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Definition of On-Bill Schemes in the European Context

A snapshot of the main issues

15/10/20 – Social Watt Workshop – Vincenzo Bianco – University of Genoa



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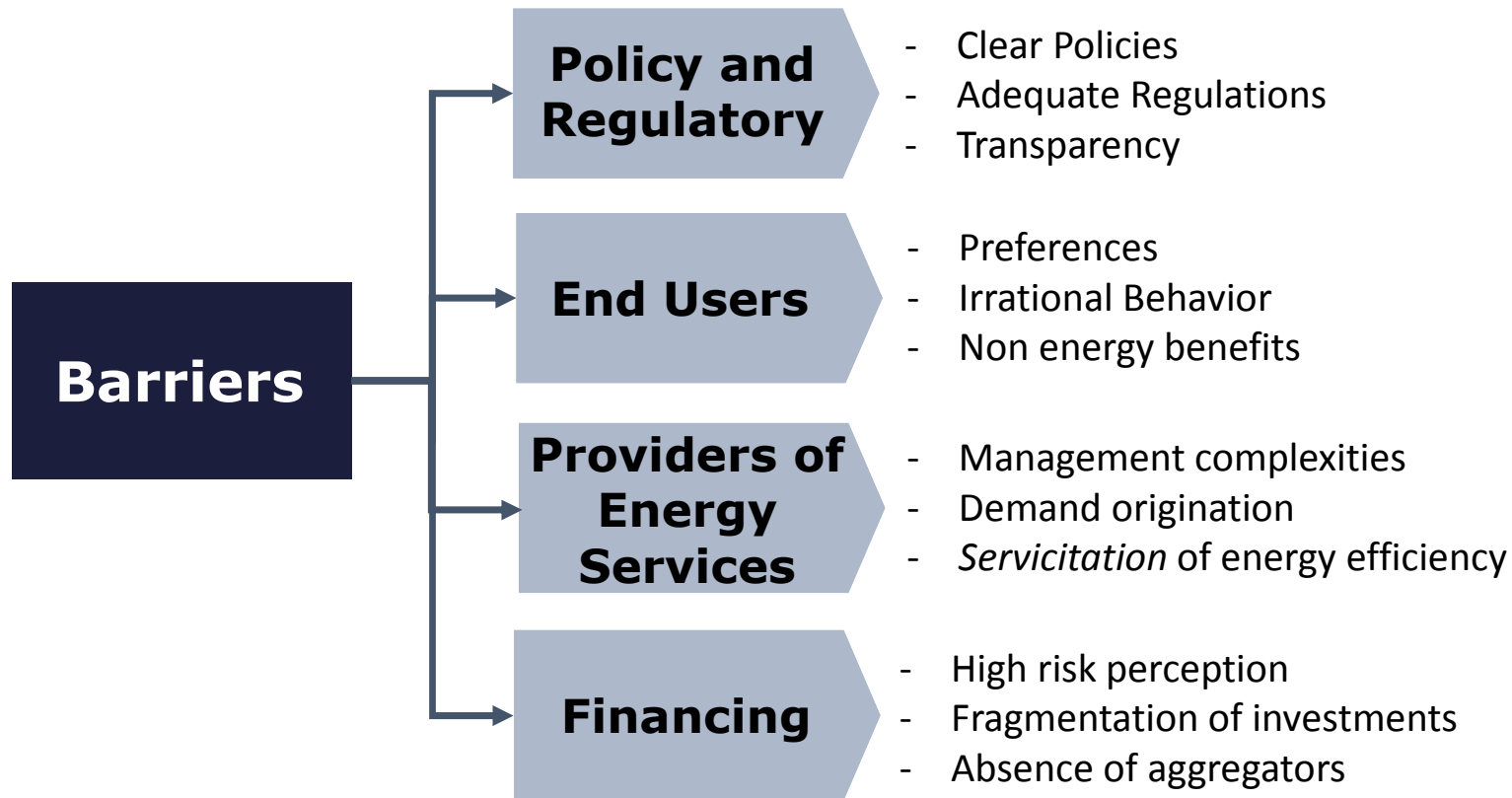
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- 1** **General Barriers to Energy Efficiency**
- 2** Barriers to the implementation of OBS
- 3** Implications for utilities
- 4** Possible Business Models

Barriers to the Implementation of Energy Efficiency Measures in the Residential Sector

