

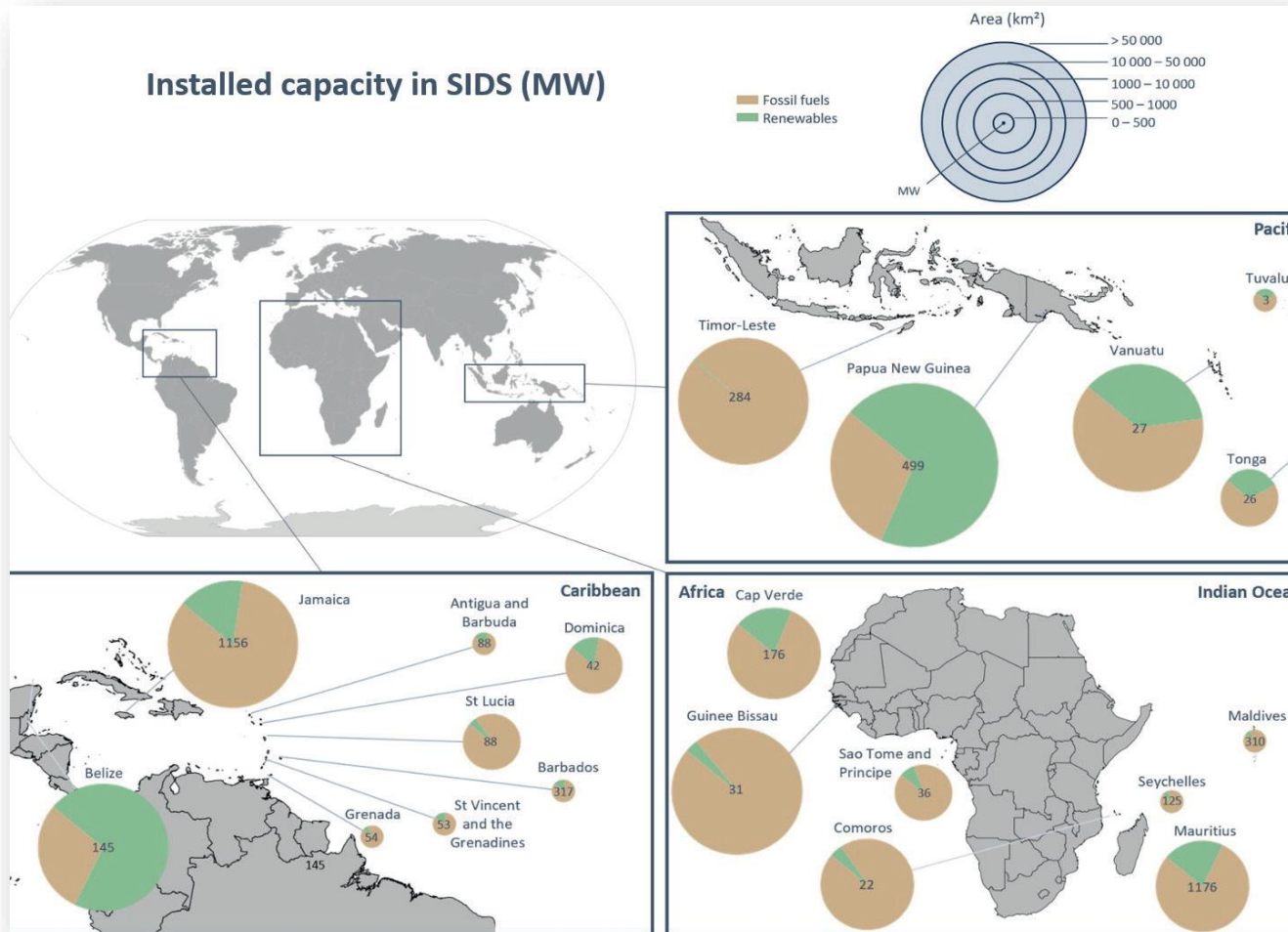
Empowering Small Island Developing States: Scaling Up Renewable Energy for Resilient Economic Growth

September 25, 2024





SIDS – a heterogenous group facing similar challenges to scale up RE



Key characteristics of SIDS studied:

