


PACIFIC POWER ASSOCIATION CONFERENCE, 1 OCTOBER 2024

Key Findings

PACIFIC PRIVATE SECTOR
DEVELOPMENT INITIATIVE
POLICY BRIEF



POWERING THE PACIFIC:
THE COST IMPLICATIONS
OF RENEWABLE ENERGY

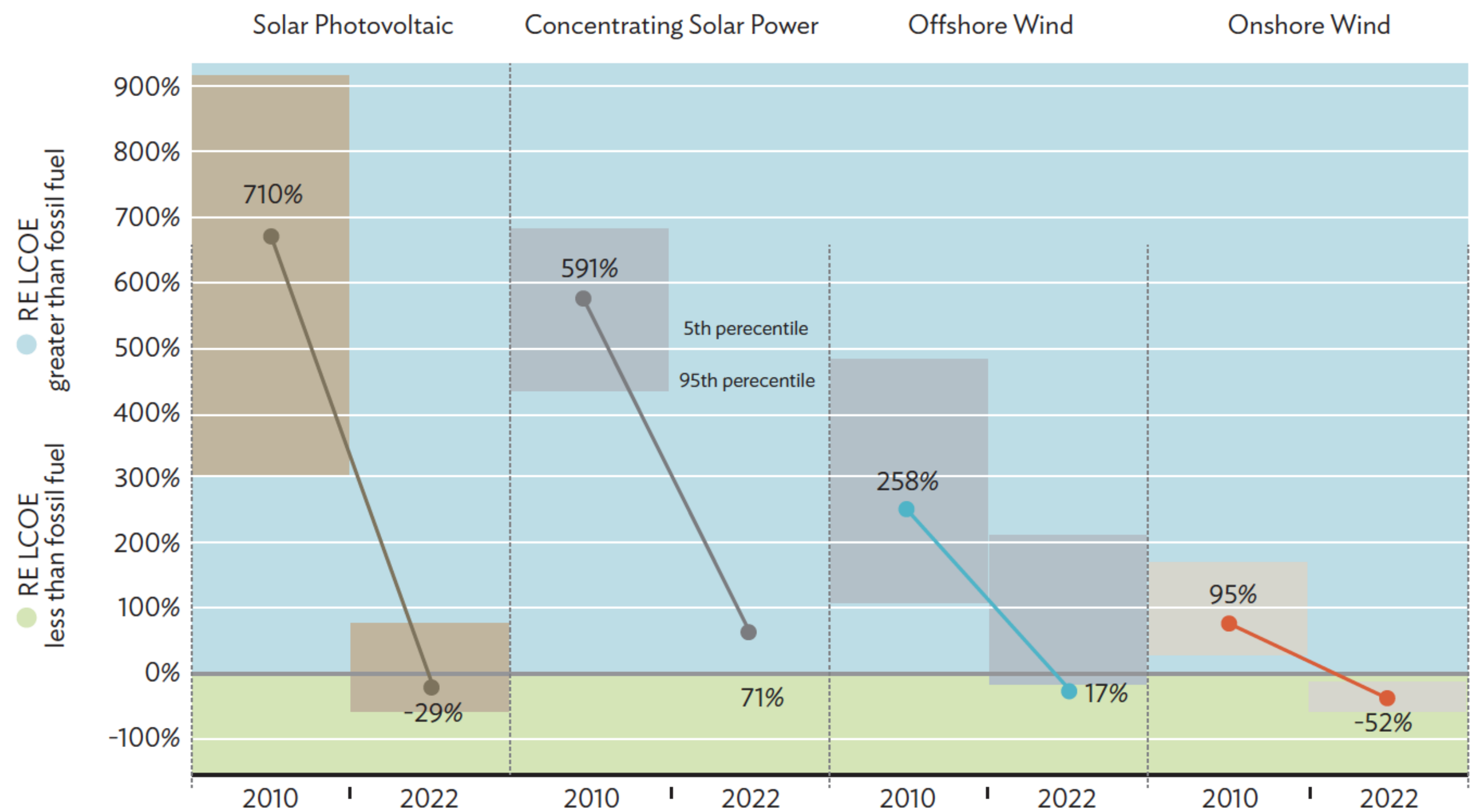
JULY 2024

