

RISK MITIGATION

- KEY TO CHEAPER RENEWABLE ENERGY -



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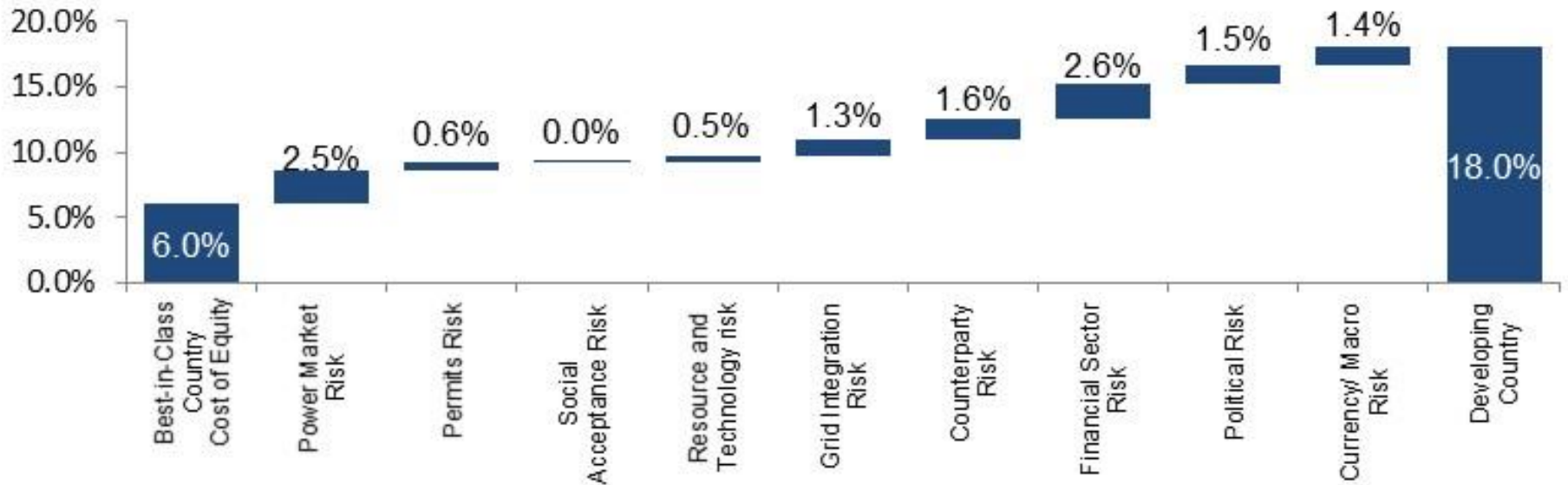
**International
Finance Corporation**

WORLD BANK GROUP

*October 10th, 2017
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Europe and Central Asia
IFC – Energy & Water Advisory*

De-risking

Cost of Equity



Prepared by UNDP for Belarus market interviewing different stakeholders

Golden Rules

Risk allocation between private producer and public off-taker

- Risk shall be taken by the party that can manage it
- If both parties can manage the risk, it shall be taken by the party who can do it cheaper

Risks transferred to private side will be

- Mitigated through higher price, or
- There will be lack of interest to apply

Private sector risks

- Project development
- Project financing
- Project construction and operation
- Technology risk

Public sector risks

- Regulatory
- Political
- Currency
- Off-take (physical and financial)

Impact on Project Cost

CAPEX

- Land (if public)
- Grid connection
- Equipment import tax
- Equity cost
- Loan cost

OPEX

- Tax
- Grid service fee
- Balancing cost
- Concession fee
- Mandatory employment

Optimal duration



Models for RES Auction/Tendering

Site(s) Tendering

Public authority responsible for site selection and pre-development

PROS:

- Remove risk to private sector linked with:
 - land conversion/lease,
 - grid connection
 - environmental/social
 - measurement
 - licensing

CONS

- Selection of not best locations
- Upfront cost for the Government

To be considered

- Correlation between different technology generation patterns and system needs (seasonal/daily)
- Interest of developers to develop project that will not be selected
- Risk of semi-developed project and wrong determination of the price
- Risk that winning bidder will face some E&S, grid connection, or other issues

National or regional quota tendering

Competition without “Bands”

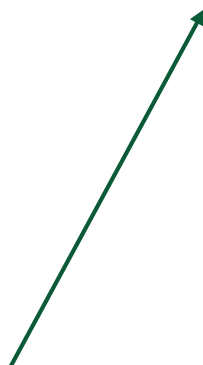
Competition with “Bands”

Specific Technology

Size of Projects

Sub-region/location

Share of Local Content



SCALING SOLAR: A WORLD BANK GROUP INTEGRATED SOLUTION

What is new about this?

