

COMPREHENSIVE RENOVATIONS IN CZECHIA: COMBINING ENERGY PERFORMANCE CONTRACTING WITH SUBSIDIES

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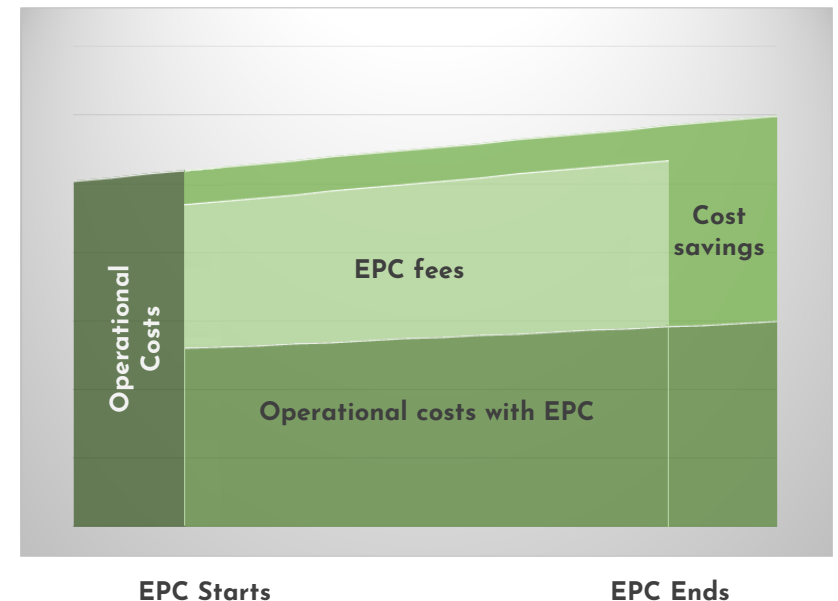


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ENERGY PERFORMANCE CONTRACTING (EPC) IN CZECHIA

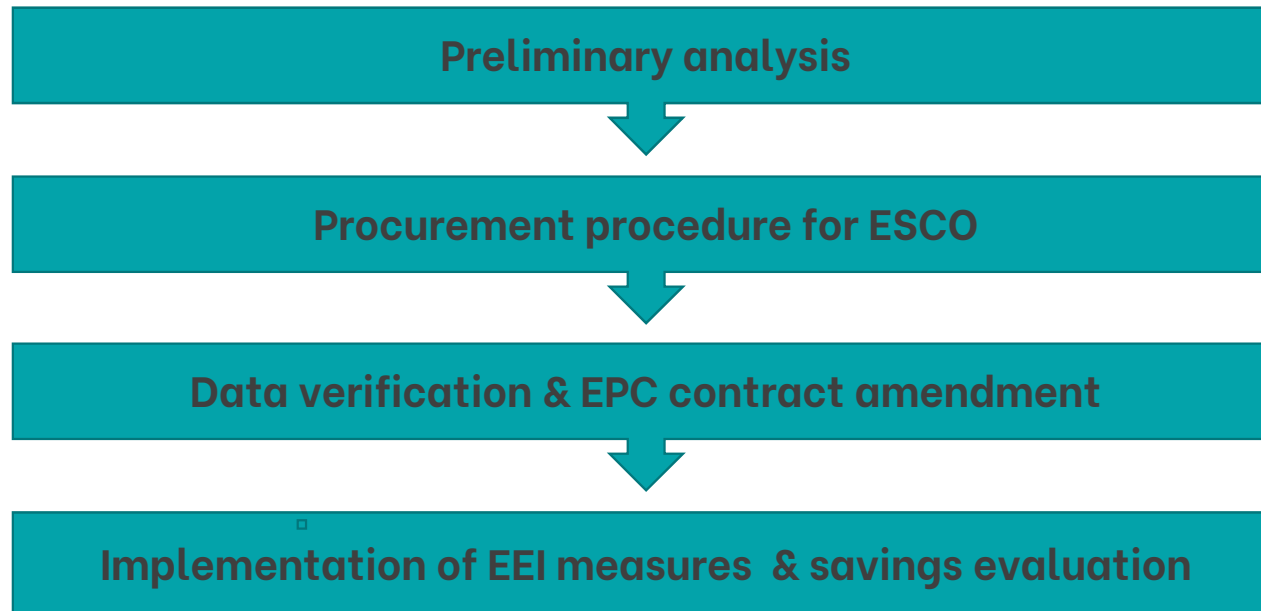
- › EPC provider (ESCO) carries out a **comprehensive energy efficiency service package**:
 - › design & implementation of energy efficiency improvement (EEI) measures, energy management
 - › often financing
 - › rarely operation & maintenance
- › **Costs of EEI measures implementation** are paid back from **energy savings**
- › ESCO assumes the contractually agreed performance risks of the project over the EPC contract duration
 - › If an EPC project **fails to achieve savings guaranteed** in the contract, the ESCO is obligated to **compensate savings shortfalls**
- › Savings are determined using IPMVP or equivalent



