

# UNDP experience in green funding in Kazakhstan

## 2022

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- **Lessons learned by the UNDP in Kazakhstan**
- **Future vision**

- **Massive issue of obsolete infrastructure – this is both an issue and an opportunity**
- **Low energy tariffs**
- **Lack of knowledge**

# Highlights of UNDP current projects in energy efficiency and small-scale renewable energy in Kazakhstan



## **UNDP-GEF Project “Nationally Appropriate Mitigation Actions for Low-Carbon Urban Development” (aka “Sustainable Cities for Low Carbon Development”) 2015 – 2023**

- Assistance to municipalities in creation low-carbon urban development plans
- Development of schemes and solutions for energy efficiency projects (PPP, ESCO, etc.)
- Testing modernization financial support mechanism for energy efficiency

## **UNDP-GEF Project “Derisking Renewable Energy Investment” (DREI) 2018 – 2022**

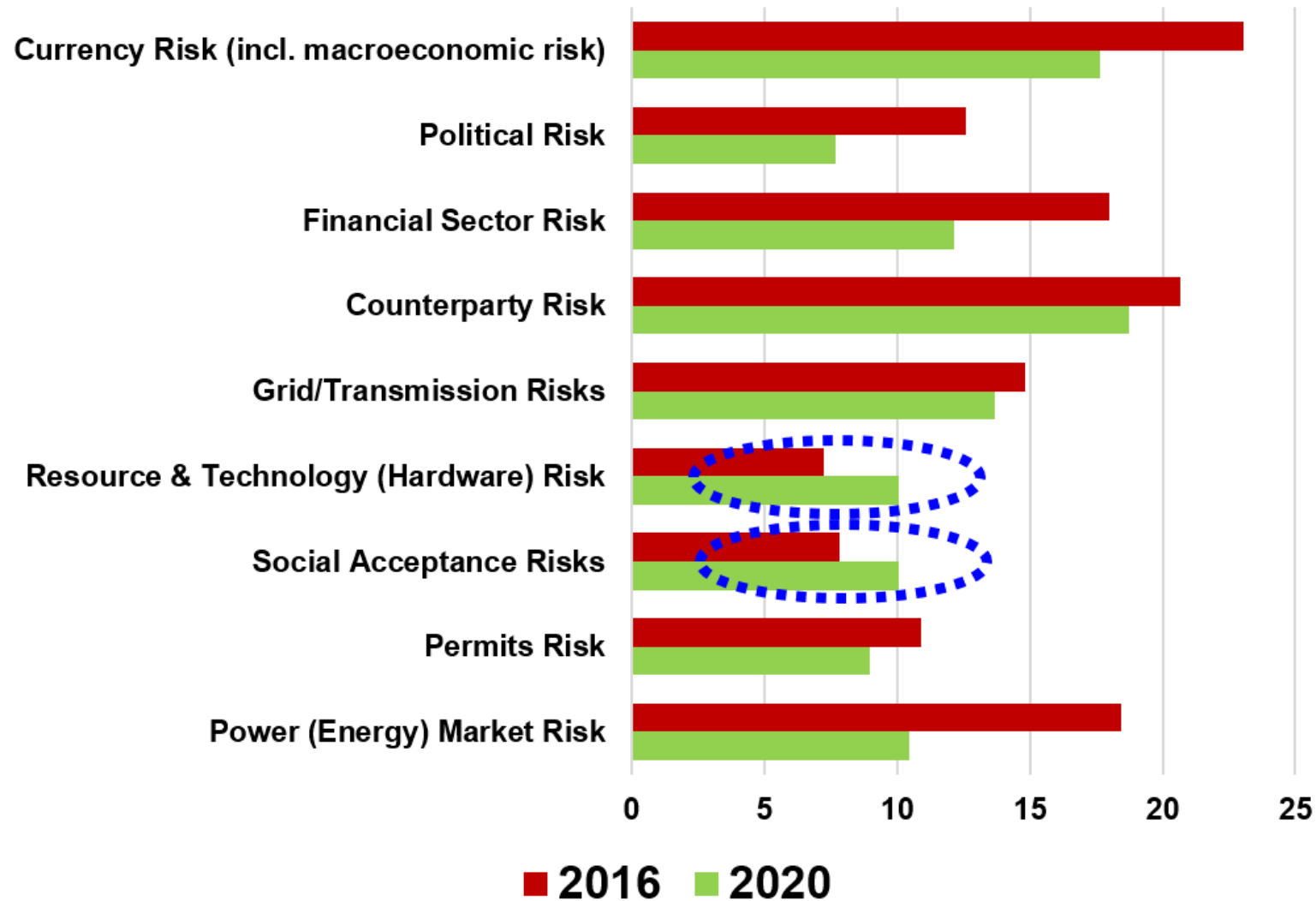
- Site-specific renewable energy auctions with documentation
- 1<sup>st</sup> green bonds issuance by DAMU Fund in Kazakhstan facilitation in 2020
- Support of policy and institutional de-risking measures for investments in renewables