1 DELIVERY SPEED & EFFICIENCY

- ✓ Templates (RFQ, RFP, PPA, GSA) support rapid & low cost tender preparation
- ✓ Balanced docs and stapled financing avoid negotiation
- ✓ Only one mandate for the entire Transaction delivery

2 OPTIMIZATION & RISK MANAGEMENT

- ✓ Site selection & development minimize uncertainty and optimize for grid
- ✓ Stapled PRI and off-taker credit enhancement lower risks & so tariffs
- ✓ Benefit of global Best-Practice

3 ECONOMIES OF SCALE

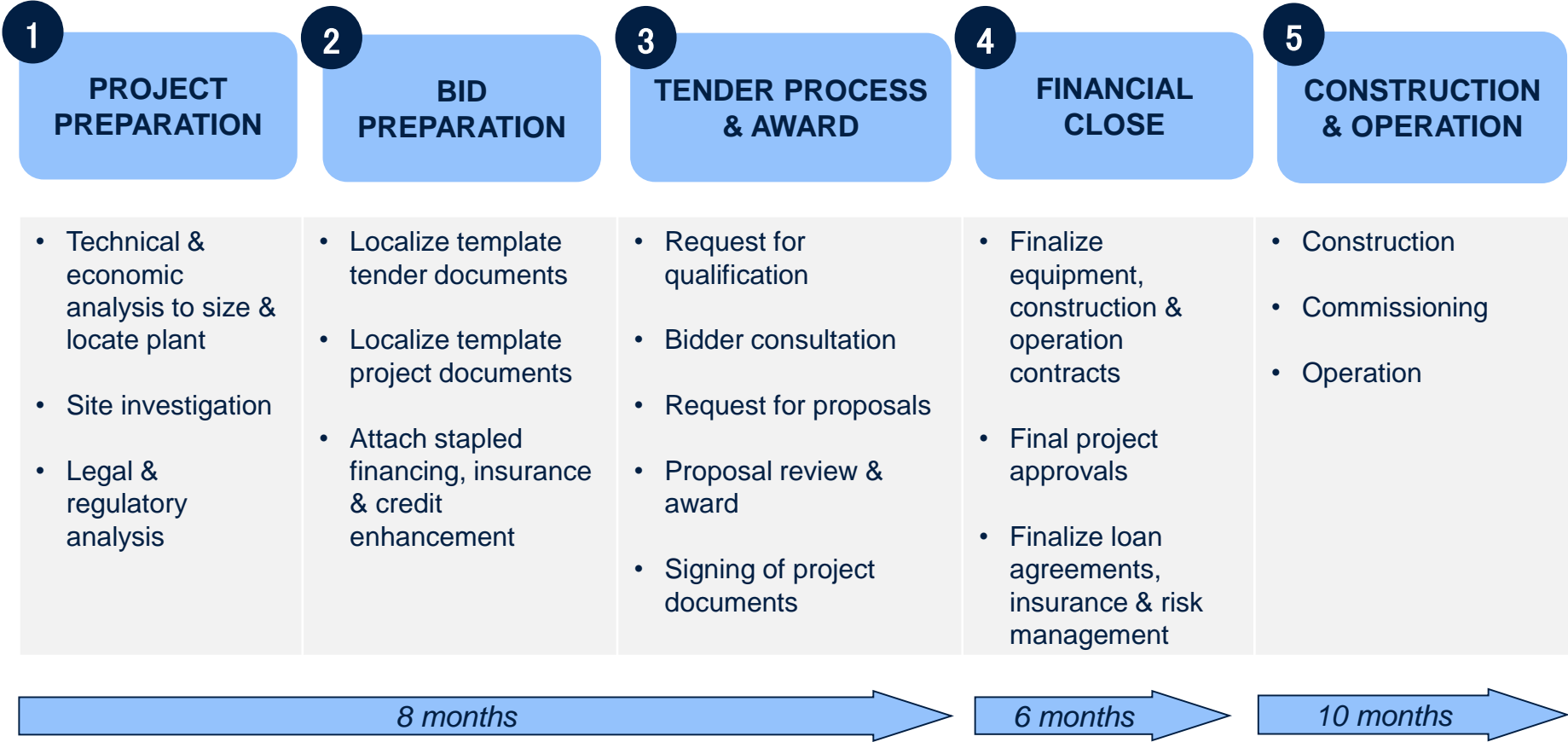
- ✓ Lower Risk perception
- ✓ Standardization across multiple countries creates large regional market
- ✓ Delivers benefits of economies of scale

⇒ A standardized approach delivers an efficient, competitive and scalable program

⇒ Implementation is coordinated, collaborative and fast

SCALING SOLAR: A WORLD BANK GROUP INTEGRATED SOLUTION

A solar IPP procurement process for emerging markets governments



Thank you !

Nebojsa Arsenijevic

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