- Very small and isolated grids
- Heavy reliance on fossil fuel
- Burden of fossil fuel subsidies
- High tariffs (~31 USDc/kWh)
- Low RE and VRE integration
- Low private sector investment



There are abundant opportunities to scale up RE in SIDS



High renewable resource availability



Increasing energy security



Costs of RE can often compete against prevailing generation costs



Ambitious government targets set out in NDCs



C&I sector demand, particularly eco-tourism



SIDS face core and cross-cutting risks in RE development

Climate change

Scale

Development risk

Grid, land, resource,
Legal, procurement, political risk

Operational and financing risk

Offtaker, country sector risk,
market (currency, financing),
macroeconomic, political risk

Although these are common risks faced by RE development in emerging markets, they get accentuated due to the **small scale** of SIDS and **climate change vulnerability**.



Small scale power systems inhibit private investment and drive-up costs

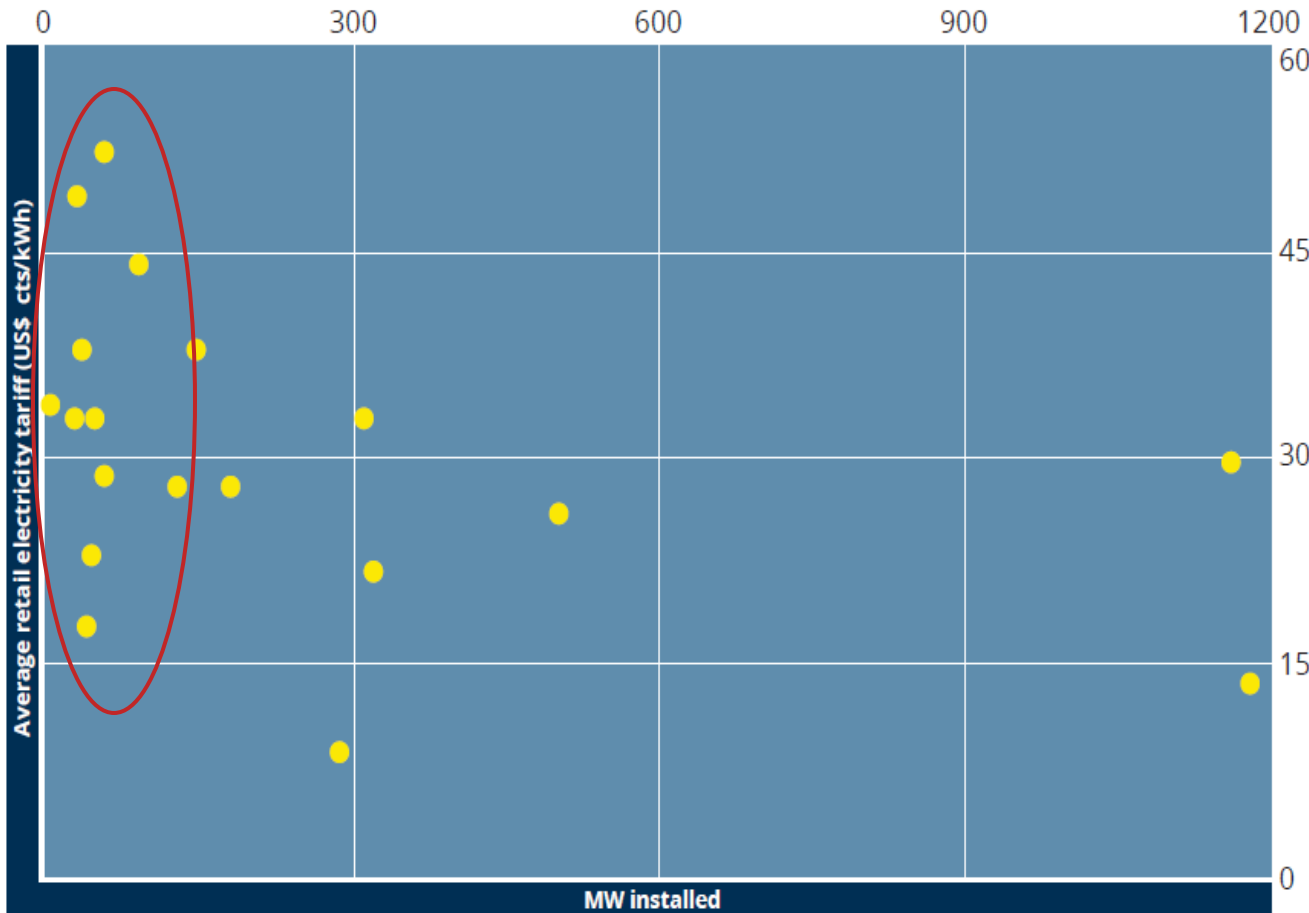


Figure 2 Tariff as a function of selected SIDS' national grid size (source: own analysis)

Size matters (for investors)

- Grid sizes tend to be small, with smaller project sizes
- Limited interest from investors, given financing requirements are below their minimum ticket size

CAPEX premiums drive up prices

- Most investors have a high capex premium reflecting lack of economies of scale and higher risks
- This can deter decision-makers in SIDS who expect lower PPAs