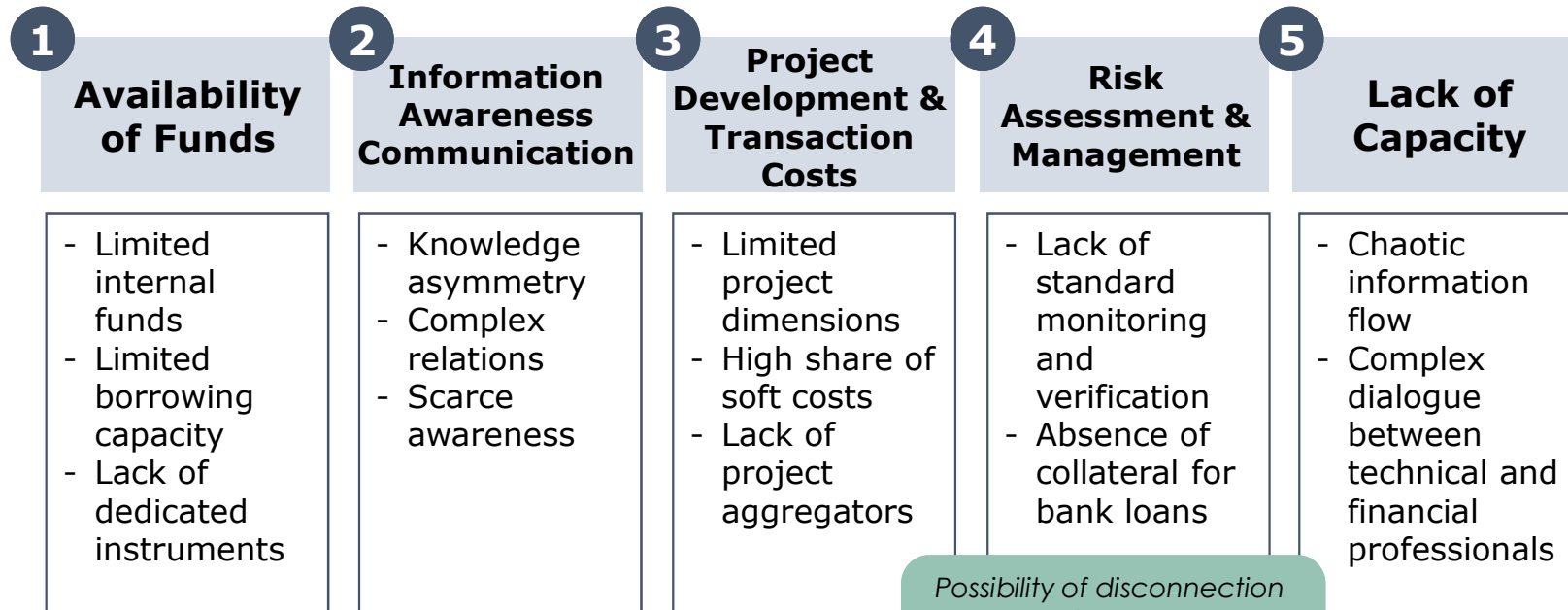
A set of barriers is hampering the implementation of energy efficiency measures



● A Focus on the Financial Barriers

Addressing financing barriers is fundamental to attract private capital in the process

Financing Barriers



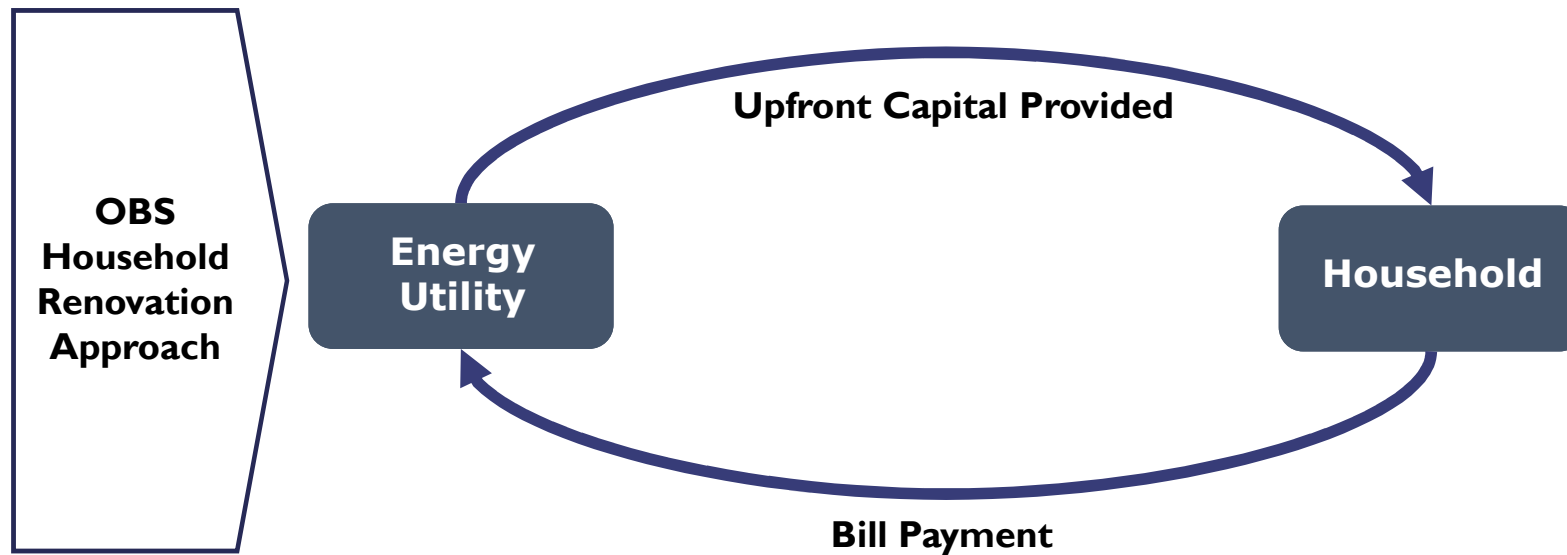
Possibility of disconnection works well in North American context. More complex applicability in EU.

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● Basic Framework of an on-bill scheme

OBS can support the renovation of existing buildings



—● Main Barriers in the European Context

European context presents its specificity with respect to North America

Barriers for OBF Schemes

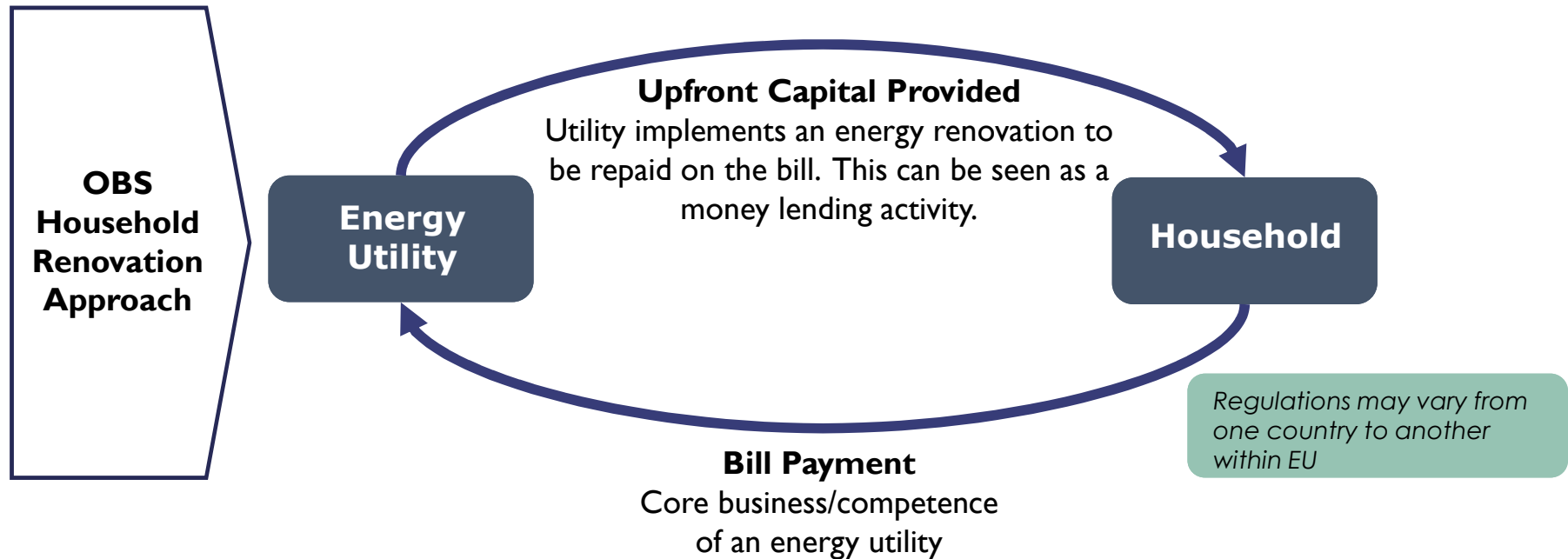
- 1 Regulatory Barriers**
Financial sector is one of the most regulated activity
- 2 Customer Related Barriers**
Divergent interests between owners and tenants
- 3 Utilities Related Barriers**
Relevant program management and strategic issues

Possible Issues with Financial Regulation



OBS may conflict with the financial regulation

On-bill schemes comprise the collection of payments from the utilities, which is one of the business core competences, but they also include the “lending” of money which is a core competence of financial institutions.



● Divergent interests between owners and tenants

Split incentives are an open issue and have a relevant role in hampering energy renovations

Split Incentives

Energy Related Split Incentives

- Tenant in charge of paying bills
- Tenant unable to implement EE interventions
- Owner not interested in EE

Usage Related Split Incentives

- Tenant not in charge of paying energy bills
- Tenant not interested in reducing energy consumption
- EE investments by the owner discouraged

Multi Tenants/Owners Split Incentives

- Situation typical for multifamily buildings
- Collective decisions based on qualified majority
- High level of conflict

Temporal Split Incentives

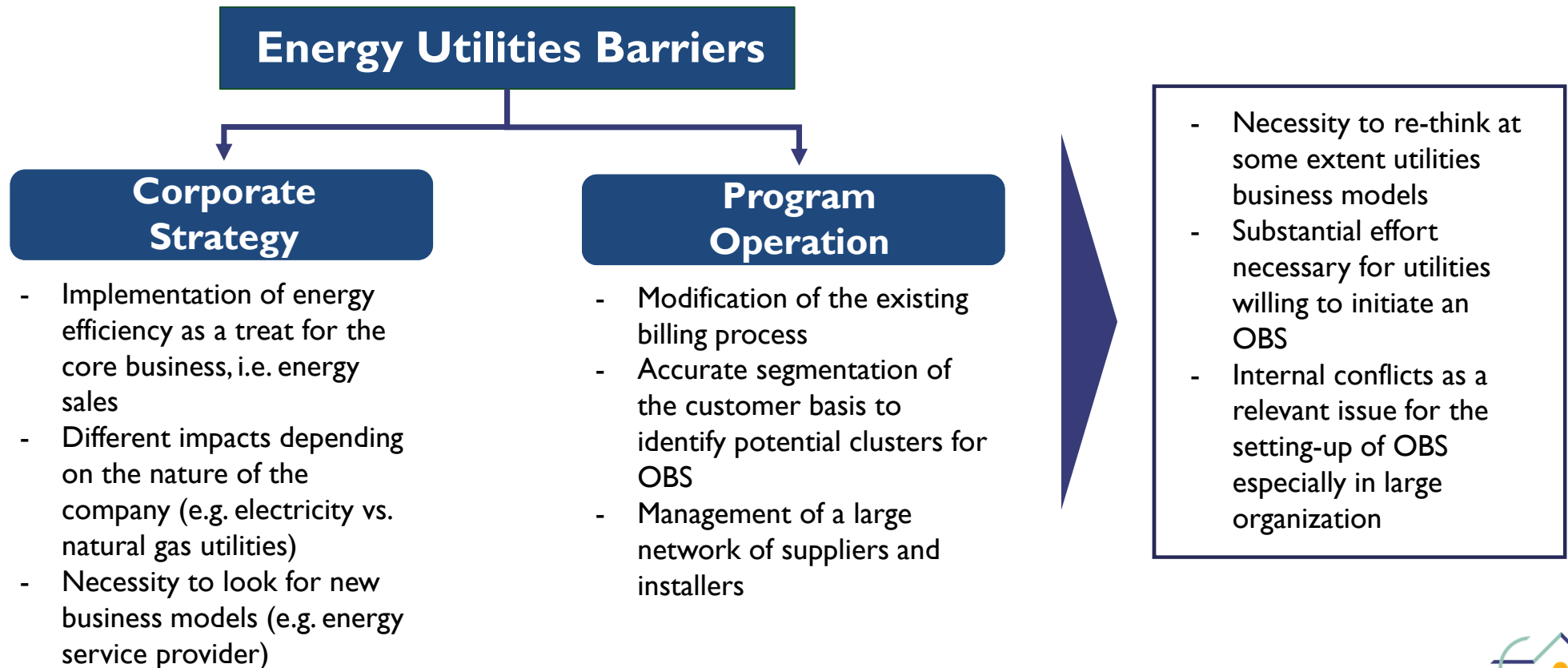
- Long pay-back period in relevant EE investments
- Probability of property change in the long period
- Impact of property uncertainty on EE implementation