EPC MARKET IN CZECHIA

- › The Czech EPC market ranks **among the most advanced** in Europe
 - › high quality of projects
 - › standardisation
 - › availability of financing
- › **Between 1994 – 2021:**
 - › 270 EPC projects implemented
 - › EUR 170 million invested
- › Since 2007 most of **EPC receivables are sold to banks**
- › currently most of 20 EPCs in preparation are **combined with subsidies**
- › -> **this allows for large projects**

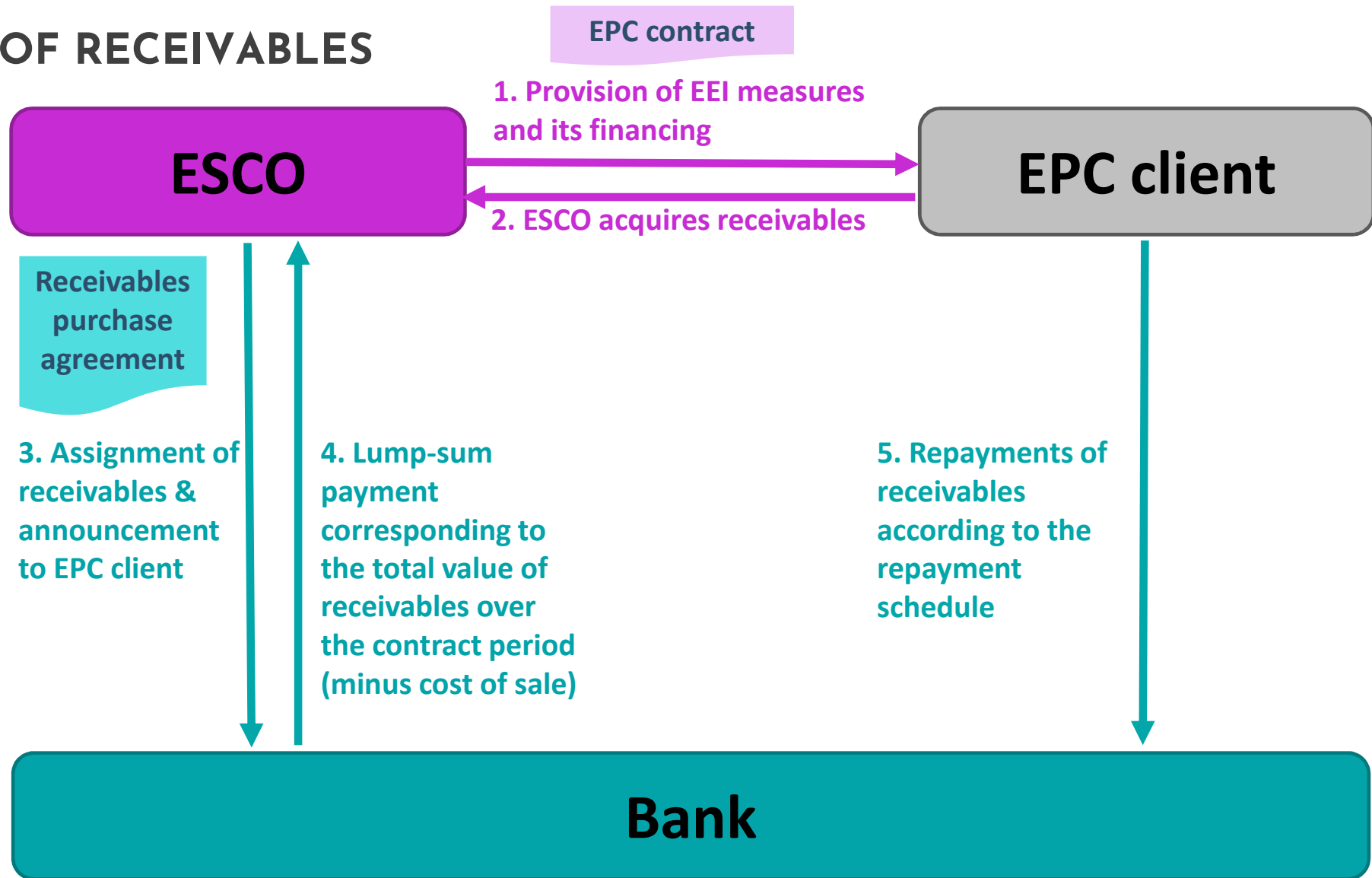
EPC PROCESS IN CZECHIA



SALE OF RECEIVABLES

- › EPC provider **sells off expected receivables** from its client **without recourse** to the EPC provider (= the seller of the receivables is not liable for a client's non-payment)
- › Arranged between **EPC provider and the bank** based on well-established and standardised contractual arrangements
- › **Private experienced ESCOs**
 - › sale of receivables removes obligations from ESCO's balance sheet, enabling financing new projects
 - › financial institution now assumes the credit risk of EPC client
