



SAARC Training Workshop

Financial Modeling for Renewable Energy Projects



**Bangladesh: Renewable Energy, Government Initiatives,
Investment Incentives & Project Bankability**



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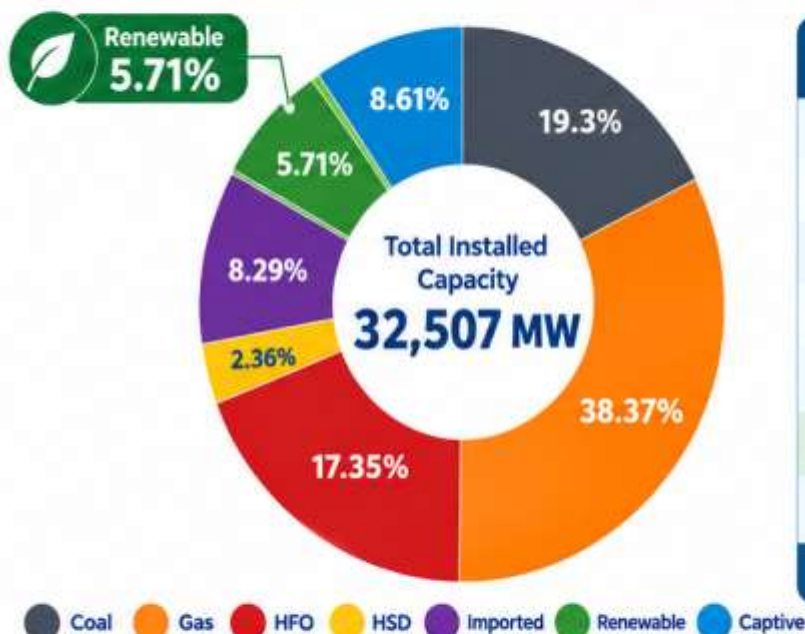




SAARC Training Workshop

Financial Modeling for Renewable Energy Projects

Electricity Generation Mix: **RE 5.71%**



Fuel/Resource	Installed Capacity (MW)	Share (%)
Coal	6,273	19.3 %
Gas	12,472	38.37 %
Heavy Fuel Oil (HFO)	5,641	17.35 %
High-Speed Diesel (HSD)	768	2.36 %
Imported	2,696	8.29 %
Renewable	1,856.71	5.71 %
Captive	2,800	8.61 %
Total	32,507	100.00 %



Renewable Energy
1,856.71 MW | 5.71%

*A cleaner, greener
and more sustainable
energy future for brighter tomorrow*



Renewable Energy

From Policy Targets to Bankable Investments

Emerging Public-Sector Implementation Model

Bangladesh is moving from renewable-energy policy development toward large-scale implementation — anchored by rooftop solar on public-sector buildings.

KEY MESSAGE

- **OPEX-led approach** — Third-party Third parties finance, own and operate; public entities pay for energy.
- **CAPEX as alternative** — For organizations with own funds preferring to own the asset.

THE IMPLEMENTATION CASCADE

1

Government policy & funding direction

National targets, fiscal support and clear direction

2

OPEX-led deployment for public-sector institutions

No upfront cost — Government-backed implementation

3

Private-sector financing & implementation

Developers finance, build and operate rooftop systems

4

Rooftop Solar Deployment

Generation at scale across public buildings

5

Lower electricity expenditure + cleaner energy

Savings for institutions, lower-carbon power mix

CURRENT POSITION

Bangladesh Renewable Energy: Current Position

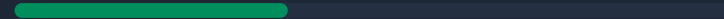
Solar is the Main Driver of Near-Term Growth

The renewable-energy portfolio spans eight technology lines:

- **Utility-scale solar**
Large ground-mounted projects feeding the grid
- **Rooftop solar**
Distributed generation on buildings, OPEX- and CAPEX-led
- **Solar irrigation**
Pumping for agriculture, replacing diesel
- **Solar home systems**
Off-grid access for rural households
- **Wind**
Early-stage onshore potential
- **Biomass / biogas**
Agricultural and organic waste resources
- **Waste-to-energy**
Urban waste as a generation source
- **Battery storage**
Emerging applications supporting solar

≈ 1.8 GW

Installed renewable capacity, per SREDA's latest published indicators



Why Solar?