PSDI | THE PACIFIC
PRIVATE SECTOR
DEVELOPMENT
INITIATIVE

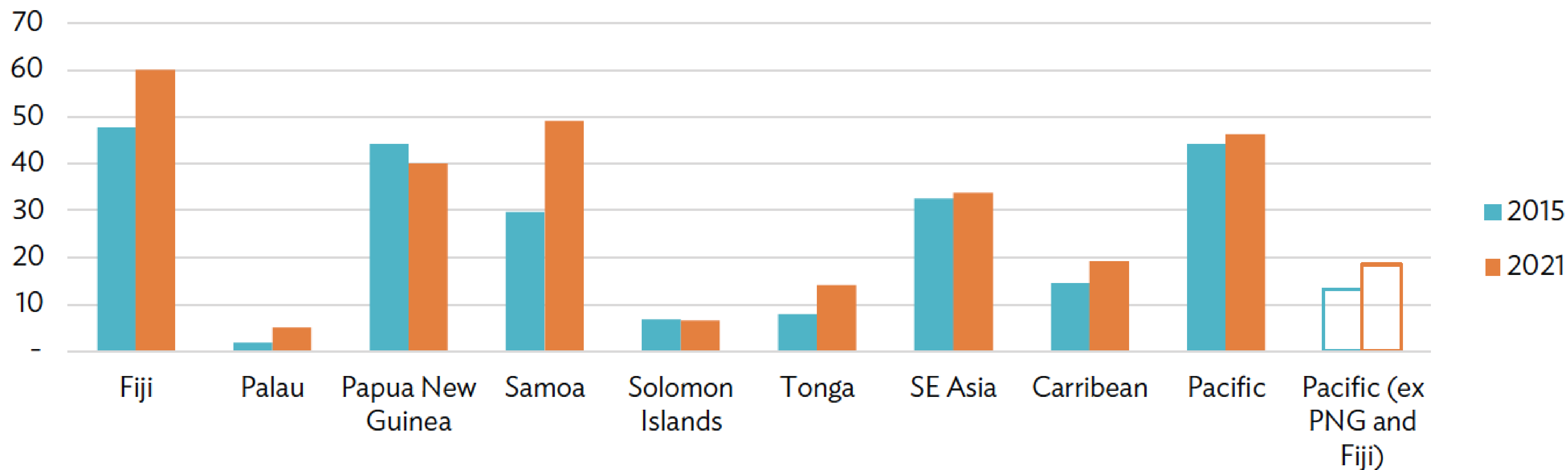
An Asian Development Bank technical assistance program
undertaken in partnership with the Government of Australia
and the Government of New Zealand.