## **UNDP-Kazakhstan Project "Creating Conditions for the Attraction of Investors in Energy Efficiency in Kazakhstan“ 2021 - 2026**

- Creating a new powerful guarantee scheme for energy efficiency projects: high level of coverage, scalable and self-sustainable, managed by DAMU Fund and leveraging its operational capacity
- Attempt to scale up the scheme by attracting donors - IFIs

Research by **Institute for the Development of Electricity and Energy Saving** (Nur-Sultan) for the UNDP-Kazakhstan Project "Creating Conditions for the Attraction of Investors in Energy Efficiency in Kazakhstan" , completed in December 2021, estimated the volume of investments required for energy efficiency modernization in a number of sectors in Kazakhstan at about **USD 2,7 billion**

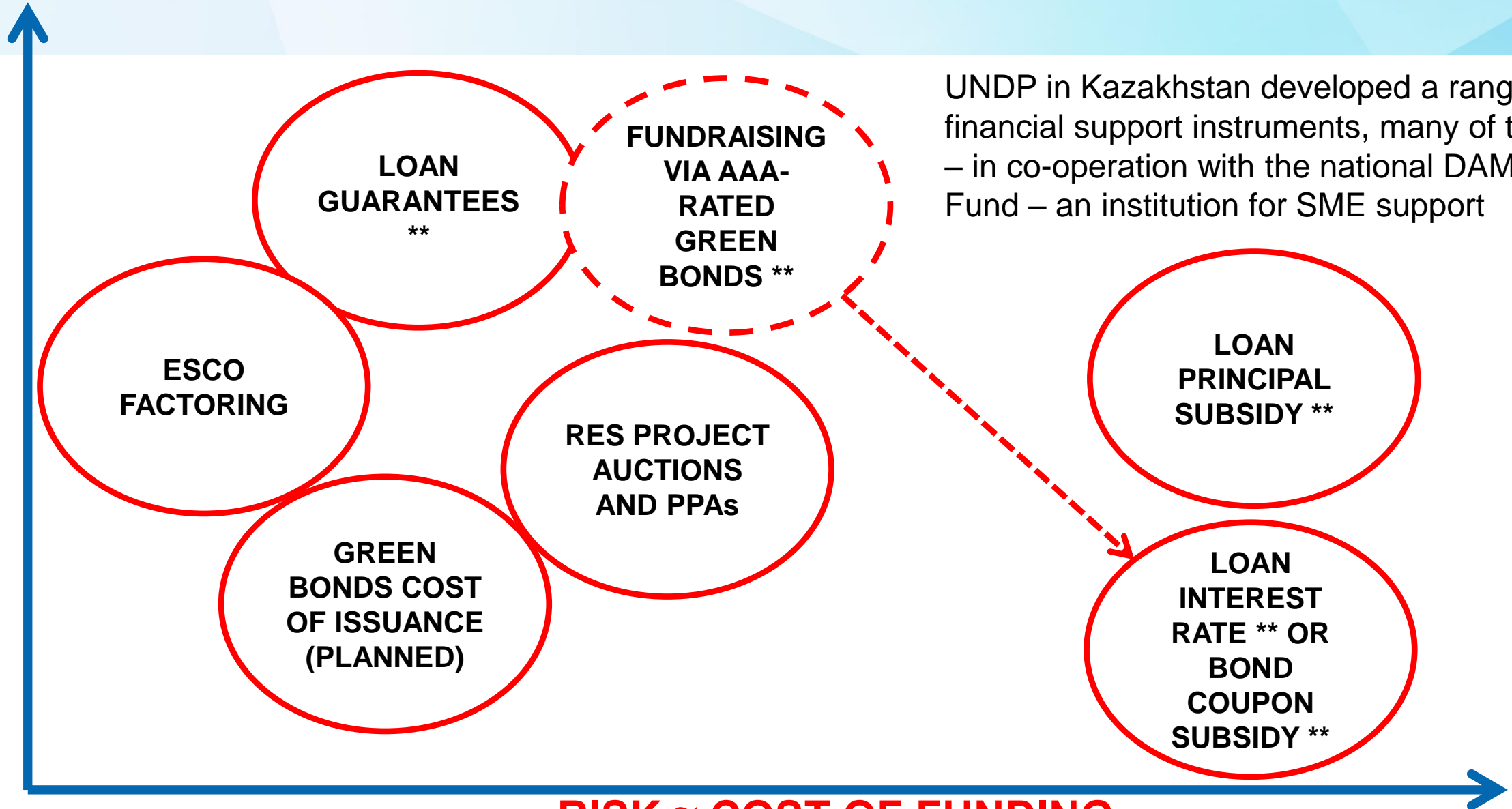
<b>Street lighting</b>	<b>52</b>
<b>Internal lighting - public buildings</b>	<b>52</b>
<b>Automated heating stations - public buildings</b>	<b>110</b>
<b>Automated heating stations - multi-apartment buildings</b>	<b>476</b>
<b>Walls insulation - multi-apartment buildings</b>	<b>1 852</b>
<b>Variable frequency drives - industry</b>	<b>115</b>
<b>TOTAL</b>	<b>2 658</b>



