

The Roll-Out of Solar Technologies In Southern China

How Realistic and How Soon?

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The Choice of Energy

Fossil

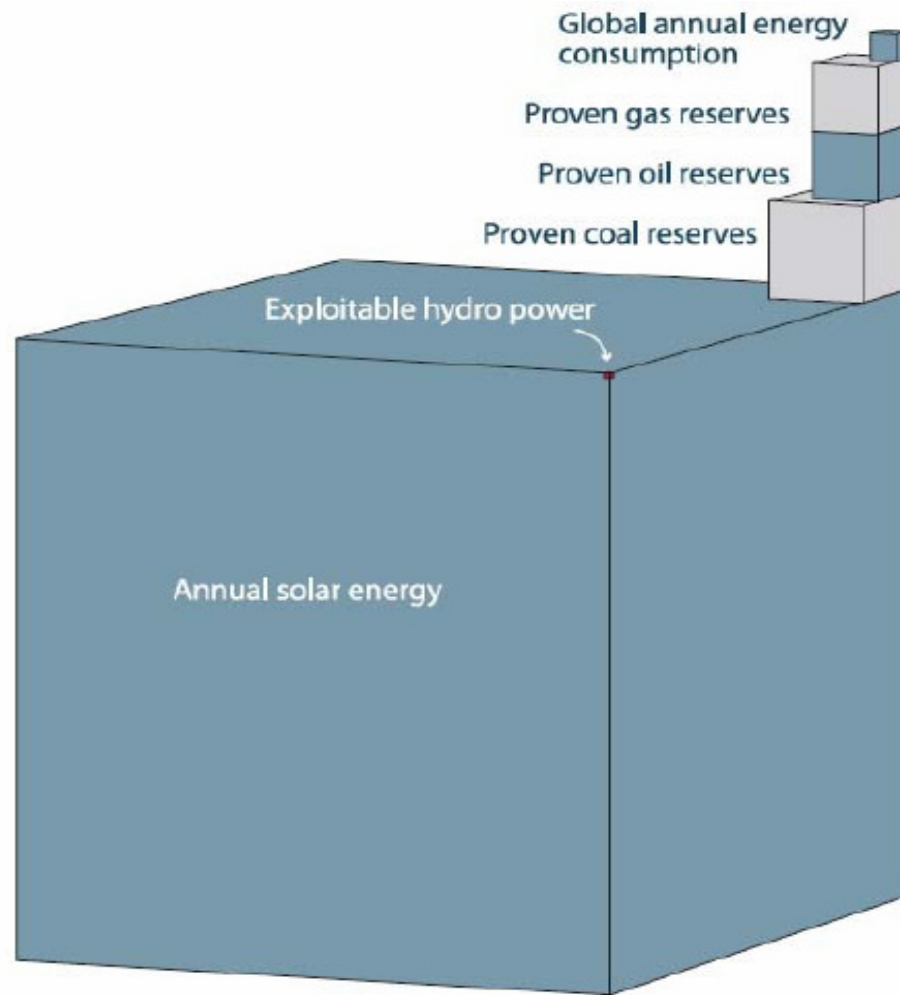
Nuclear

Renewable

Why Solar Energy?

- Sun's average radiation flux density - 343W/m^2
- 70% absorption - 237W/m^2
- Flux density received at surface - 165W/m^2
- Mankind's energy flux density - 0.03W/m^2
- The flux density received at the Earth's surface is over 5,000 times more than the energy which man currently uses