Global RE Cost Trends and Pacific Energy Mix

Change in Competitiveness of Solar and Wind Compared to Fossil Fuel 2010–2022

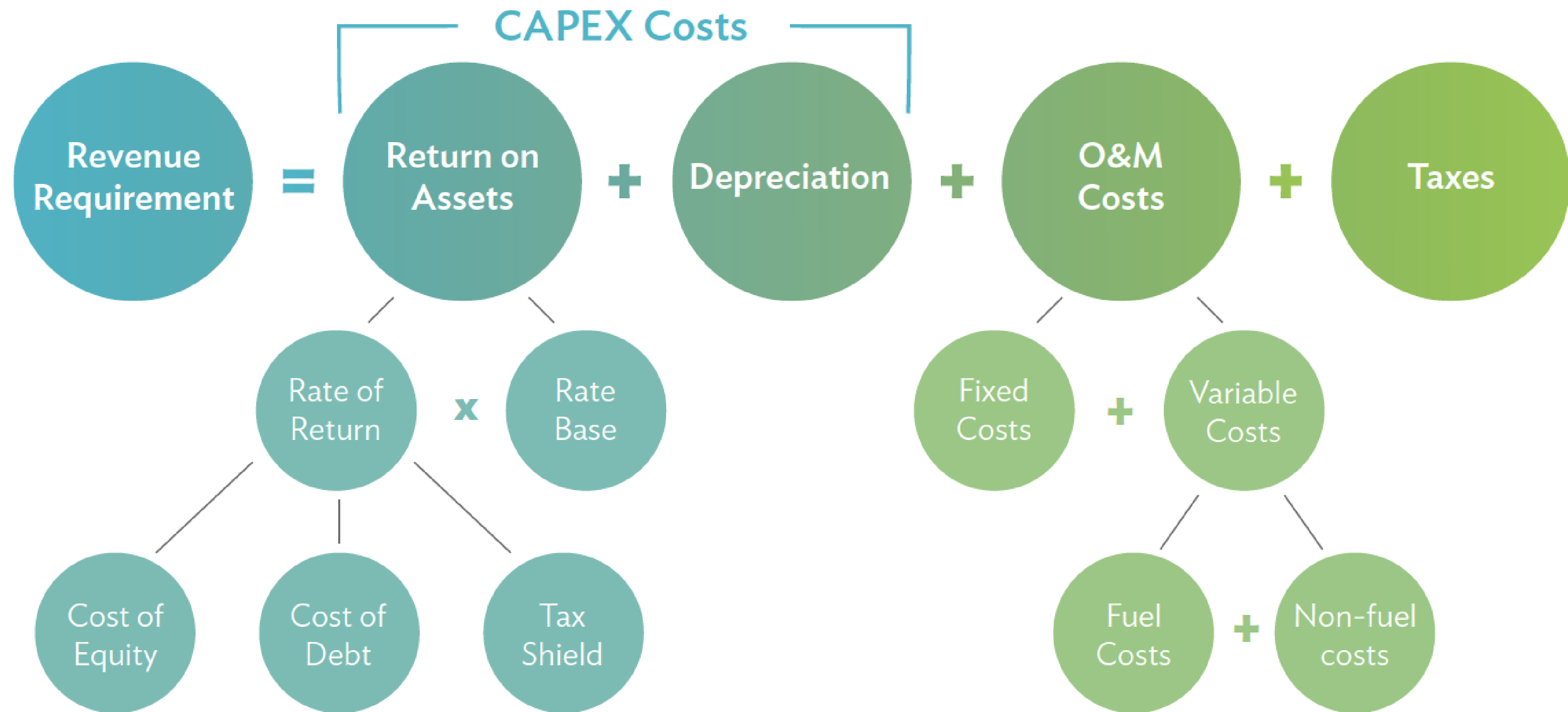


Renewable Energy Share of Electricity Generation (2015–2021) (%)