- Interviewing the leading experts in Kazakhstan – representatives of international companies and IFIs – in 2016 and in 2020
- 9 risks (sum of probabilities multiplied by impact, on a 5 point scale), fell from **134** to **110**
- **2 risks grew:**
  - hardware quality
  - social acceptance (a predictor of the events in January, 2022)

# TYPES OF POSITIVE IMPACT OF DIFFERENT FINANCIAL SUPPORT TOOLS: ACCESSIBILITY VS. AFFORDABILITY

**RISK -> ACCESSIBILITY OF FUNDING**



UNDP in Kazakhstan developed a range of financial support instruments, many of them – in co-operation with the national DAMU Fund – an institution for SME support

\*\* with DAMU Fund

**RISK ≈ COST OF FUNDING**

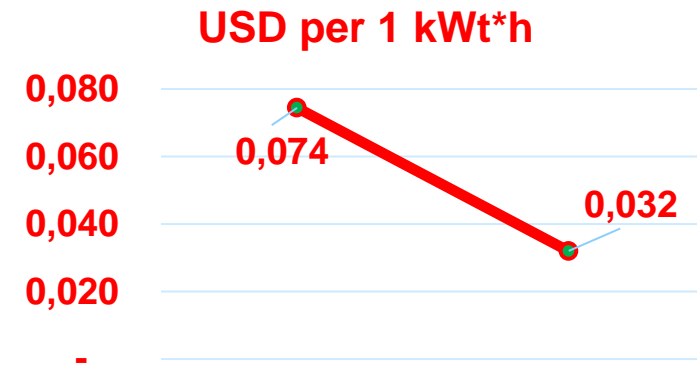
- **Site-specific auctions of renewable energy**
- **ESCO and ESCO factoring**
- **Green bonds**



# UNDP experience in establishing site-specific renewable energy auction with documentation in Kazakhstan



- 1<sup>st</sup> case of site-specific auction with documentation
- Falling price auction (to win, the bidder has to offer the lowest long-term price per 1 kWt\*h of green energy)
- November, 2019, 50 MWt solar power plant, Turkestan region
- The starting price for 1 kWt\*h was KZT 29, it fell 2.3 times to KZT 12.47 (USD 0.032 per 1 kWt\*h)



**The auctions are followed by long-term power purchasing agreements, that are significantly reducing the risks of projects and help to raise the debt part of funding**