- ✓ Strong electricity demand
- ✓ Significant rooftop potential
- ✓ Falling PV technology costs
- ✓ Large public, industrial & commercial rooftop base
- ✓ Government policy support
- ✓ Increasing private-sector participation
- ✓ Potential for reducing electricity expenditure

NATIONAL DIRECTION · 2026–2030

Renewable Energy Development Strategy

20%
renewable electricity by 2030

Accelerated deployment pathway

The strategy provides an accelerated, financeable pathway to scale renewable generation over the 2026–2030 period.

SUPPORTING INFRASTRUCTURE

**Grid + Storage + Financing
+ Private Investment**

STRATEGIC SHIFT

- **Programme approach:** from individual projects to a large, financeable investment programme.
- **OPEX-led rooftop:** faster deployment for public institutions, no large upfront capital.

INDICATIVE DEVELOPMENT FOCUS

5,500_{MW}

Rooftop Solar

4,500_{MW}

Ground / Utility Solar

200_{MW}

Waste-to-Energy

150_{MW}

Wind

+ Other renewable technologies · Grid, storage, financing and private investment scale in parallel

BANGLADESH

Policy & Regulatory Framework

Creating an Enabling Investment Environment



Policy / Instrument	Main Purpose
 Renewable Energy Policy 2025	Renewable targets & investment framework
 National Renewable Energy Development Strategy 2026–2030	Implementation roadmap
 Net Metering Guidelines 2025	Rooftop/distributed solar
 National Rooftop Solar Programme	Accelerated rooftop deployment
 Special Rooftop Solar Incentive	Additional revenue support
 Commercial Renewable Energy Policy 2025	Private/merchant/wheeled generation
 SREDA framework	RE development & facilitation
 Bangladesh Bank Green Finance	Green/refinancing finance



Key Direction

Public-sector support and coordinated implementation to accelerate clean energy investment.



Government Funding

Financial support and policy backing for clean energy projects.



OPEX Implementation

Operational support to ensure effective rollout and scale-up.



Private-Sector Participation

Encouraging private investment and partnerships for greater impact.



Public–Private Collaboration + Enabling Policies = A Sustainable Energy Future

The Power Division maintains the National Rooftop Solar Programme materials, including the 2025 Net Metering Guidelines and implementation guidance.

Recent Government Initiative #1

Solar equipment import tax reduced to 1%

KEY CHANGE

≈ 1%

total import
tax
for eligible
solar imports
effective from
September 2026

Current measure

NBR introduced a significant reduction in taxes on eligible solar equipment and components.

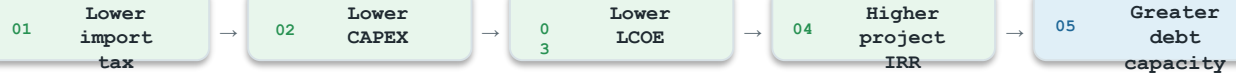
Eligible imports – subject to prescribed conditions

- Customs duty above 1%
- Regulatory duty
- Supplementary duty
- VAT
- Advance Tax
- Advance Income Tax

VALIDITY 180 days from relevant
SRO

Facility also extended to commercial importers, subject to applicable conditions.

Why it matters



Investment implication: lower import costs can improve project economics and financing capacity.

Import-Duty Reform

Why It Matters for Financial Models

Lowering trade costs.
Strengthening investment.



Before vs. Recent 2026 Measure

Earlier FY2026–27 arrangement



Key solar equipment
received duty/tax relief

17%

residual burden
could remain

Breakdown:

15% VAT

2% Advance
Income Tax



September 2026 Measure



Residual import tax reduced
to approximately

1%

for eligible equipment

This significantly
changes the project
CAPEX assumption
for imported items.



What's Changed?

Project CAPEX Assumptions for Imported Equipment



Solar modules / panels



Inverters



Batteries



Solar structures



Other qualifying renewable-energy
equipment / components



Validity



180 days from issuance of the relevant SRO.



Financial-Model Takeaway



Import-duty assumptions should always be linked to the
applicable SRO, HS code, importer category and date of import.

RECENT GOVERNMENT INITIATIVE #2

Income-Tax Benefit for Solar Generation

Incentivizing clean energy. Powering a sustainable future.



Key Government Measure

Income-tax exemption for renewable solar-energy sources (subject to conditions).

- The measure provides an important tax incentive for solar power generation projects.



FY2026–27 Budget Direction

- Proposed 0% tax rate for the solar power sector until 2035.
- 5% tax rebate for consumers on payments made against solar electricity bills.



Financial Model Impact

Project Metric	Potential Impact
Project IRR	↑ Higher
Equity IRR	↑ Higher
DSCR (Debt Service Coverage Ratio)	↑ Improved
Cash Available for Debt Service	↑ Increased



Expected Financial-Model Impact



Lower Tax Burden

(on solar power generation projects)



Higher Project Cash Flow

(for developers and investors)



Improved Debt-Service Capacity

(for project financing)



A stronger financial foundation for solar investments, enabling a cleaner, greener Bangladesh.

RECENT GOVERNMENT INITIATIVE #3

Special Tariff for Rooftop Solar

A New Revenue-Support Mechanism

Incentivizing clean energy, supporting grid stability, and accelerating rooftop solar adoption.



Special Purchase Price

Tk 10.50 / kWh



When?

September 2026 notification introduced a special incentive for qualifying rooftop solar systems supplied to the national grid.



What It Means

- The Power Division sets the price for generation (includes applicable battery costs).
- Plus an incentive/premium.



Why It Matters



Higher Revenue

Special price increases project returns.



More Predictable Cash Flow

Stable and assured revenue stream.



Improved Project Bankability

Strengthens financial case for rooftop projects.



Investment Impact



Revenue Certainty

→ Improved cash-flow forecasting.



Greater Service Capability

→ Enables stronger project delivery and grid support.



Potentially Stronger Project Financing

→ More attractive to lenders and investors.



Key Takeaway

A defined purchase price for surplus rooftop solar can improve revenue visibility and strengthen the financial case for rooftop projects.

The Rooftop Solar Investment Model

Three Possible Business Models

Flexible pathways for clean energy adoption and sustainable returns.



1

CAPEX Model

Consumer Invests



Consumer owns
the solar system

- ✓ Lower electricity purchase from the grid
- ✓ Consumer captures electricity-cost savings
- ✓ Eligible net-metering benefits may apply



Primary Value

Electricity cost savings

2

OPEX Model

Developer Invests



Developer owns
and operates the system

- ✓ Consumer purchases solar electricity under a long-term agreement
- ✓ Lower upfront investment for the consumer
- ✓ Developer earns contracted solar revenue



Primary Value

Long-term contracted revenue

3

Grid-Export/ Net-Metering

Solar Generation → Consumer Load → Surplus → Grid



- ✓ Solar power serves on-site demand first
- ✓ Surplus can be exported under applicable net-metering rules
- ✓ Exported power is settled/credited under the applicable framework



Primary Value

Energy savings + surplus export value



**Flexible Models.
Greater Impact.**



Lower
Carbon Footprint



Cost
Savings



Energy
Security



Sustainable
Growth

WHY THESE INCENTIVES IMPROVE BANKABILITY

From Government Incentives to a Stronger Financial Model

Lower costs, higher returns, and greater confidence for investors and lenders.

 Government Measure	 Financial Impact	 Project Benefit
 Import-Tax Reduction	 CAPEX	 Lower upfront investment
 Income-Tax Exemption	 Tax Burden	 Higher project cash flow
 Special Rooftop Tariff	 Revenue Visibility	 More predictable cash flow
 Net Metering	 Value of Solar Generation	 Greater project value



Core Message

Recent policy measures directly address three key investment barriers: **CAPEX, taxation, and revenue certainty** — strengthening the financial case for solar projects.

What Makes a Solar Project Bankable?

Six conditions lenders typically need to see before committing project debt

1

Bankable PPA

Clear tariff, contract term and payment mechanism.

2

Reliable Resource

Independent solar/resource assessment supporting generation assumptions.

3

Secure Land

Clear title or lease rights, with development rights secured.

4

Grid Connection

Confirmed capacity, interconnection route and connection arrangements.

5

Strong EPC / O&M

Credible Engineering, Procurement & Construction (EPC) contractors, performance guarantees and equipment warranties.

6

Payment Security

Credible offtaker plus an appropriate payment-security mechanism.

BANKABILITY PRINCIPLE Banks finance predictable cash flows – not installed megawatts.

The stronger these six foundations, the stronger the project's financing case.



From Policy to Bankable Renewable Energy

Bangladesh's Renewable Energy Strategy 2026–2030

Turning policy ambition into investable, bankable projects.



POLICY

Renewable Energy Strategy 2026–2030



- Scale up renewable energy deployment
- Strengthen enabling framework
- Advance net metering & market mechanisms

Clear targets & policy support



SOLAR PV DEPLOYMENT



- Rooftop solar programme
- Utility-scale solar projects
- Net metering framework
- CAPEX & OPEX deployment models

Practical deployment pathways



INVESTMENT

Private Capital & Financing



- Private equity & domestic capital
- Debt financing
- Green / concessional finance (as applicable)

Mobilising capital for clean energy



BANKABILITY

Strong Project Economics



- Strong project economics
- Reliable EPC / O&M
- Predictable cash flow
- Adequate DSCR

Building lender confidence



IMPACT

A Cleaner, Greener, More Resilient Bangladesh



- More renewable electricity
- Lower electricity costs
- Energy security
- Lower emissions

A sustainable energy future



Mobilise Capital



Build Bankable Projects



Accelerate Renewable Energy

The transition from renewable-energy policy to renewable-energy investment depends on bankable projects.





SAARC Perspective: From Renewable Potential to Bankable Projects

Shared learning. Stronger collaboration. A greener, more resilient South Asia.



8 Countries
1 Region
Shared Future



What SAARC Countries Can Learn from Each Other



Policy & Regulation

- Clear renewable energy targets and roadmaps
- Predictable and stable regulatory framework
- Streamlined approval and permitting processes



Reduce uncertainty.
Build investor confidence.



Business Models

- CAPEX and OPEX models
- Third-party ownership and leasing
- Power Purchase Agreements (PPA)
- Net metering and customer-focused models



Fit different markets.
Expand participation.



Financing

- Equity and commercial debt
- Green / concessional finance
- Blended finance and risk-sharing mechanisms
- Access to international climate funds



Mobilise capital.
Lower cost of finance.



Bankability

- Strong project economics
- Credible offtaker / PPA
- Reliable EPC & O&M
- Predictable cash flow
- Adequate DSCR



Lower risk.
Attract more investors.



Regional Opportunity

- Solar, rooftop PV and wind
- Energy storage and modern grids
- Cross-border cooperation and knowledge sharing
- Greater energy security and reduced fossil-fuel dependence



A cleaner, stronger
and more resilient
South Asia.



SAARC



Shared
Learning



Better Project
Structures



Greater
Investment



Faster Renewable-
Energy Deployment

*Together, SAARC can turn renewable potential into bankable projects
and a sustainable energy future.*





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8 Countries
1 Region
Shared Future



Thank You

Together for a **Greener,**
Brighter South Asia



More
Renewable Energy



Greater
Energy Security



Sustainable
Economic Growth



A Brighter
Future for All