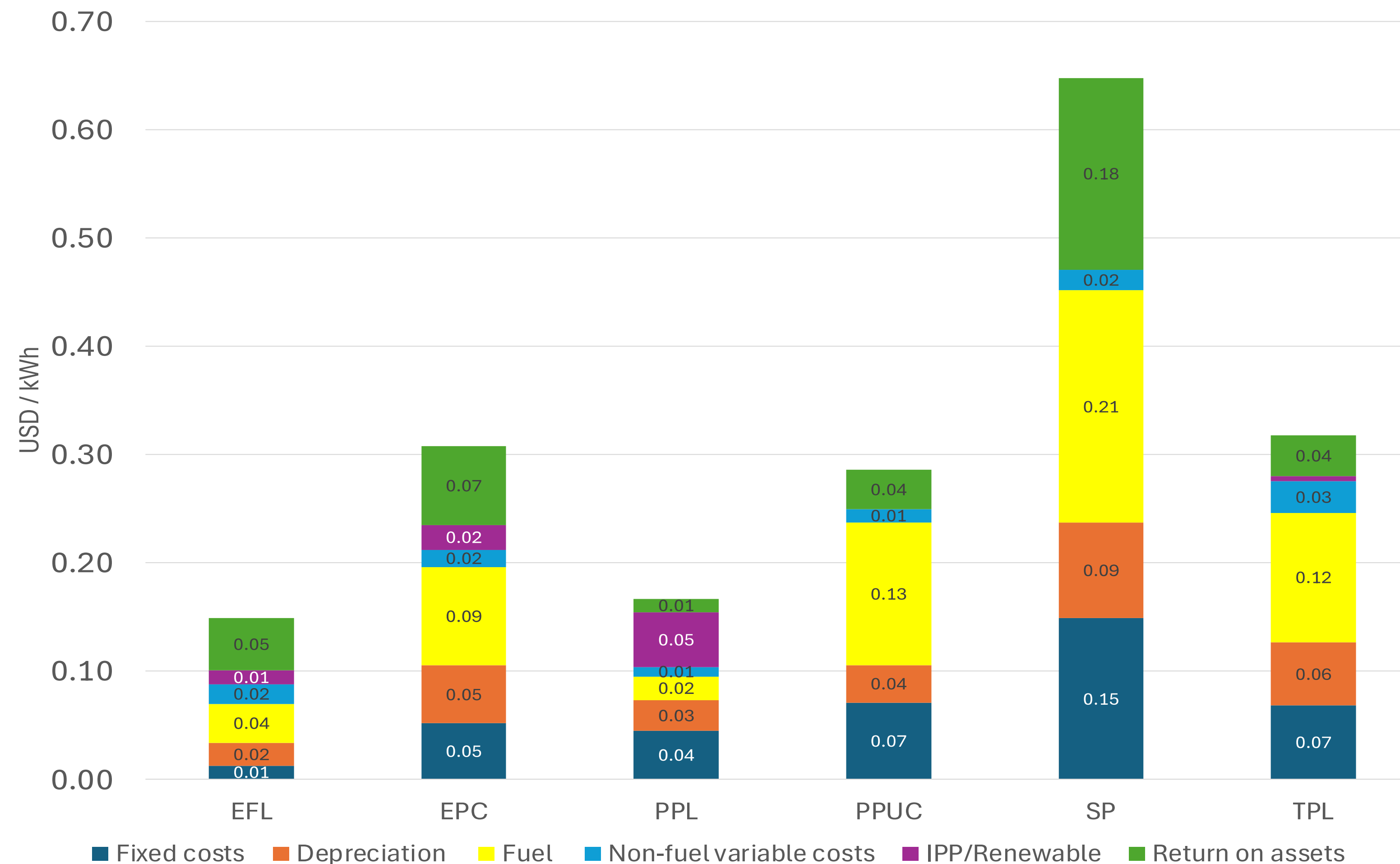


Cost Components of Electric Utilities