# UNDP experience in organizational shaping of ESCOs in Kazakhstan – the history and the outlook



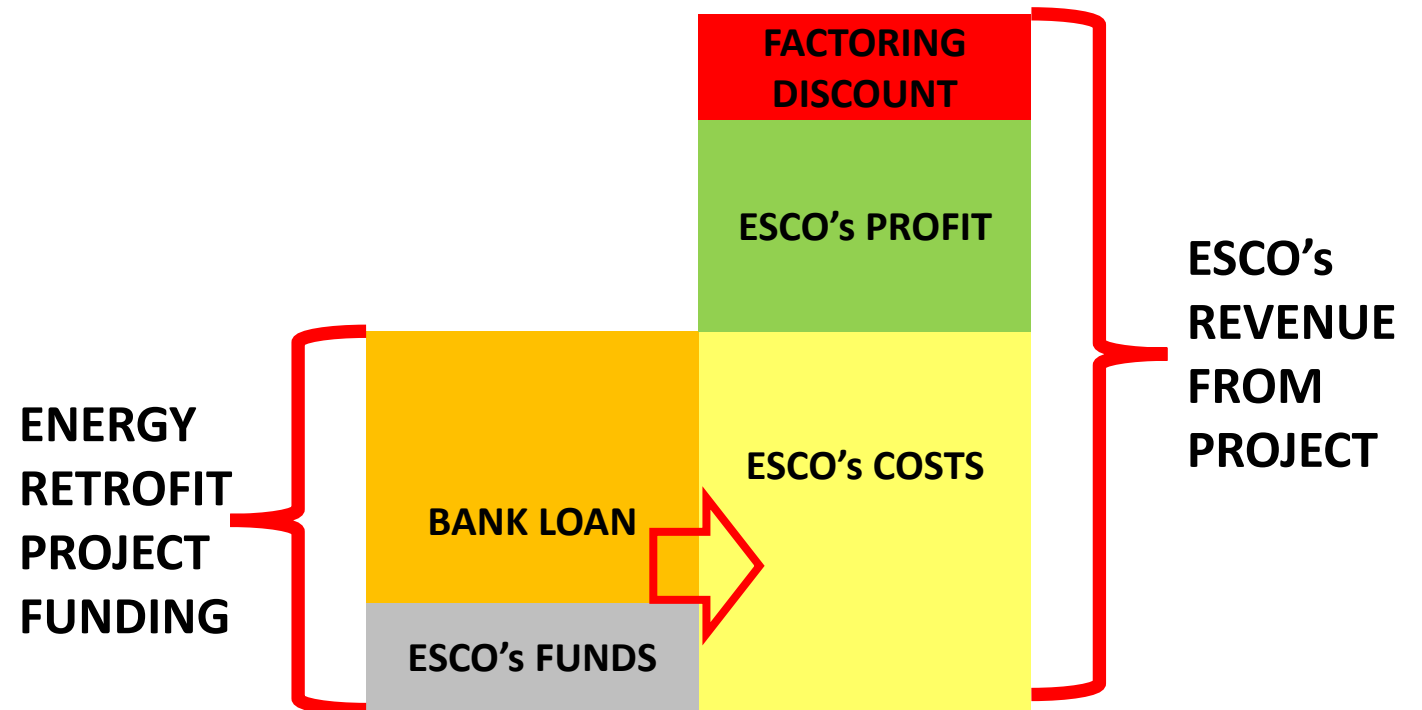
- Energy Service Companies (ESCOs) invest in the assets of their clients to make them energy efficient and are paid from the savings such modernization generates – ESCO is expected to be on of the main ways to energy efficiency on a national scale
- 1<sup>st</sup> Kazakhstani ESCOs were identified by the UNDP in 2009, ESCOs are active with the private sector and the communities of home owners, heating and lighting
- Energy Service Companies (ESCOs) are struggling in Kazakhstan: low energy tariffs are the major challenge; **it is expected ESCOs have a large potential in Kazakhstan**
- The Energy Conservation and Efficiency Law institutionalized ESCOs in 2012, with the inputs by the UNDP
- ESCOs are missing from the public procurement regulation and the Budget Code, and the public sector uses formats of PPP or trust management, or others, as in most cases the energy modernization costs are too high to cover by a down payment (PPP and TM models also developed with the UNDP-GEF projects help)
- **ESCOs invest in somebody else's assets retrofitting, they have no collaterals and they need low cost long-term funding**

# UNDP experience in testing factoring for ESCOs in the sector of multi-apartment residential buildings in Kazakhstan

- Factoring companies purchase future cash flows from ESCOs, thus providing immediate funding for new projects. The key is the profit of ESCOs has to provide for covering a discount, which is the payment for funding from factoring companies

- **No collateral is required for such funding**

- In 2020 the UNDP facilitated experimental real-life small-scale factoring deals, involving ESCOs servicing communities in multi-apartment buildings – this is the 1<sup>st</sup> case when this segment was ever involved in factoring in the CIS and Ukraine