SIDS have high climate vulnerability and need support to adapt



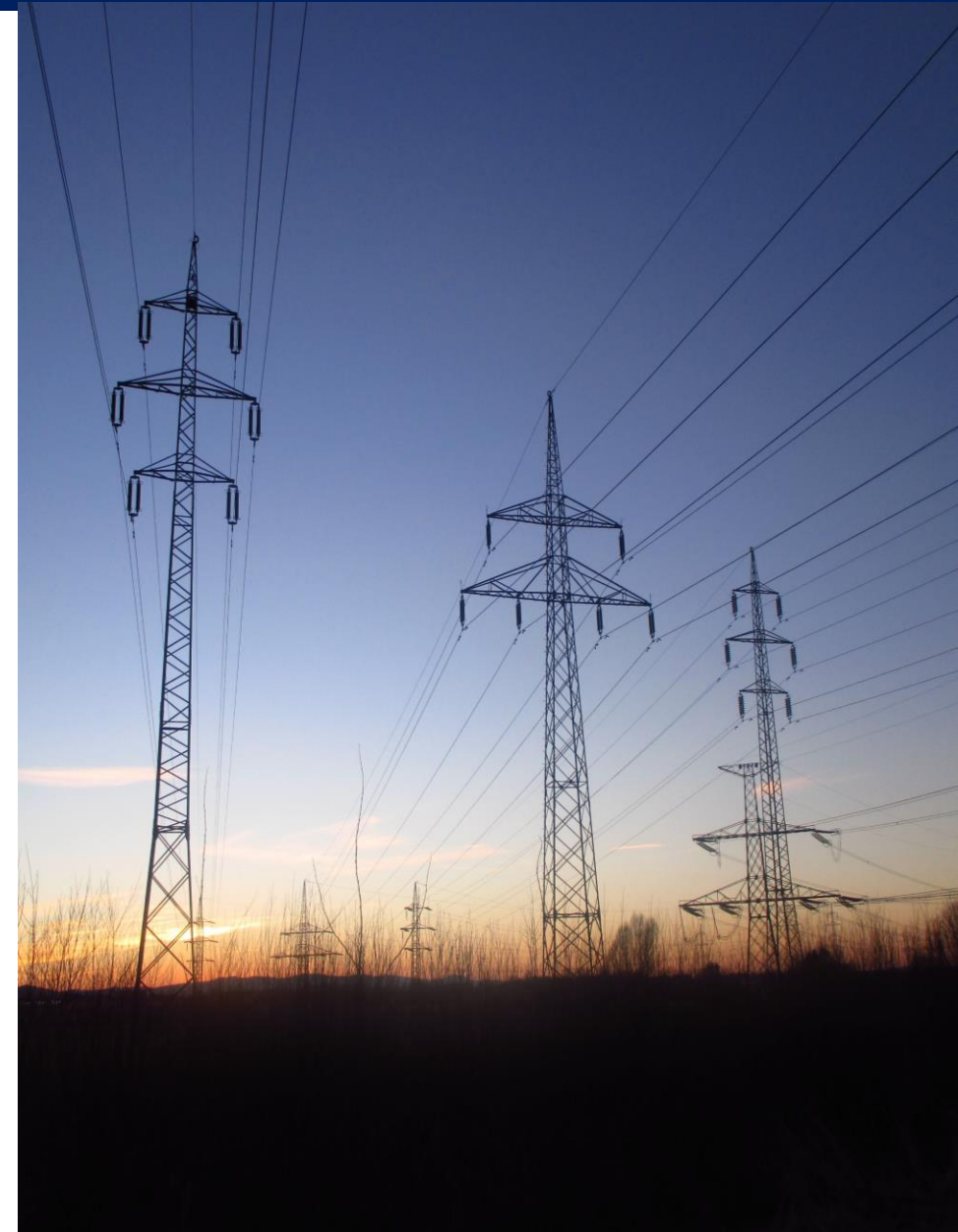