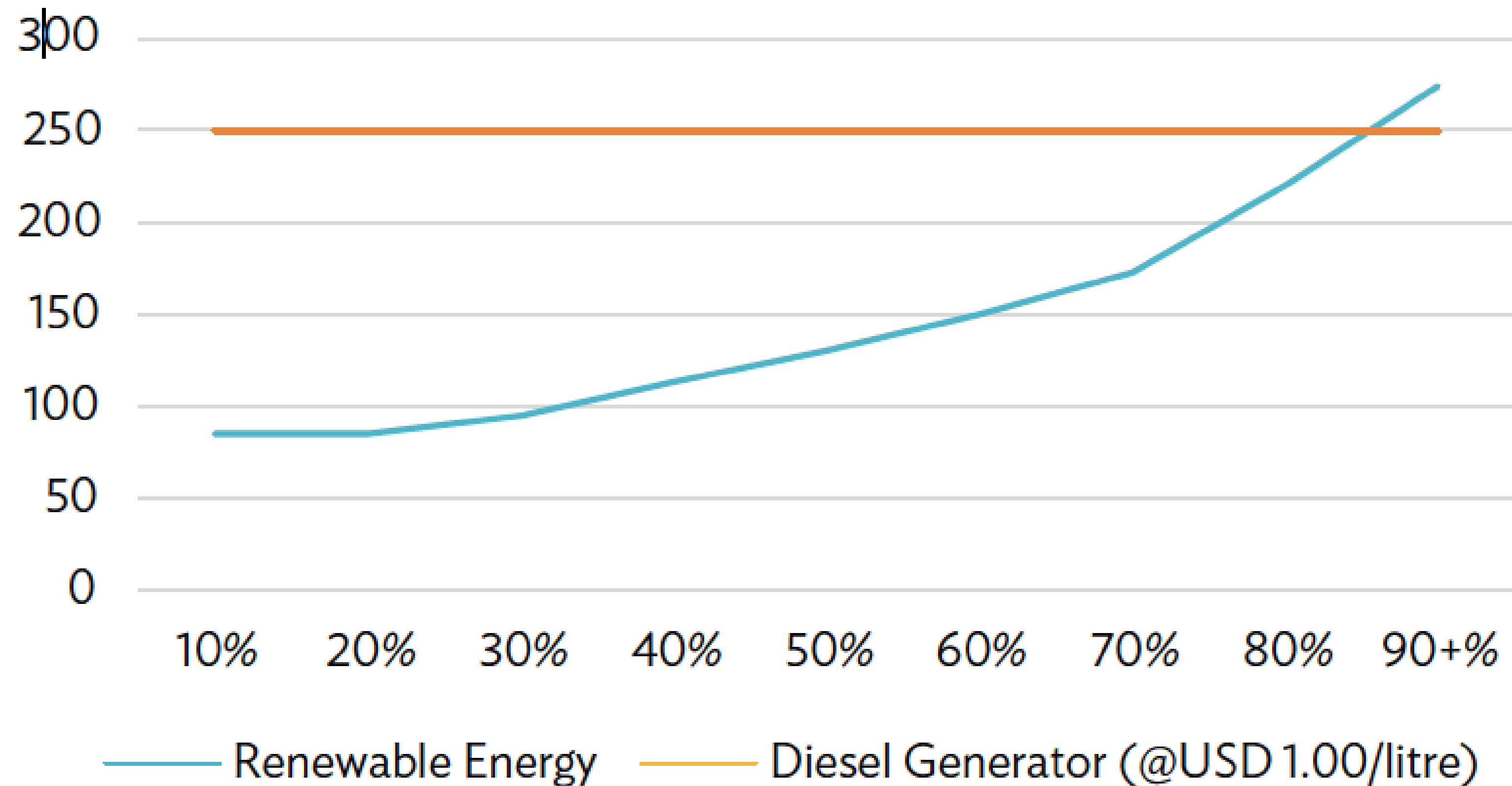
Building Blocks of Utility Costs



Utility Cost Components 2021 (\$/kWh)