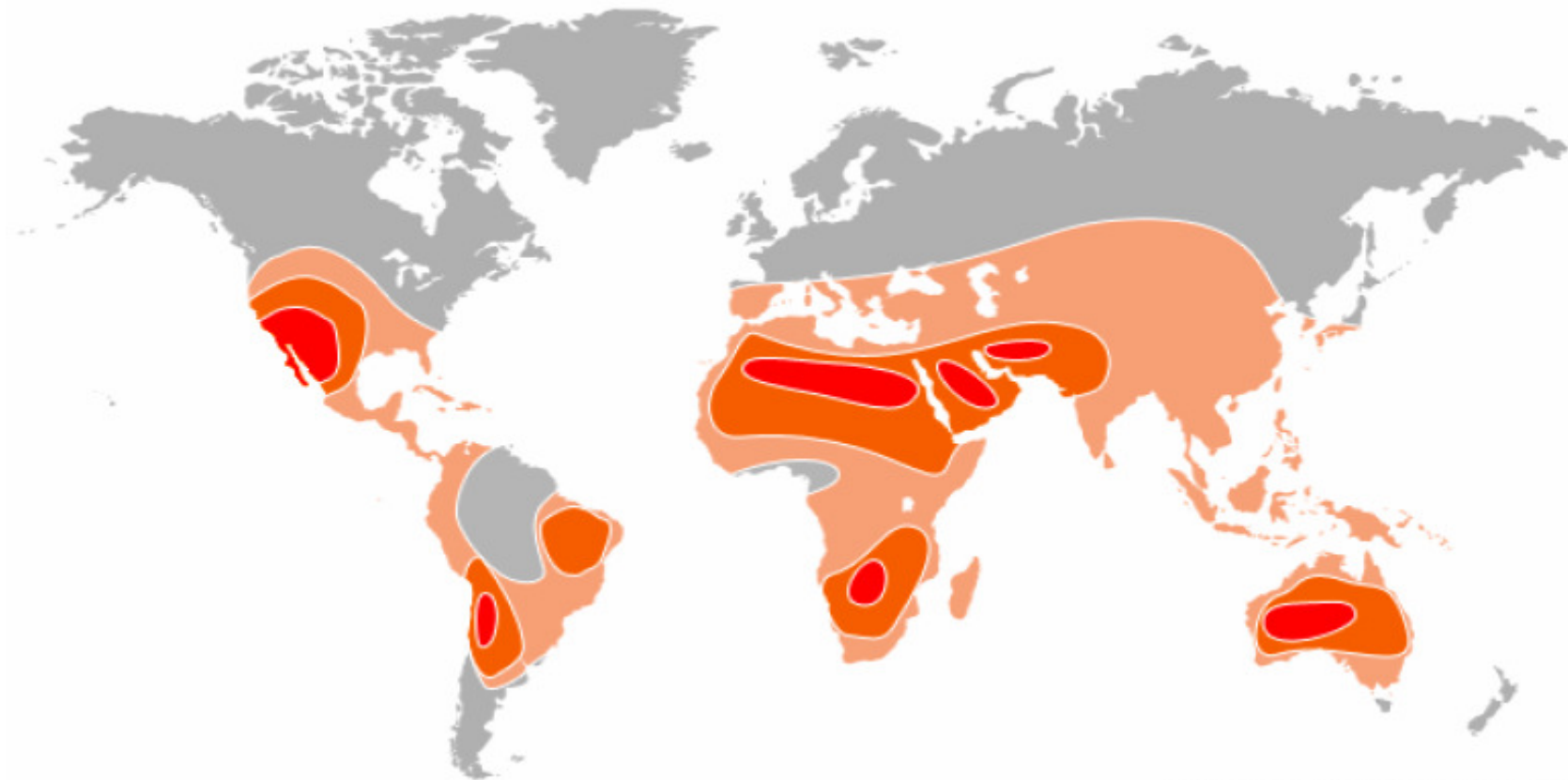
Why Solar Energy?