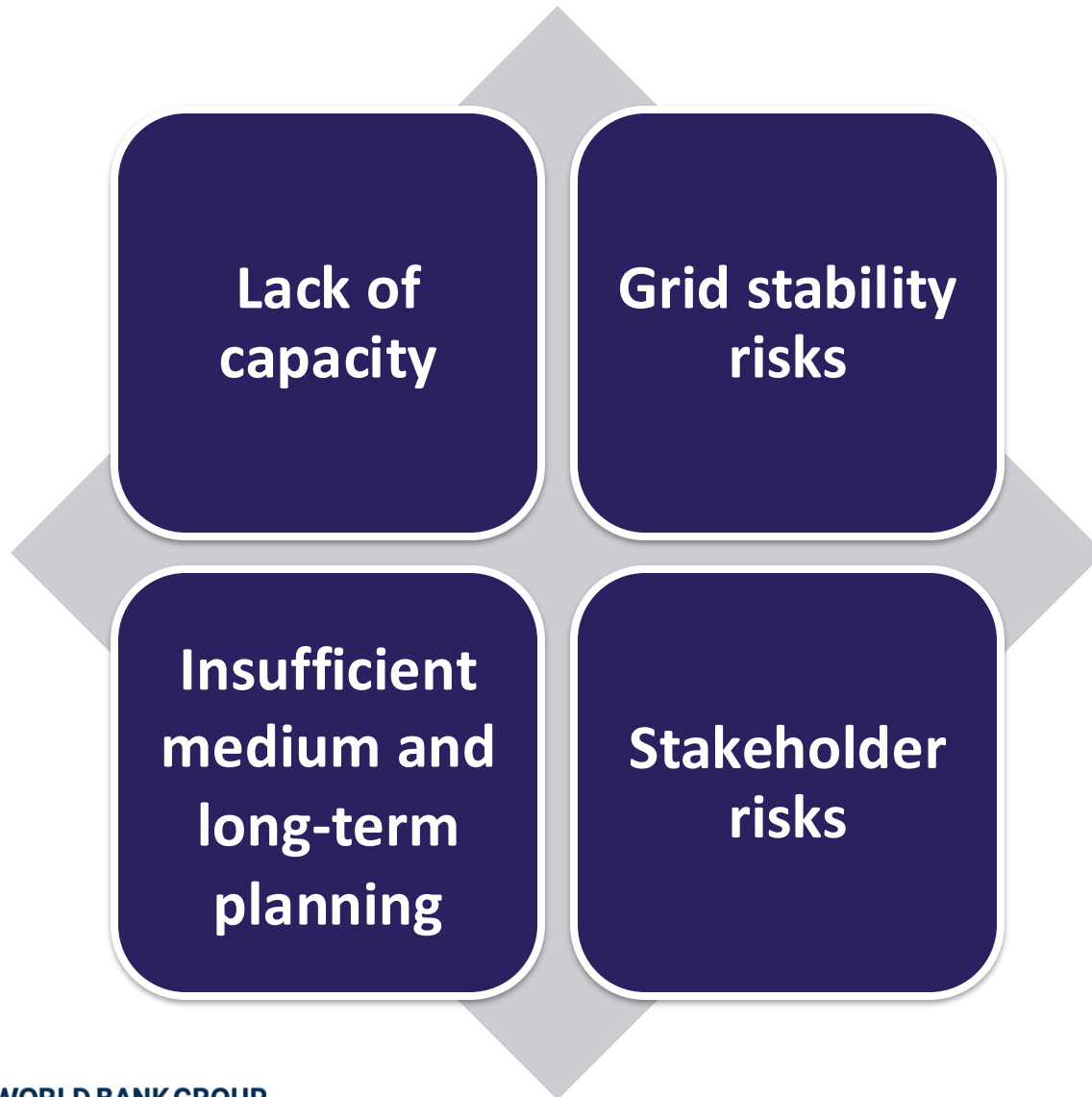
Bearing the largest impacts