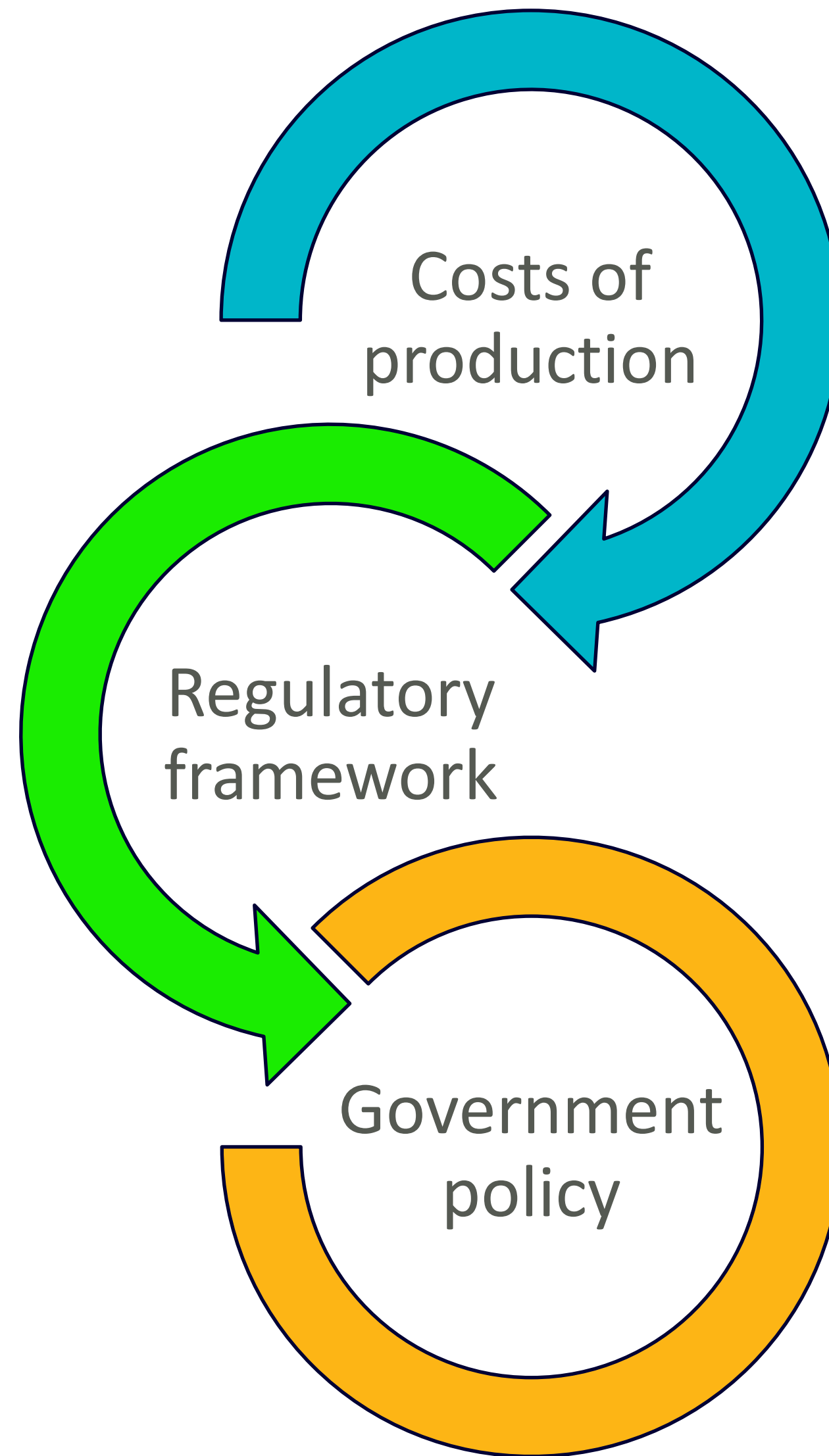


Indicative Marginal Cost of RE vs Diesel Generation for Varying Levels of RE Penetration (\$/MWh)

