## Solar Energy Development in Singapore

## **Solar Energy Offers Greatest Potential**

Due to our physical constraints, Singapore has limited renewable energy options –

Renewable Energy	Our Constraints
Hydro	Singapore's terrain is relatively flat
Tidal	Tidal range in Singapore is generally low and our waters are relatively calm
Wind	Singapore has low average wind speeds

• Nonetheless, Singapore is located in the tropical sunbelt with good irradiance. Hence, amongst the renewable energy technologies, solar generation offers the greatest deployment potential.

## Singapore Fully Supports the Use of Solar Energy

Solar energy will benefit Singapore when it becomes commercially viable	<ul> <li>Environmental Sustainability</li> <li>Energy Security</li> <li>Price Competitiveness</li> </ul>
There are also challenges that we need to address	<ul> <li>Intermittent in nature and fluctuates based on weather conditions, cloud cover and shadows</li> <li>Requires reserves from conventional power sources to ensure system stability</li> </ul>
We are taking proactive steps to facilitate the entry of solar energy	<ul> <li>Enhancing market and regulatory framework</li> <li>Building up internal capabilities (e.g. solar forecasting)</li> <li>Ensuring that the power system is able to manage the intermittency</li> </ul>

## **Growing Solar Interest in Singapore**

- Market interest in solar has been growing in Singapore. Since 2009:
  - The number of installations has increased from 59 to 636 (end 2014);
  - > The installed capacity has increased from 1.5 MWac to 25.5 MWac (end 2014).
- The take-up is expected to accelerate over the next few years, as prices fall and technology continues to improve.