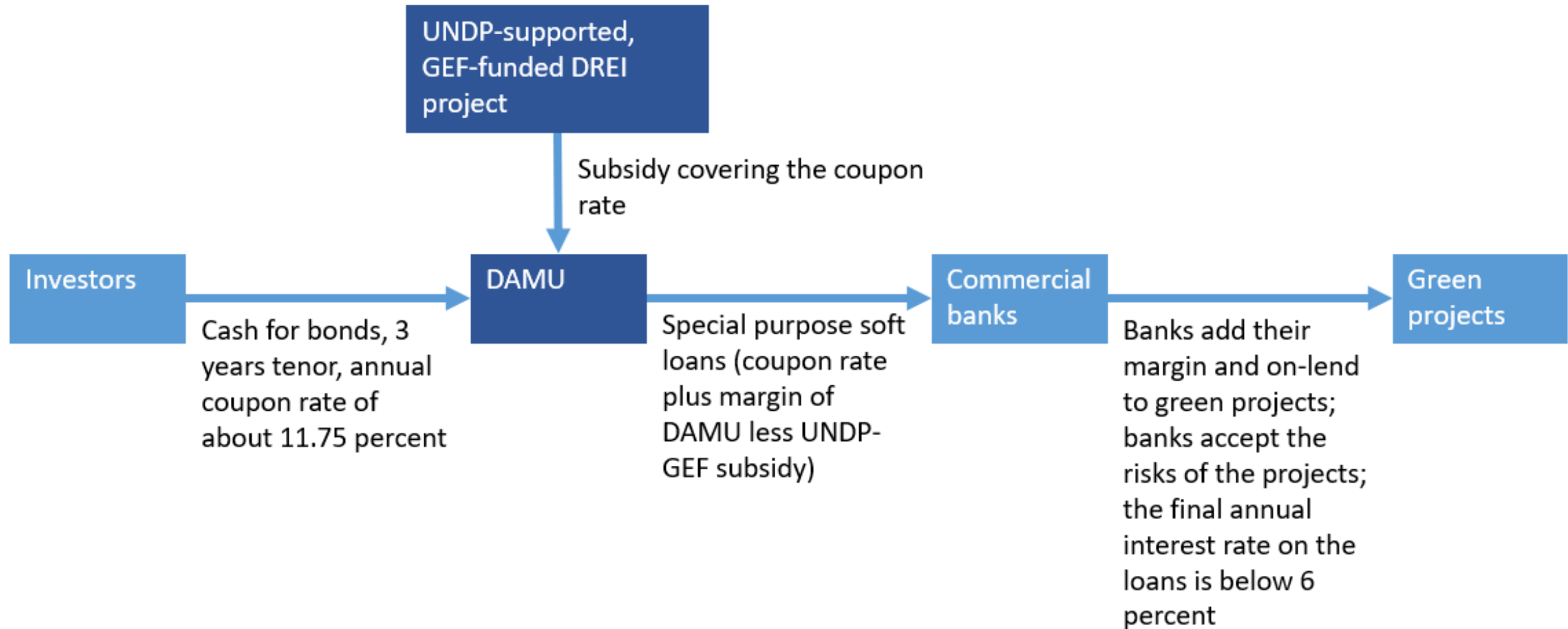
- Factoring for the sector of multi-apartment buildings in Kazakhstan is feasible under existing legislation
- Energy performance contracts have to be pre-designed to use factoring, starting from the pre-contract stage, when the residents vote to approve the project
- Factoring companies need concessional funding, otherwise the cost of funding may be too high and the volumes may be too low
- Over 300,000 multi-apartment buildings in Kazakhstan, a large-scale modernization may be supported with this funding scheme