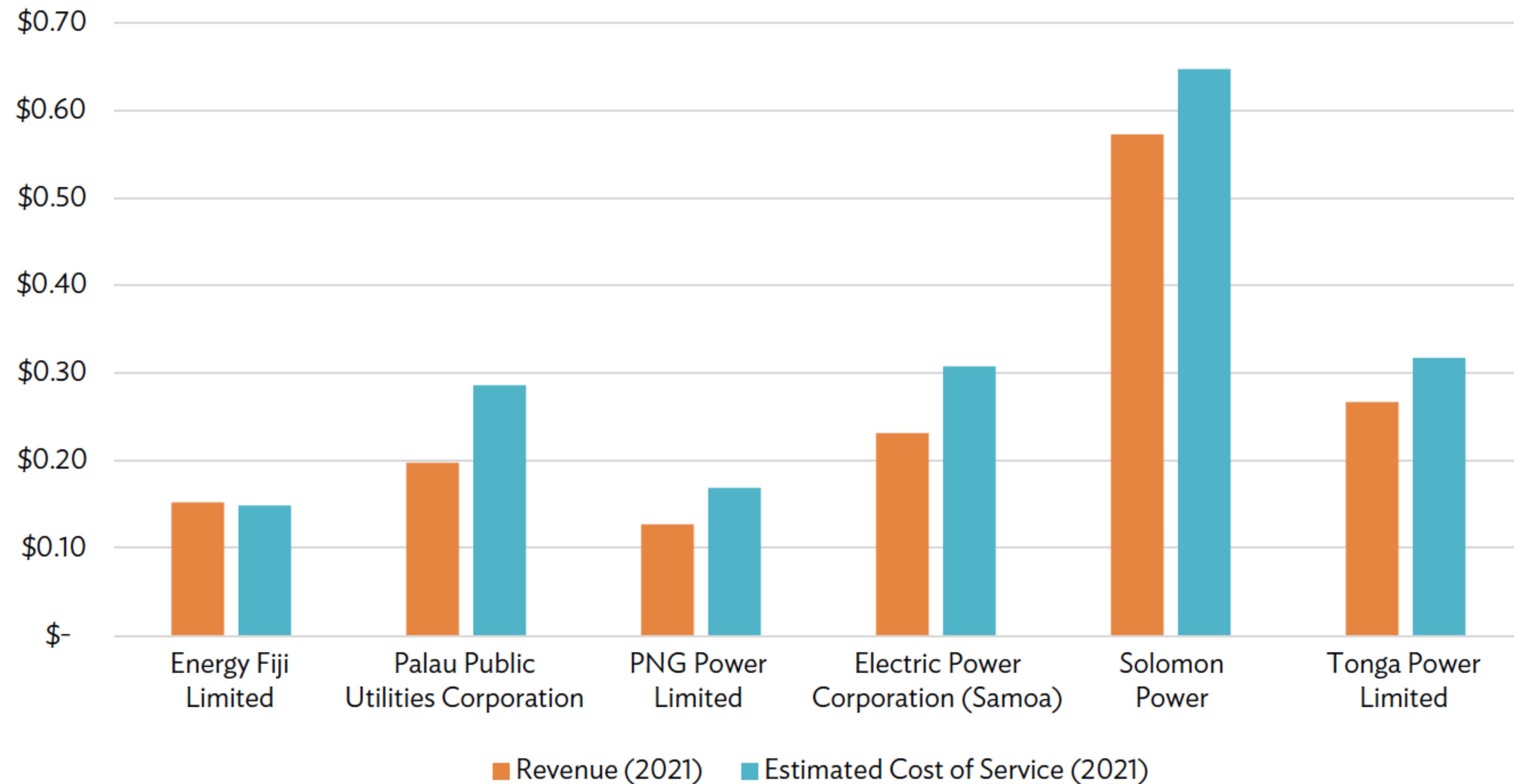


Relationship between Electricity Costs and Tariffs

What impacts end user tariffs?