- › **Private banks:** Československá obchodní banka, a. s. (ČSOB); Factoring of Komerční banka (KB)
 - › the bank bears only credit risk as the provider assumes the contractually agreed performance risks
 - › banks have had good experience with ESCOs and EPCs performance
- › **Mostly public clients** (government, regions, municipalities):
 - › clients are not required to use own resources or pay back the costs before end of the contract

SALE OF RECEIVABLES



COMPREHENSIVE RENOVATIONS IN GOVERNMENTAL BUILDINGS IN CZECHIA COMBINE EPC WITH SUBSIDIES

- › Comprehensive renovation
= co-ordinated implementation of:
 - › **building envelope measures** (including insulation and window/door replacement) financed mostly with **subsidies**, but also partially using **EPC model**
 - › **technology measures**, including interventions on heating, ventilating, and air conditioning (HVAC) systems financed by **subsidies** and **energy cost savings using EPC model**



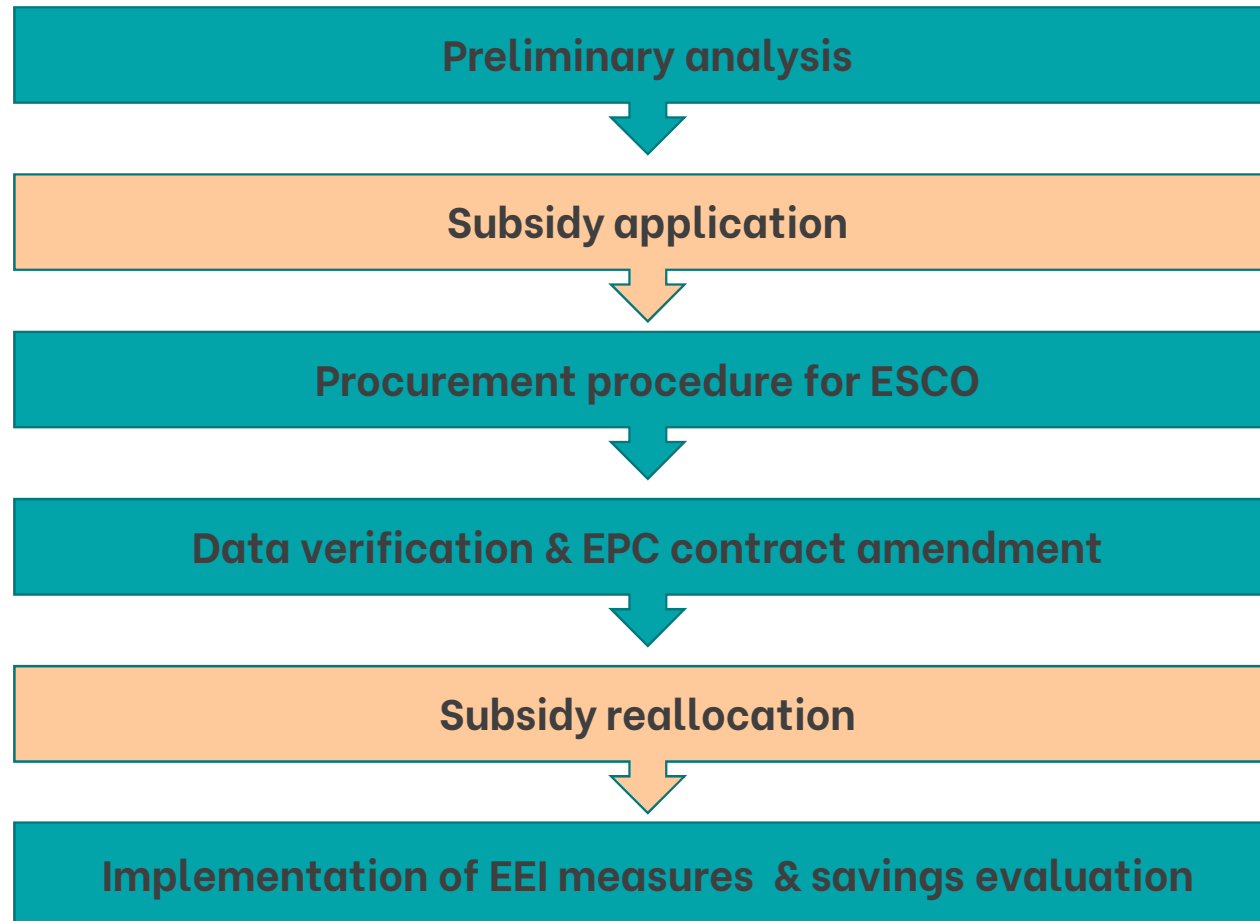
FINANCING STRUCTURE OF COMPREHENSIVE RENOVATION PROJECTS

- › Financing structure of the project must be economically viable and fulfil requirements of the State Environmental Fund (SEF) and the ministries
- › EPC projects are co-financed from **subsidies provided by SEF**:
 - › from Operational Programme Environment ([OPE 2021-2027](#)) -> min. 30% of applicable costs
 - › from New Green Savings Programme -> 45% of applicable costs
- › **Energy savings** – SEF requires minimum 30%
- › **Client own resources** may be also used to co-finance the project (this is usually up to 10-20% of the total investments.)

REQUIREMENTS OF THE STATE ENVIRONMENTAL FUND

- › Set of EEI measures must achieve **minimum 30% energy savings**
- › **Payments according to the SEF administrative rules:**
 - › firstly, the SEF provides subsidies to the EPC client who later pays the same financial amount to the EPC provider
 - › the whole price (including subsidy funds) has to be transferred to the provider no later than **10 days** after client receives the subsidy
- › ESCO has to submit **annual evaluation reports** to the SEF operating OPE (instead of energy audit) in compliance with IPMVP (or equivalent methodology)
- › ESCO provides **energy management** according to SEF requirements
- › -> many **administrative issues** which need to be resolved

EPC PROCESS WITH SUBSIDIES



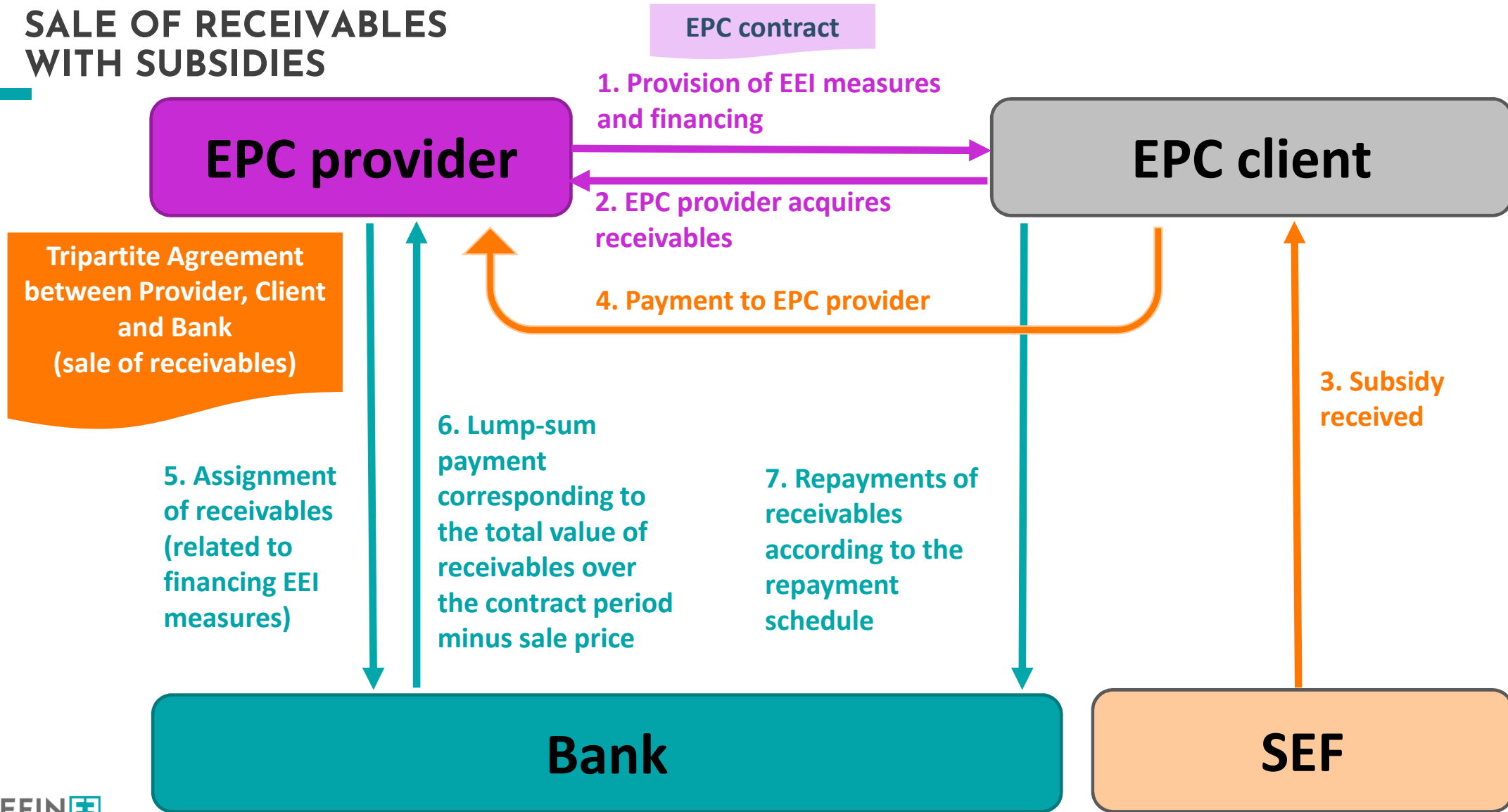
PROCUREMENT OF ESCO - COMPETITIVE PROCEDURE WITH NEGOTIATION

- > The **subsidy value** is specified in tender dossier, so all tenderers have **equal conditions**
- > **Necessary condition** – with use of the specified subsidy, the rest of the investment and financial costs are repaid back within specified contract length (8-12 years)
 - > The payment installments are never higher than the guaranteed cost savings
- > **Multi-criterial evaluation of tenders** based on award criteria:

Award criterion	Weighting Standard EPC	Weighting EPC with subsidy
Lowest price	35%	50%
Highest contracted guaranteed savings	55%	40%
Quality of the offer	10%	10%

- > Competition between tenderers leads to the **best solution for the client** – the same as in standard process for EPC without subsidies
 - > In some projects the guaranteed savings may become even higher than the payment installments

SALE OF RECEIVABLES WITH SUBSIDIES



TRIPARTITE AGREEMENT BETWEEN CLIENT, ESCO AND THE BANK

- › Tripartite agreement:
 - › replaced the **proof of cost reimbursement by the client to ESCO** requested by SEF
 - › obliges the bank, the provider and the client to take a **common procedure** in the form of preparing the sale of receivables before receiving the subsidy and transferring funds to the provider **no later than 10 days after receiving the subsidy**



REALLOCATION OF SUBSIDY POSSIBLE IF EEI MEASURES CHANGE

- › Based on subsidy application SEF **allocates subsidy**
- › If set of EEI measures change between submission of subsidy application and the finalization of set of EEI measures, the **subsidy may be reallocated between EEI measures** based on SEF approval
- › Original subsidy threshold should not be exceeded

SPLIT OF PAYMENTS TO ESCO

- › **A part of payments to ESCO is paid earlier**
 - › due to the **high interest rates and a sharp increase in prices** very beneficial to ESCO
 - › payments to ESCO were split into two parts:
 - › 1st part is paid after roughly half of the measures are installed and transferred to the client (1st handover protocol)
 - › 2nd part is paid after hand over of the complete installation to the client (2nd handover protocol)
 - › **optional feature**



PILOT PROJECT IN PSYCHIATRIC HOSPITAL BOHNICE

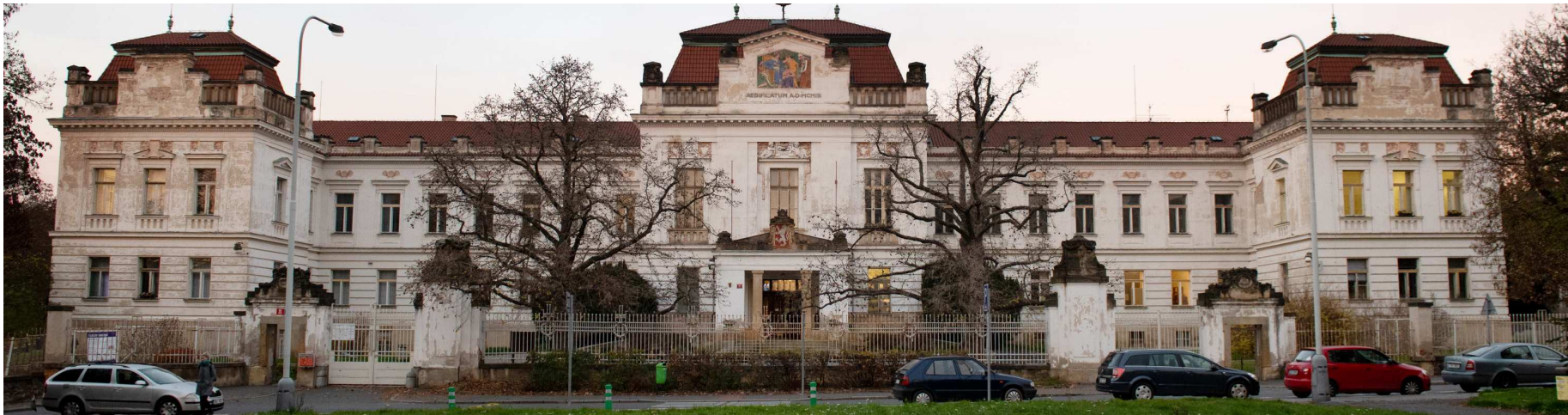
- › Psychiatric Hospital Bohnice is managed by Ministry of Health
- › Buildings are **protected monuments**

CONSTRUCTION MEASURES

- replacement or refurbishment of all windows
- only thermal insulation of attics possible due to monument protection

TECHNOLOGY MEASURES

- renovation of heat distribution network
- new lighting system, HVAC, IRC system
- new energy management control system



COSTS, SUBSIDIES AND GUARANTEED SAVINGS IN BOHNICE HOSPITAL

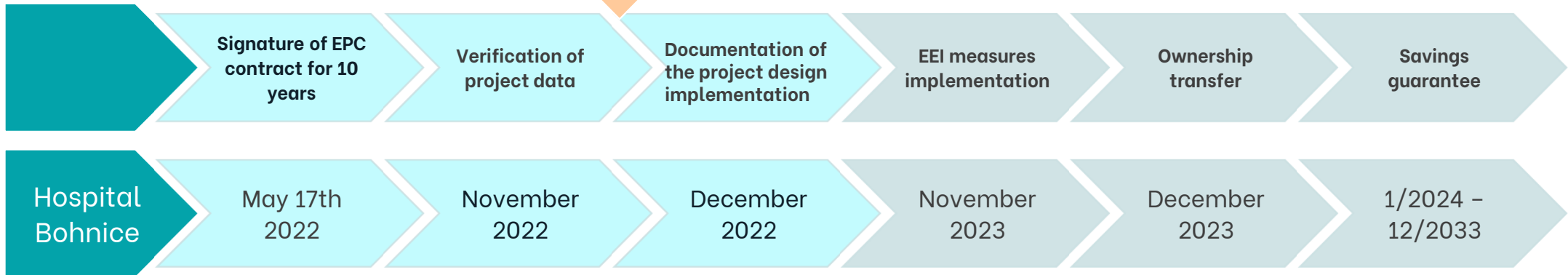
	Investment incl. VAT	Financial costs	Energy management	Investment incl. VAT + financial costs	Total costs
Mill. EUR	22.7	0.9	0.3	23.6	23.8



	Subsidies	Client repayments	Client own sources	Total financing of investments	Guaranteed savings
Mill. EUR	19.0	3.7	0.9	23.6	6.9



IMPLEMENTATION OF THE BOHNICE HOSPITAL PROJECT



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Thank you
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