Solar Energy

**Capture,
Conversion,
Storage
and
Delivery**

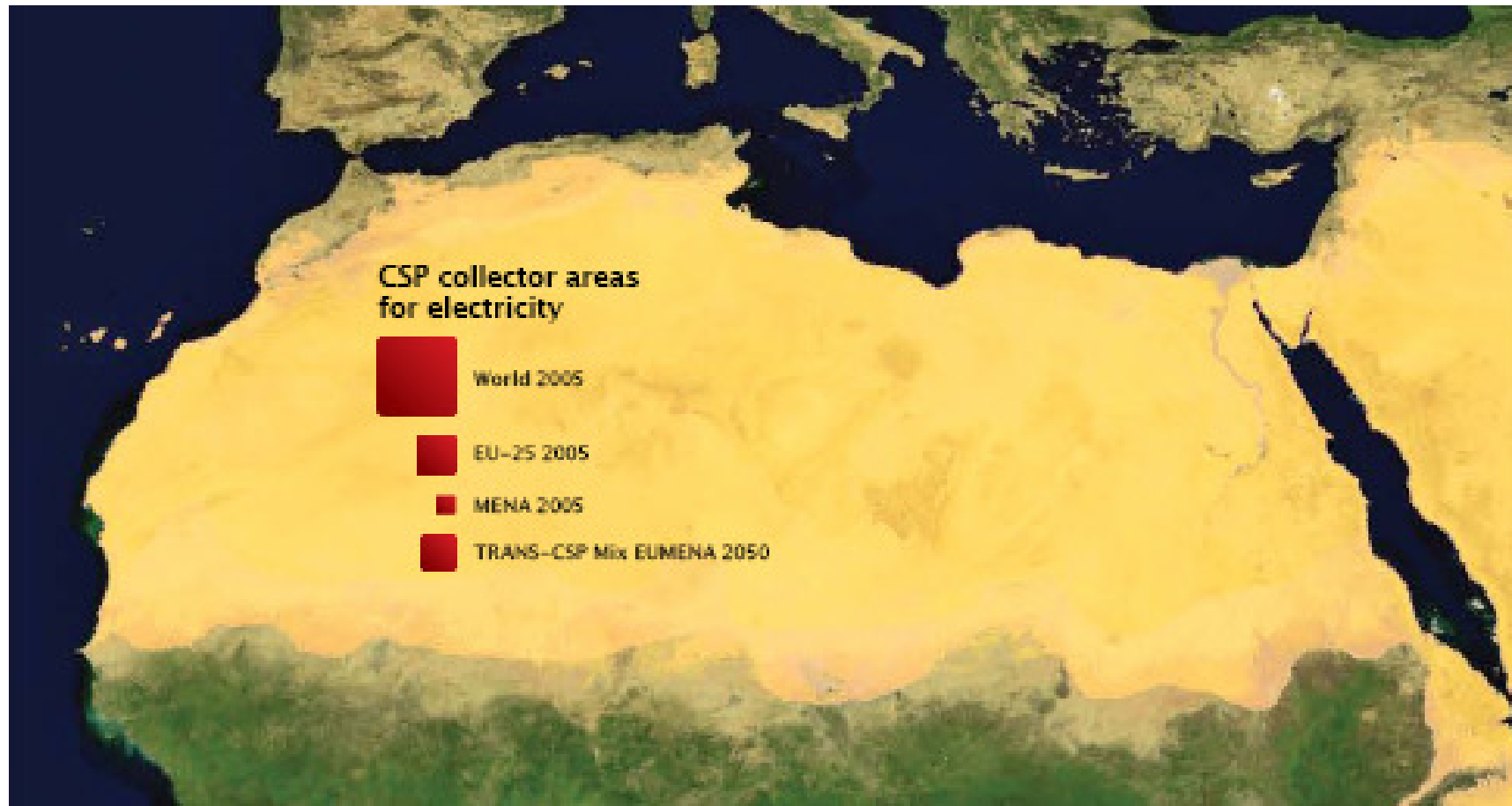
Distribution of Solar Resources across the World



Source: Solar Millennium AG, Erlangen

The Greatest Solar Potential in the World

www.desertec.org



Solar Thermal vs Solar PhotoVoltaic

(IEA-SHC Solar Heat Worldwide 2009)

