

»»» **Caucasus Transmission Network**

**Enhancing infrastructure and
interconnectivity investments
Eastern Partnership Platform 3 on Energy Security**

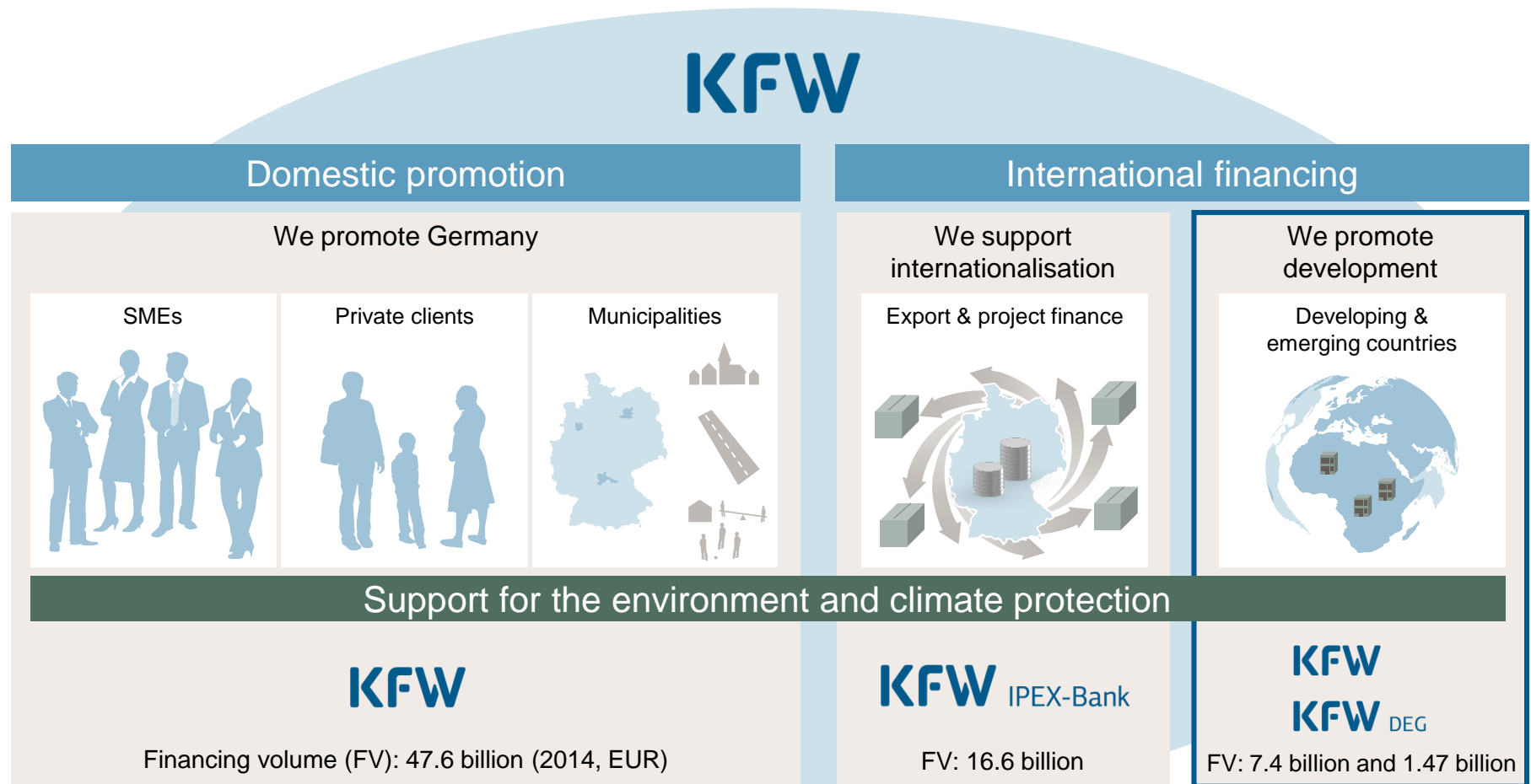
Sandra Lutz
Brussels, 18 June 2015

Bank aus Verantwortung

KFW

»» KfW – Financing with a public mission

KfW Development Bank as part of the KfW Group



»» KfW Financial Cooperation in the Energy Sector

› **Energy sector commitments 2010-2014**

- › Financial Cooperation total: EUR 8.93 bn
- › Eastern Europe/Caucasus/Central Asia:
EUR 528 m
- › Armenia: EUR 262 m



»» Caucasus Transmission Network

The Project

- › Closes a missing link for a reliable and flexible cross-border power exchange between ARM and GEO
- › Constitutes an important component for a regional power market, extends the Black Sea Transmission Network
- › Is a project planned in 3 subsequent stages of an overall investment of approx. EUR 350 m and a final capacity of 1,050 MW
- › Is a key and priority project for ARM and important for GEO also
- › Is co-financed by EIB and EU NIF