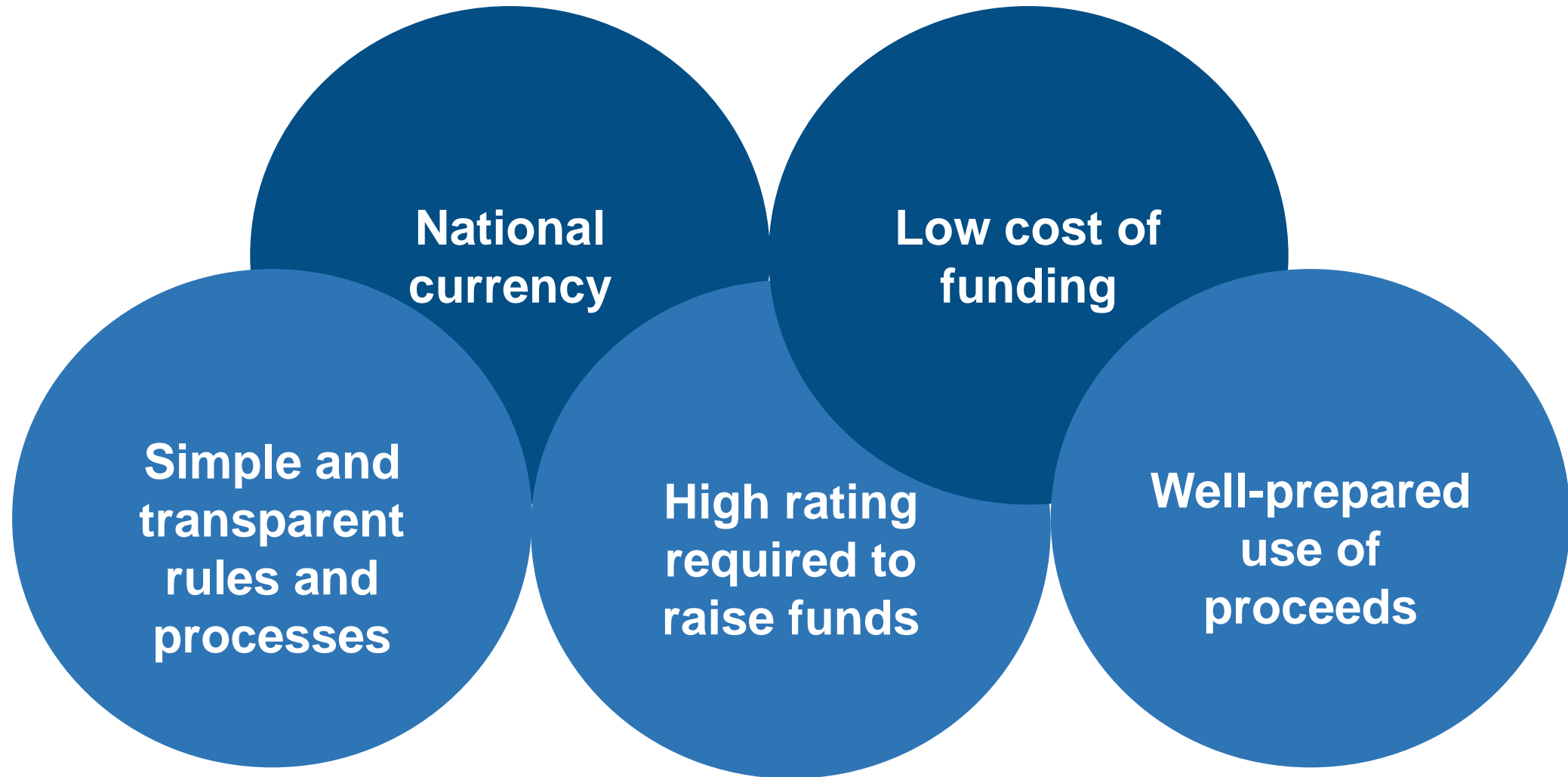
# UNDP experience in facilitating the 1<sup>st</sup> green bonds issuance by DAMU in Kazakhstan



- 1<sup>st</sup> case of green bonds in Kazakhstan – green taxonomy (green bonds policy) developed internally by DAMU with assistance from the UNDP; **DAMU's high rating was the key to success**
- UNDP-GEF DREI project covered the coupon payments
- AIFC provided most services for free for the pilot bonds
- August, 2020, national currency KZT 200 M (~\$0,5M), 11,75% p/a, 3 years tenor
- On-lending the proceeds to green projects via commercial banks, that take the lending risks (actually a solar power plant construction was funded)
- **DAMU received 6th Annual Climate Bonds Award in 2021 for the pioneering issuance of the green bonds in Kazakhstan**
- **The largest issue is finding the pipeline to allocate the issuance proceeds**

# UNDP experience in facilitating the 1<sup>st</sup> green bonds issuance by DAMU in Kazakhstan (2)





**Thank you!**