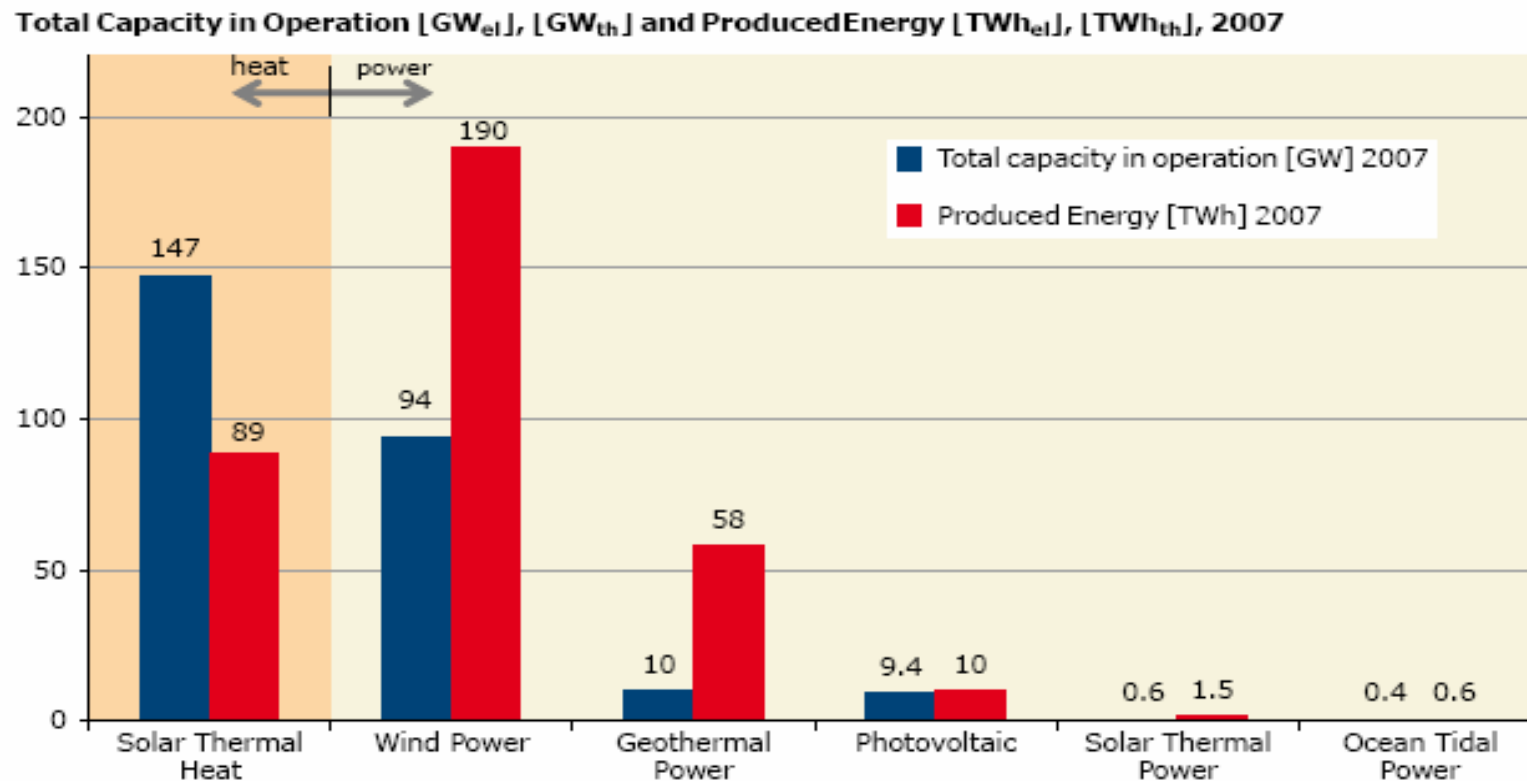


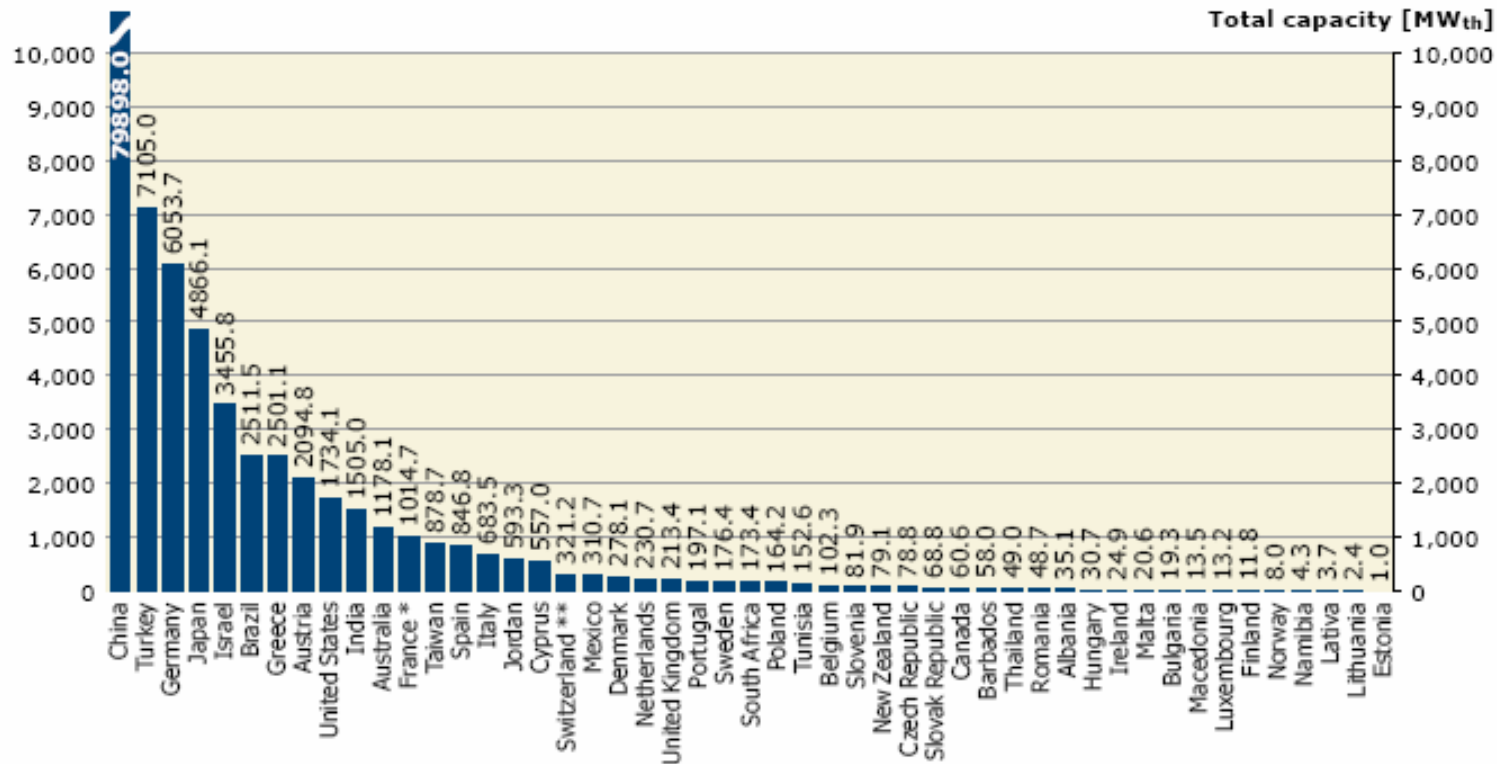
Figure 2: Total capacity in operation [GW_{el}], [GW_{th}] 2006 and annually energy generated [TWh_{el}], [TWh_{th}].

Sources: EPIA, GEWC, EWEA, EGEC, REN21 and IEA SHC 2008

Where Does China Fit Into Solar Thermal?