»» Caucasus Transmission Network Phase I & II

Enhancing Regional Integration

Approach

- › Financing the **connection of the Armenian and the Georgian power grid**: new construction of High Voltage Direct Current (HVDC) back-to-back converter station in Armenia
- › Financing the further **expansion of the transmission network**: new construction of substation D'dmashen, new construction of 400 kV OHL finally resulting in a 400 kV backbone
- › **Training and capacity building measures** to ensure sustainable operation and maintenance, development of technical, legal and commercial standards



Impact

- › Efficient utilization of generation facilities
- › Improved energy infrastructure
- › Enhanced power exchange, export and transit potential
- › Improved energy security
- › Economic development of Armenia and the region

»» Caucasus Transmission Network

Estimated Project Cost & Financing stage 1 & 2 (EUR m)

Cost (stage 1+2):

HVDC substation (Ayrum)	85.8
Substation D'dmashen	25.5
Transmission Lines	45.4
Spare parts, Tools and machinery,	24.5
Contingencies	
Engineering/TA	7.4
Taxes and duties	37.7
<u>Total Cost (Armenian side):</u>	<u>225.3</u>
(Cost on Georgian Side	6.6)



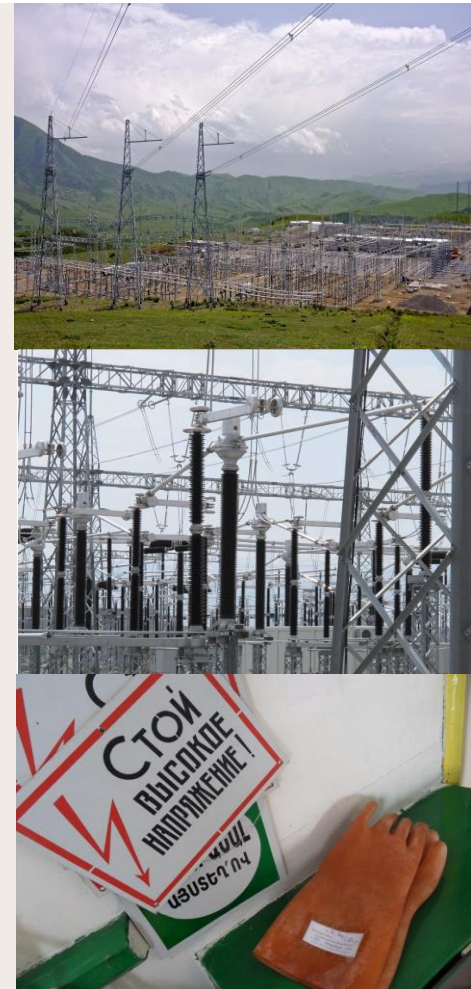
Financing (stage 1+2):

KfW	85.0 (stage 1) + 84.0 (stage 2)
EIB (under Mutual Reliance Initiative)	10.0 (stage 1)
EU NIF Financing	10.0 (stage 1)
Government of Armenia	37.7 (stage 1 + 2)
(Georgian State Electrosystem (GSE)	6.6 (not part of the project)

»» NIF Value Added

The NIF grant contribution

- › Softens tariff increases for Armenian end-users
- › Finances the technical assistance component, crucial for
 - › Application of EU Environmental Impact Assessment Directive
 - › Bringing Armenian sector regulations for operation of the project closer to EU (technical network codes, transparent market rules, tariff methodologies in line with EU / ENTSO-E standards)
- › Has triggered energy sector dialogue in Armenia (donor coordination, transparency)



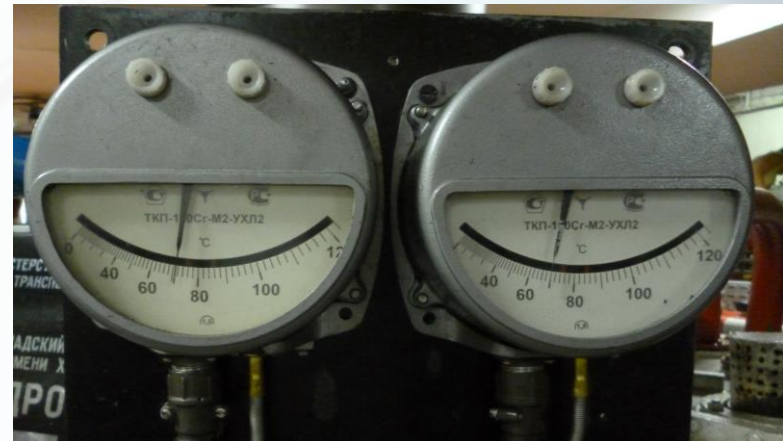
»» Thank you very much

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