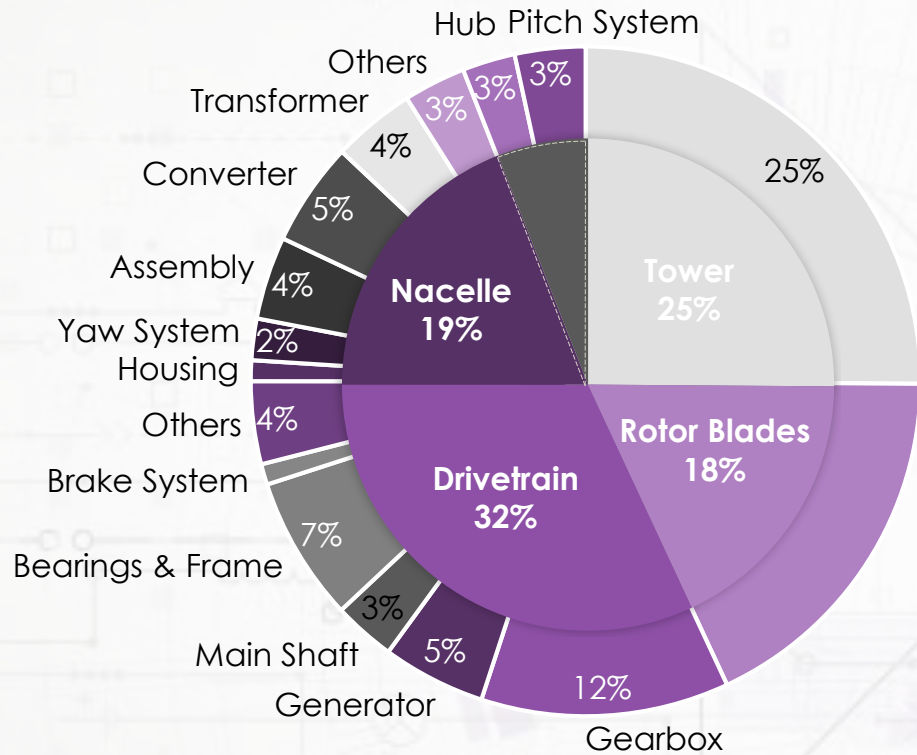
Typical Solar PV Cost Breakdown



## Solar Market Trends

- Global capacity is expected to double between every 5 years since 2015
- Solar panel costs have decreased by ~60% over the past 5 years
- OEMs are typically vertically integrated across the value chain
- Solar market is highly concentrated in South East Asia (i.e., China and Taiwan) due to low production cost advantages
- Chinese low cost products have led to global overcapacity and high inventory levels driving many suppliers to shut down

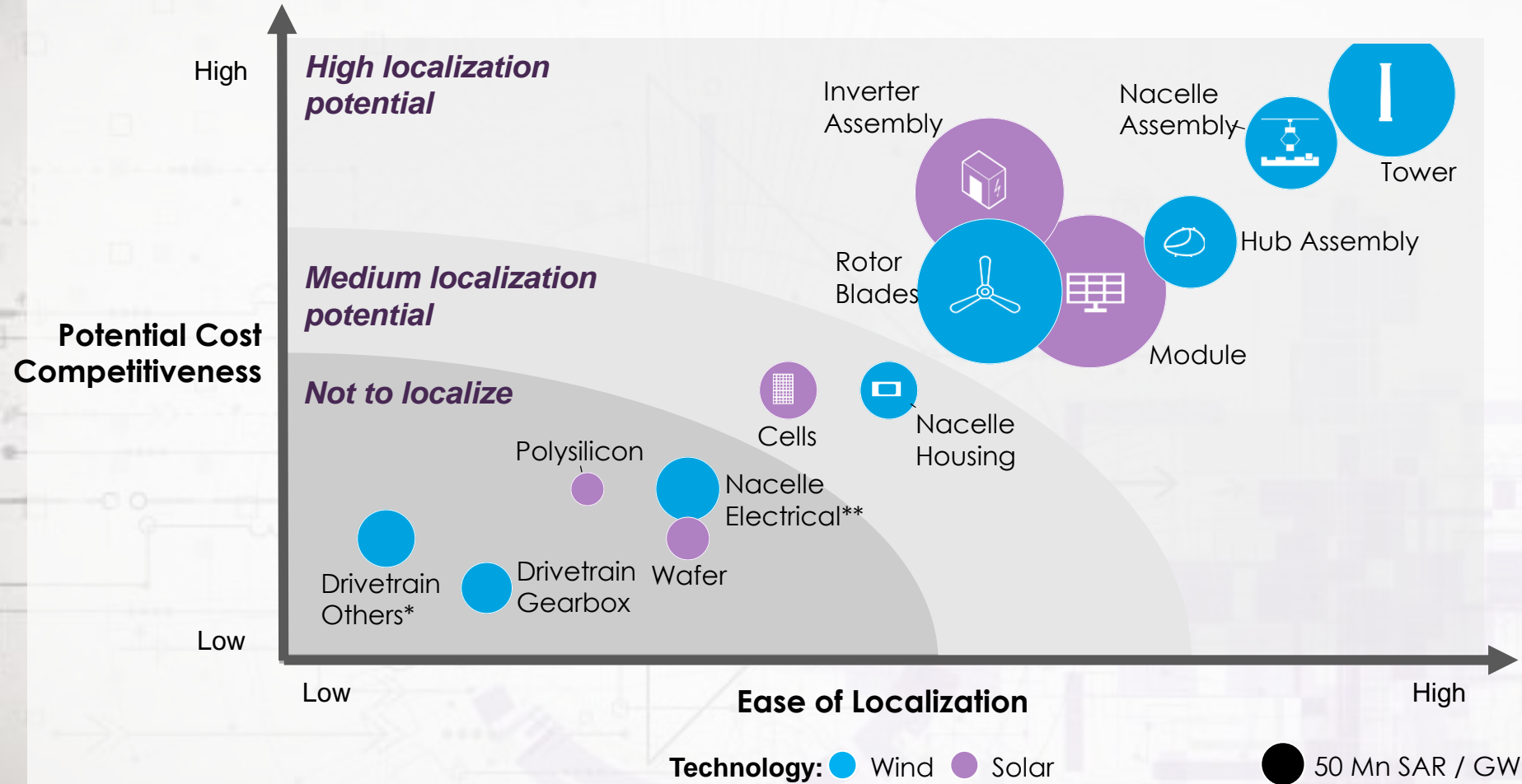
Typical Wind Power Cost Breakdown



## Wind Market Trends

- Wind manufacturing market is dominated by onshore turbines due to high maturity, relatively high efficiency and ease of construction
- Global capacity is expected to increase by 60% (half is in China)
- Wind Power Supply Chain components support other industries



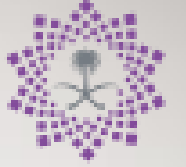


## Defining the Direction



- First Round ( Awarded 300 MW PV Project) & Bidding stage of 400 MW Wind Project) : Focus on **Job Generation** and **Market maturity**
- Later Rounds will have gradual shift to **Industry Development**, covering the whole Industrial Scope and Life Cycle

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