(IEA-SHC Solar Heat Worldwide 2009)

3.1 Total capacity of glazed flat-plate and evacuated tube collectors at the end of 2007

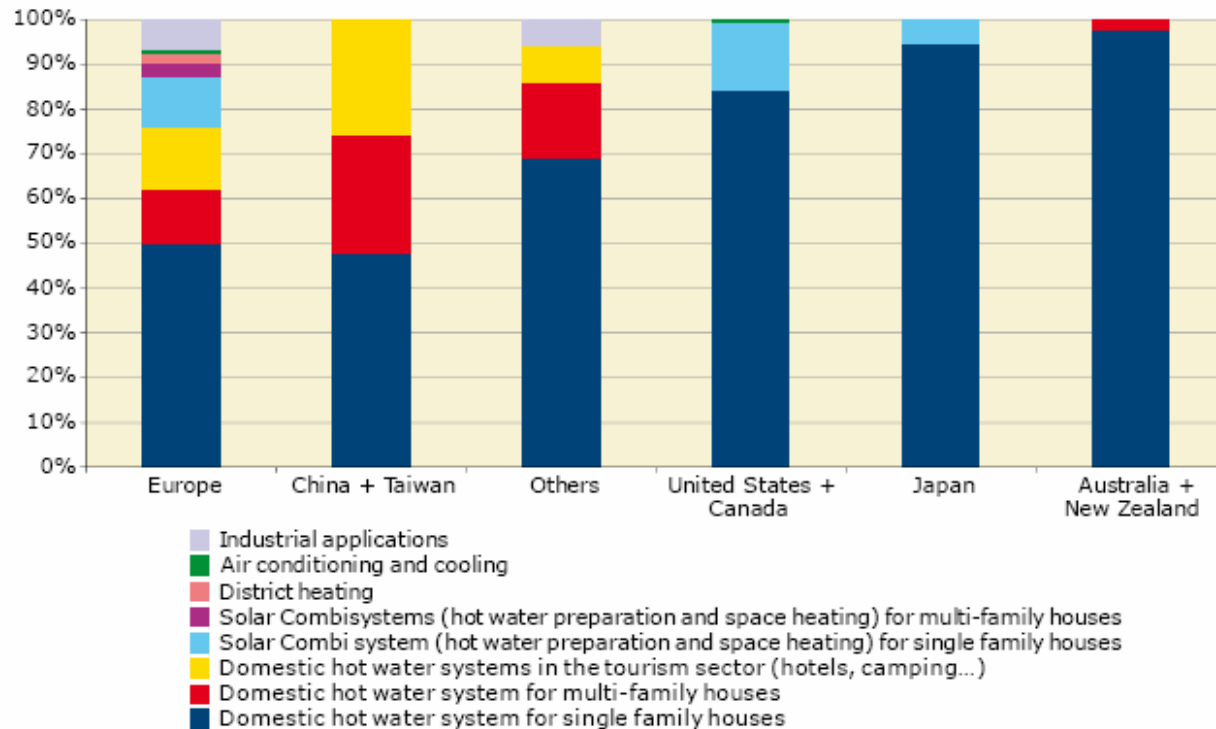


* France: includes Overseas Departments

Figure 5: Total capacity of glazed flat-plate and evacuated tube collectors in operation at the end of 2007

How is China Using Thermal Solar?

(IEA-SHC Solar Heat Worldwide 2009)



Europe: EU-27, Albania, Macedonia, Norway, Overseas Departments of France, Switzerland;
 Others: Barbados, Brazil, India, Israel, Jordan, Mexico, Namibia, South Africa, Thailand, Tunisia and Turkey;
 Combisystems: Systems for hot water preparation and space heating; DHW: Domestic hot water systems;
 MFH: Multi family house; SFH: Single family house

Figure 32: Distribution of different solar thermal applications by economic region, which were installed in the year 2007

How Has China Developed Solar Energy in the Past?

How Will China Develop Solar Energy in the Future?

Policy

Practice

Where Does Hong Kong Fit Into Solar?

Solar Applications in Residential
Solar Applications in Commercial

Hong Kong's Role as a Green City

What Can Be Done in the PRD?

How To Encourage Greater Energy and Environmental Efficiency in the PRD?

Emerging Global Benchmarks for Building Efficiency

The PRD as a Manufacturing Centre for Solar Applications

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