Power system vulnerability



Development risks are the most critical in SIDS





Capacity is one of the main bottlenecks for financing and operational risks

Financing risks

Financial and technical capacity of local banks

Constraints to access international financing

Minimum investment thresholds

Limited fiscal space



Operational risks

Offtaker liquidity and bankability

Construction risks due to lack of qualified workforce

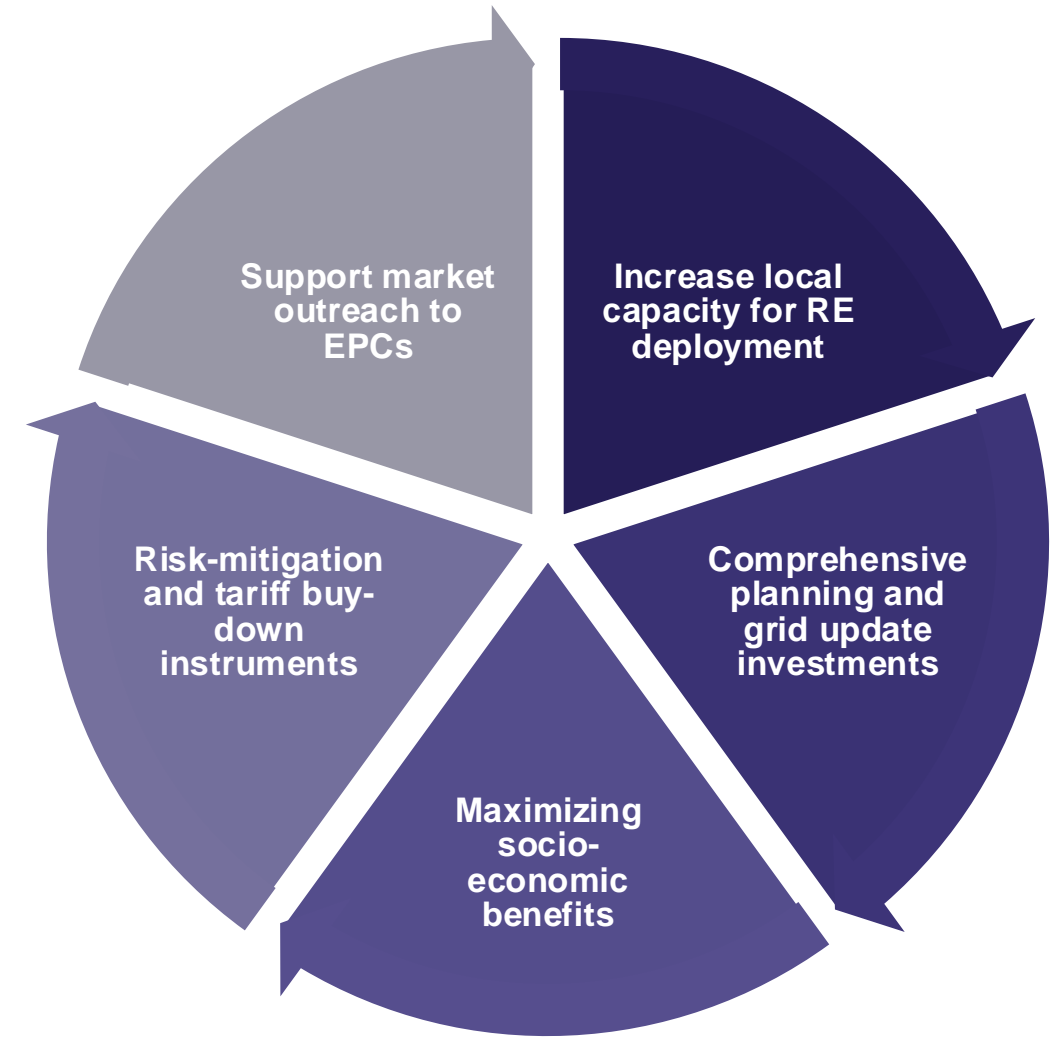
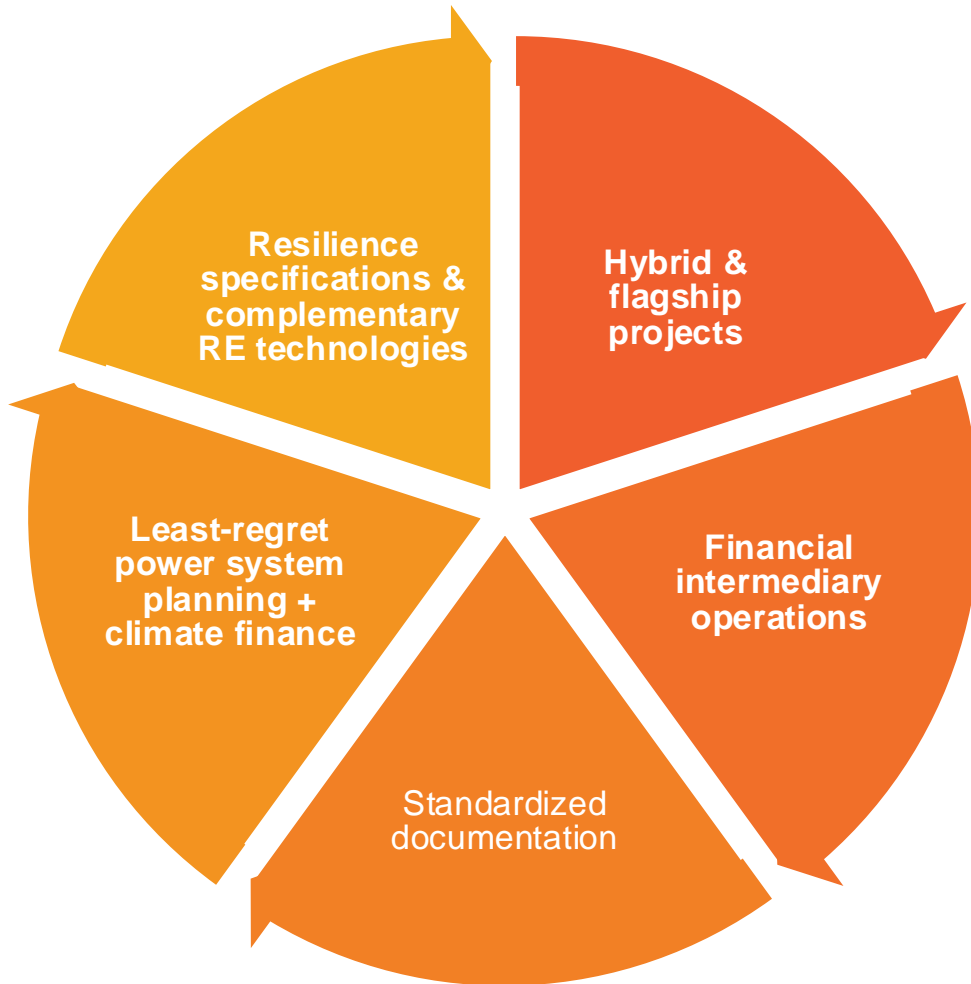
Inadequate infrastructure

EPCs



Solutions to overcoming main challenges in SIDS

Targeting scale and climate change vulnerability



And development, operational and financing risks

THANK YOU

SRMI Sustainable Renewables
Risk Mitigation Initiative