2021 Utility Revenues and Costs (\$/kWh)



Factors that may undermine cost impact of RE



Reducing Electricity Costs

Factors that can reduce overall electricity service costs

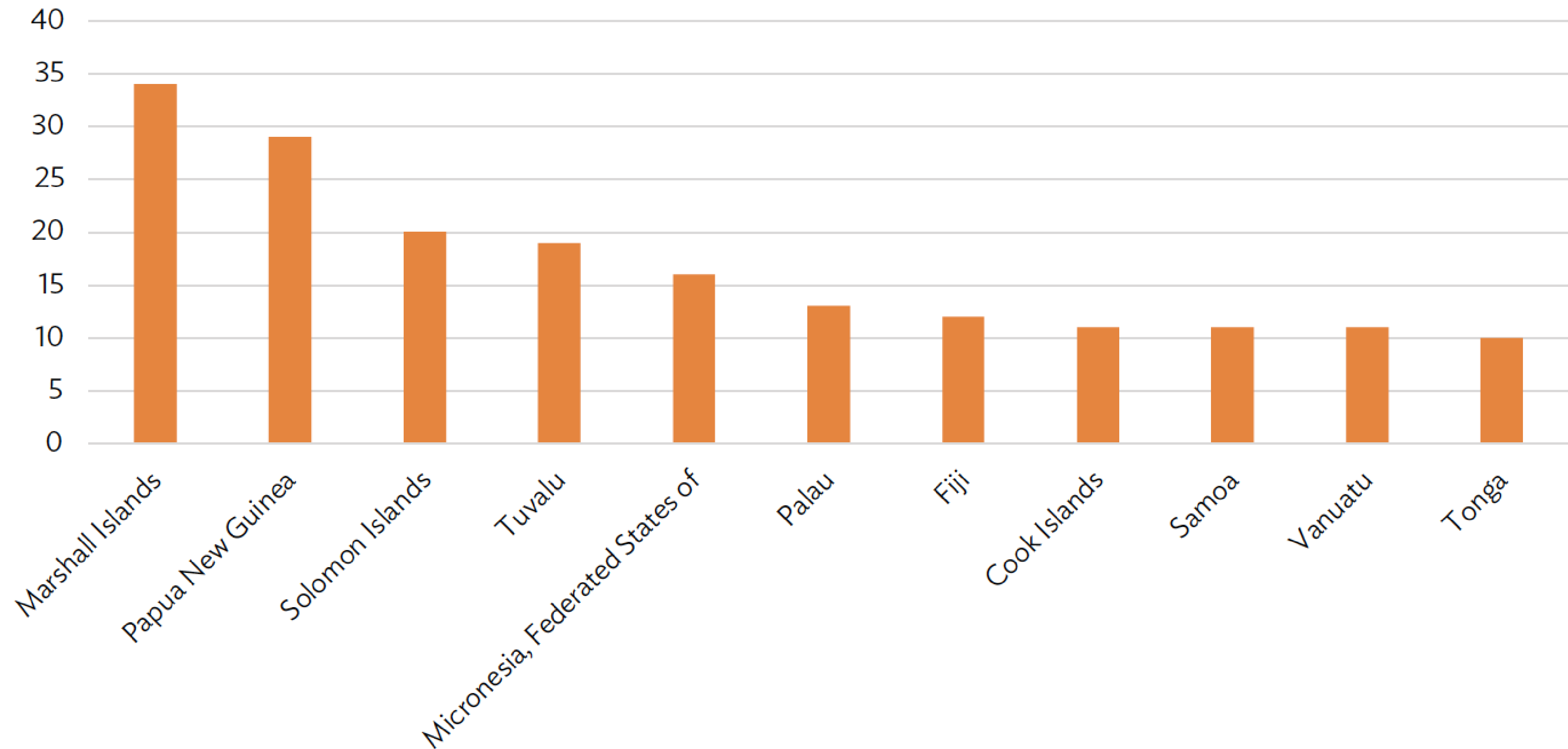
Commercialization

Regulation

Competition

Operational
Efficiency

Pacific utility system losses 2021 (%)



Conclusions

To maximize the cost savings from RE, the transition must incorporate:

sector policy,
regulation, and
shareholder oversight
that allow utilities to
operate commercially

Improved energy
transition planning

investments in system
reliability

integration of RE into a
least-cost generation
plan

Improved operational
efficiency

competition where
appropriate

robust competitive
tendering processes

PACIFIC PRIVATE SECTOR
DEVELOPMENT INITIATIVE
POLICY BRIEF



POWERING THE PACIFIC: THE COST IMPLICATIONS OF RENEWABLE ENERGY

JULY 2024

PSDI | THE PACIFIC
PRIVATE SECTOR
DEVELOPMENT
INITIATIVE

*An Asian Development Bank technical assistance program
undertaken in partnership with the Government of Australia
and the Government of New Zealand.*

www.pacificpsdi.org/publications

PSDI | THE PACIFIC
PRIVATE SECTOR
DEVELOPMENT
INITIATIVE

A technical assistance program delivered in partnership with:

