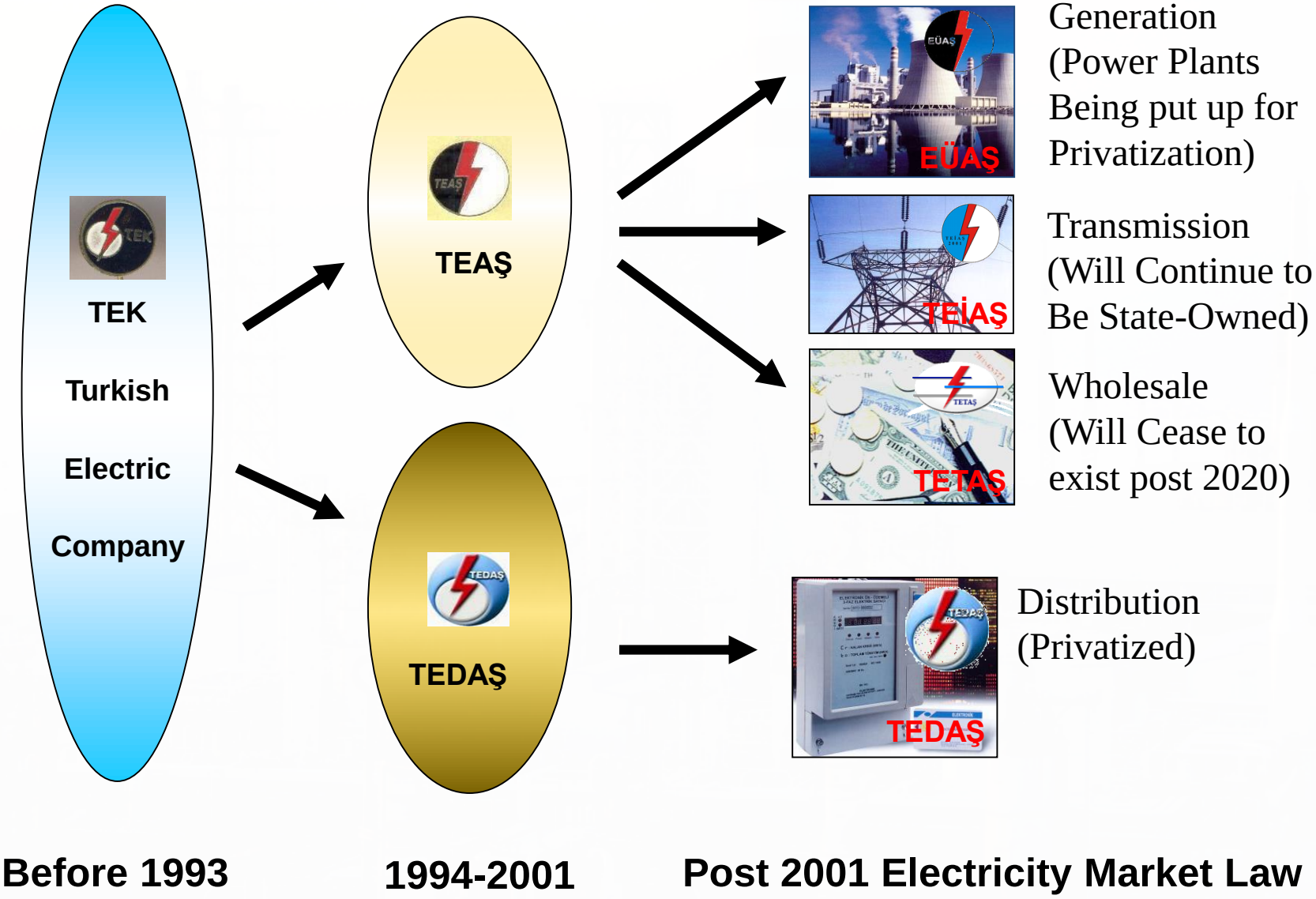
Energy Efficiency Program Turkey

ACEF 2018

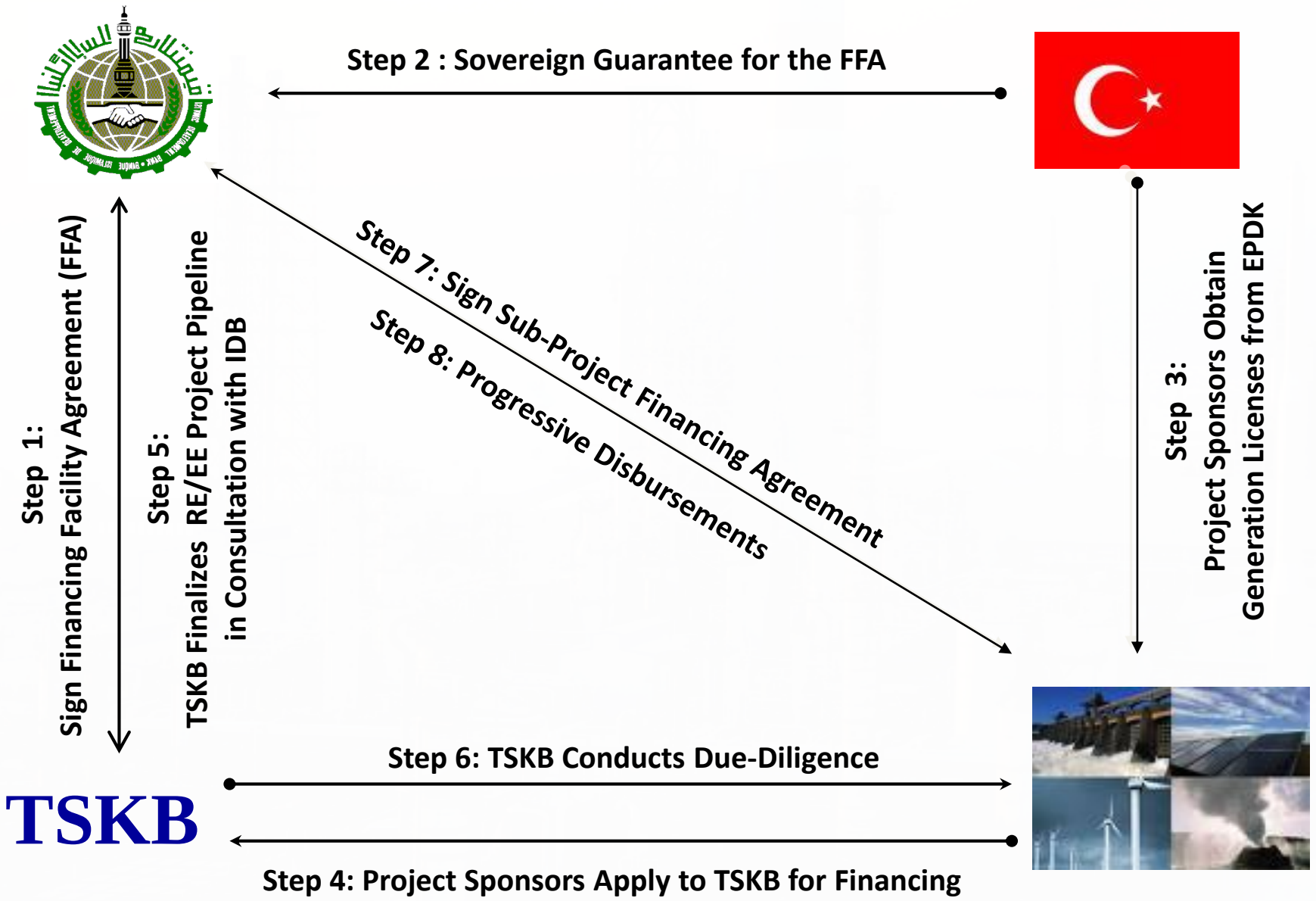
Relevance – Key Problem/Challenge

- How to improve Energy Supply Security
  - >76% import dependancy in 2016
  - Significant contribution of energy imports to Current Account Deficit
    - USD 27.1 billion in 2016 (>83%)
    - Total current account deficit: USD 32.6 billion
  - Develop Indigenous Renewable Energy Resources
  - Reduce Energy Intensity
- Emission Targets
  - 21% by 2030 under UNFCCC

Electricity Sector Background: Key State Players



Schematic of IDB Traditional Financing Facility



2010

- 22-30 March - Appraisal
- 09 May - BED Approval as LoF
- 24 June – Signing of F/A during IDB Annual Meeting
- 25 December – LoF F/A declared Effective

2011

- No utilization of funds owing to concerns related to double Taxation
- Perceived as un-implementable
- Discussions initiated for a more efficient Results oriented solution

2012

- 19 May – BED approval to change mode to Results Oriented Restricted Mudaraba Investment Facility
- 04 December – Signing of the Restricted Mudaraba Agreement

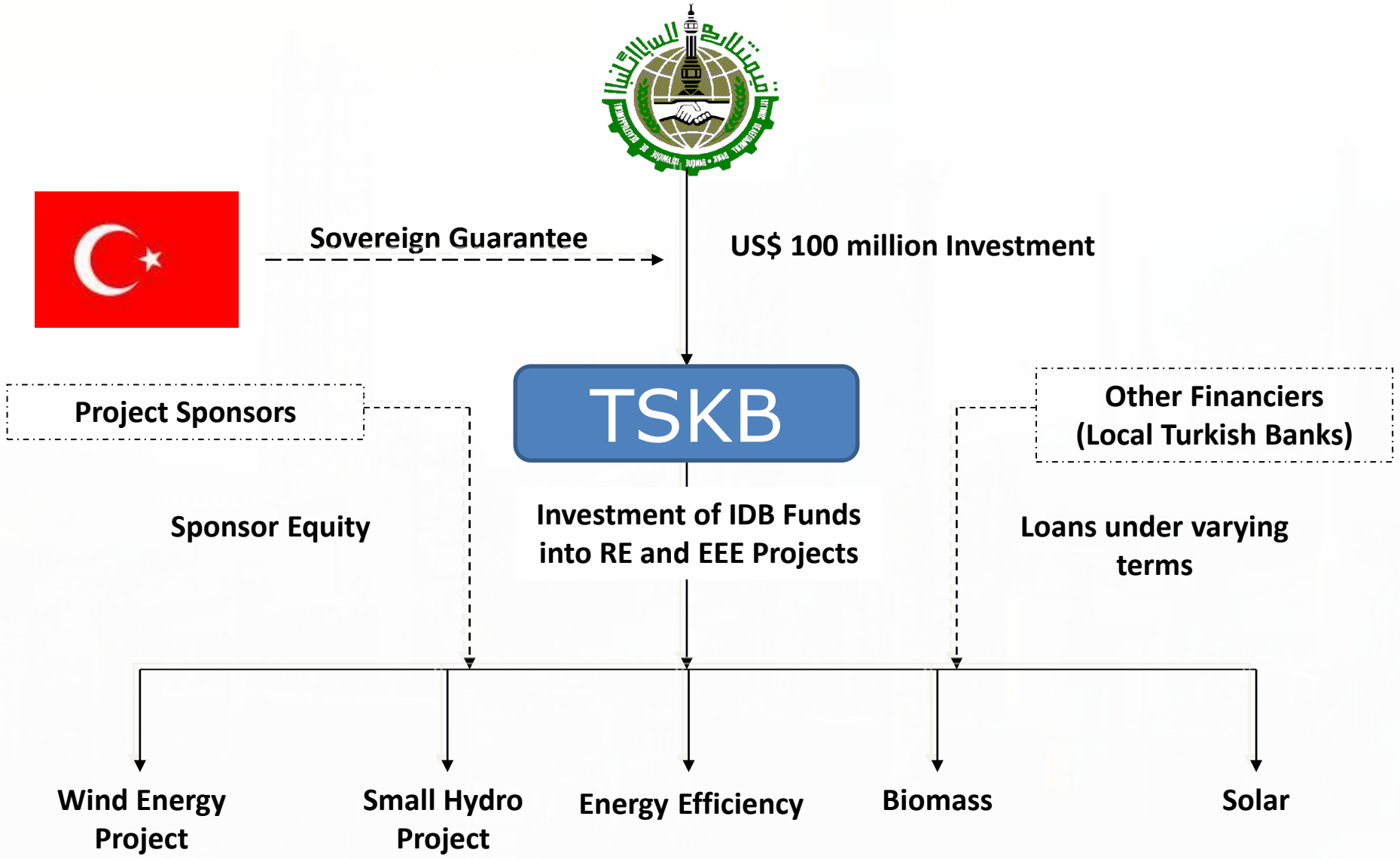
2013

- 05 January – Declaration of Effectiveness of the Restricted Mudaraba F/A
- 19 February – Disbursement of the USD 100 million

2016

- June – Last project completed
- October – Completion of PCR

Schematic of TSKB Restricted Mudaraba Investment Facility



Sub-Project Eligibility Requirements (RE & EE)

- Sound based on the economic, technical and financial evaluation
- Located within Turkey
- Comply with IDB and TSKB rules on sector eligibility, restrictions and/or exclusions
- Individually identifiable in terms of location, design and benefits
- Generate environmental benefits such as CO_2 reduction
- Involve new construction, expansion, rehabilitation or modernization activities
- Implementable within a period of 3 years

Energy Efficiency Sub-Project Eligibility Requirements

- Modernization, reconstruction and refurbishment of existing plants and facilities which lead to:
  - Energy savings of at least 20%; and/or
  - Reduction of CO_2-emissions by at least 20%; and/or
  - At least 50% of the incremental benefits from the project comes from cost savings in energy consumption.

Geographical Distribution

Renewable Energy and Energy Efficiency projects under the Program

Project Development Objectives Achieved

- Renewable Energy
  - 353.4 MW of new RE Generation added (original target: 150 MW)
    - 49.8 MW – Akdenizli HEPP
    - 122.2 MW – Goktas-I HEPP
    - 153.4 MW – Goktas-II HEPP
    - 27.5 MW – Sincik WPP
    - 500 kW – Pilot Solar PV project in Turkey

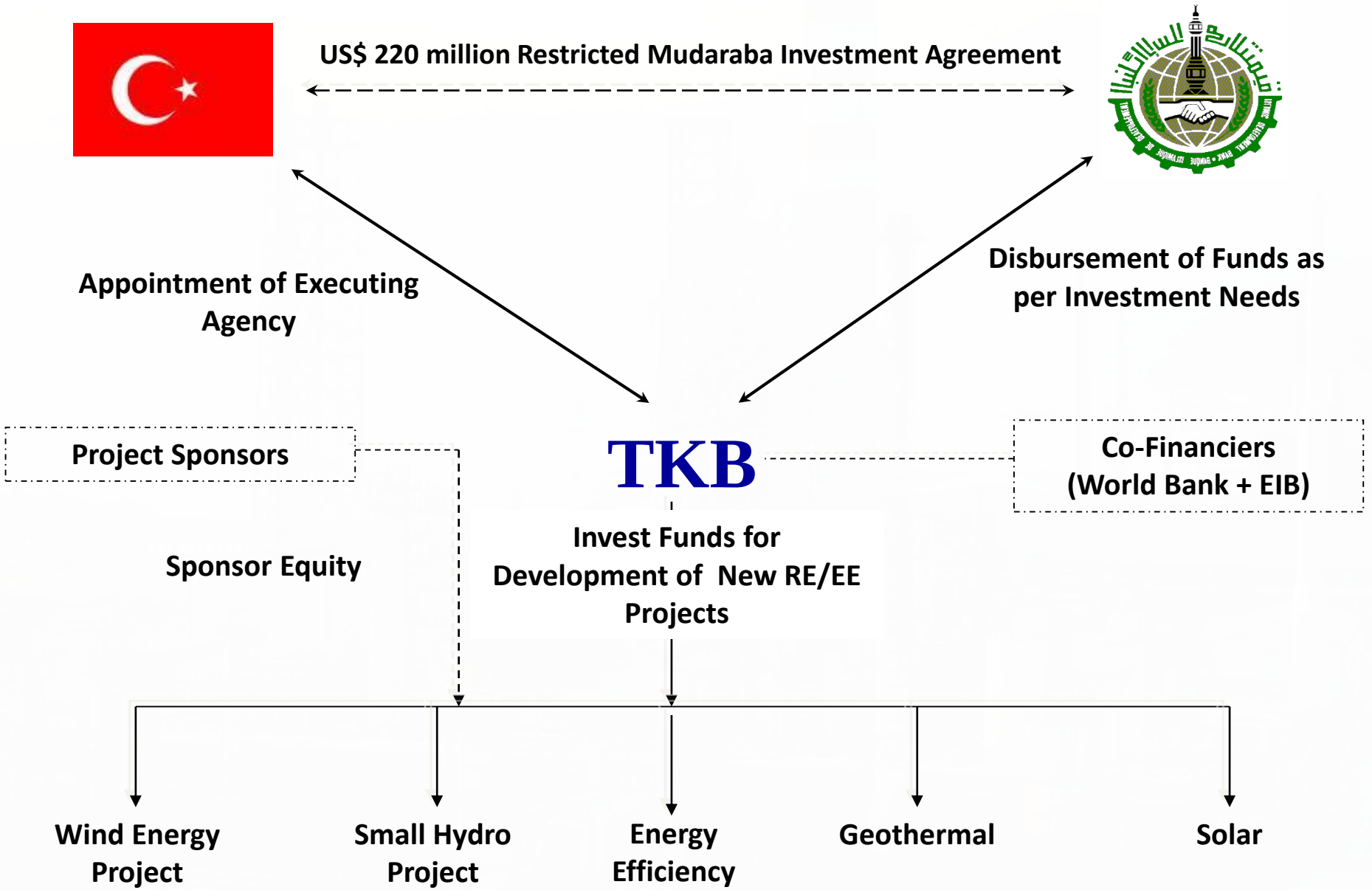
- Energy Efficiency Enhancement (EEE)
  - Six EEE projects Completed in Cement & Steel sectors
    - 20 MW – New Heat Recovery Generation
    - Plant Energy Efficiency Improved

- 1 million tons CO_2 equivalent emissions avoided aannually
  (Original target: 300,000 tons CO_2 equivalent emissions reductions)

Success Factors

- Flexibility
  - Results Oriented Approach (ROA)
    - Focus on Achievement of Project Development Objectives
- Experienced Counterpart
  - TSKB has extensive experience in RE and EEE
- Enabling Environment

Schematic of TKB Restricted Mudaraba Investment Facility



Thank You