- Split incentives represent one of the main issue in the implementation of EE measures in the residential sector
- It is necessary to set-up a mechanism which provide incentives to both client and tenants
- Behavioral changes and increased awareness of sustainability issues can soften this issue



Strategic and Operational Issues Related to Energy Utilities

Different barriers hampering the scaling-up of OBS are related to energy utilities



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- ② Barriers to the implementation of OBS
- ③ **Implications for utilities**
- ④ Possible Business Models

● Implications for utilities

Different kind of utilities are affected in a different way from the identified barriers

Utility Categories

Power Utilities

- Possibility to accelerate electrification of consumption
- Integration with other service
- Increase of client loyalty

Natural Gas Utilities

- Negative impact on energy sales
- Opportunity to review the business model
- Possibility to leverage on the existing customer basis

District Heating Utilities

- Opportunity to improve the operation (e.g. avoid the revamping of the plant)
- Optimization of the offered services
- Connection of more users

Retailers

- Possibility to sell EE services
- Leveraging on the existing customer basis
- Specialization on particular market niches

DSOs

- Possibility to act as facilitators, e.g. in collecting bill payments
- Possible active role in reaching final users, depending on country regulations



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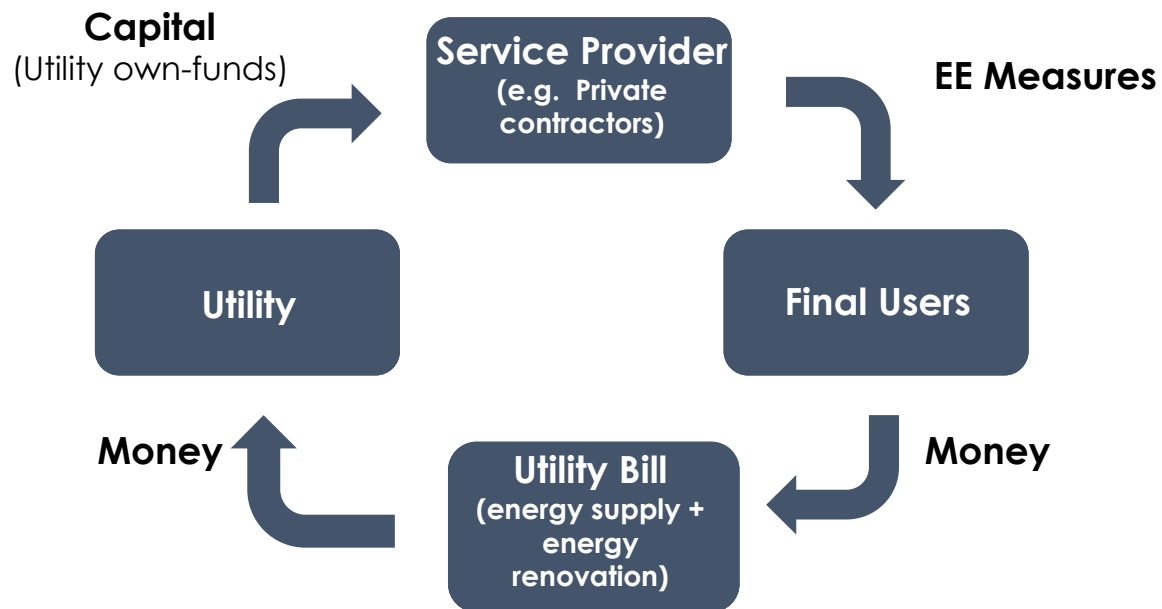
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● Conceptual Business Models developed in ROB

Acronym	Short Description
OBF	Standard on-bill financing model
OBFEF	On-bill financing model targeting vulnerable energy consumers
OBR	Standard on-bill repayment with two variants: <ul style="list-style-type: none"> ● Deposit on a utility's escrow account ● Works paid directly by the financial institutions Involved
OBRSPV	On-bill repayment scheme operated through a SPV
OBRM	On-bill repayment scheme operated by a master-servicer
OBRMS	On-bill repayment scheme operated by a master-servicer under/with the control of a state agency
OBSI	On-bill scheme, i.e. both OBF and/or OBR, for supporting Valued Added Energy Services (VAES)
DSOF	On-bill scheme, i.e. both OBF and/or OBR, with DSO adding as a facilitator
DSOA	On-bill scheme, i.e. both OBF and/or OBR, with DSO actively engaged in supporting EE measures.

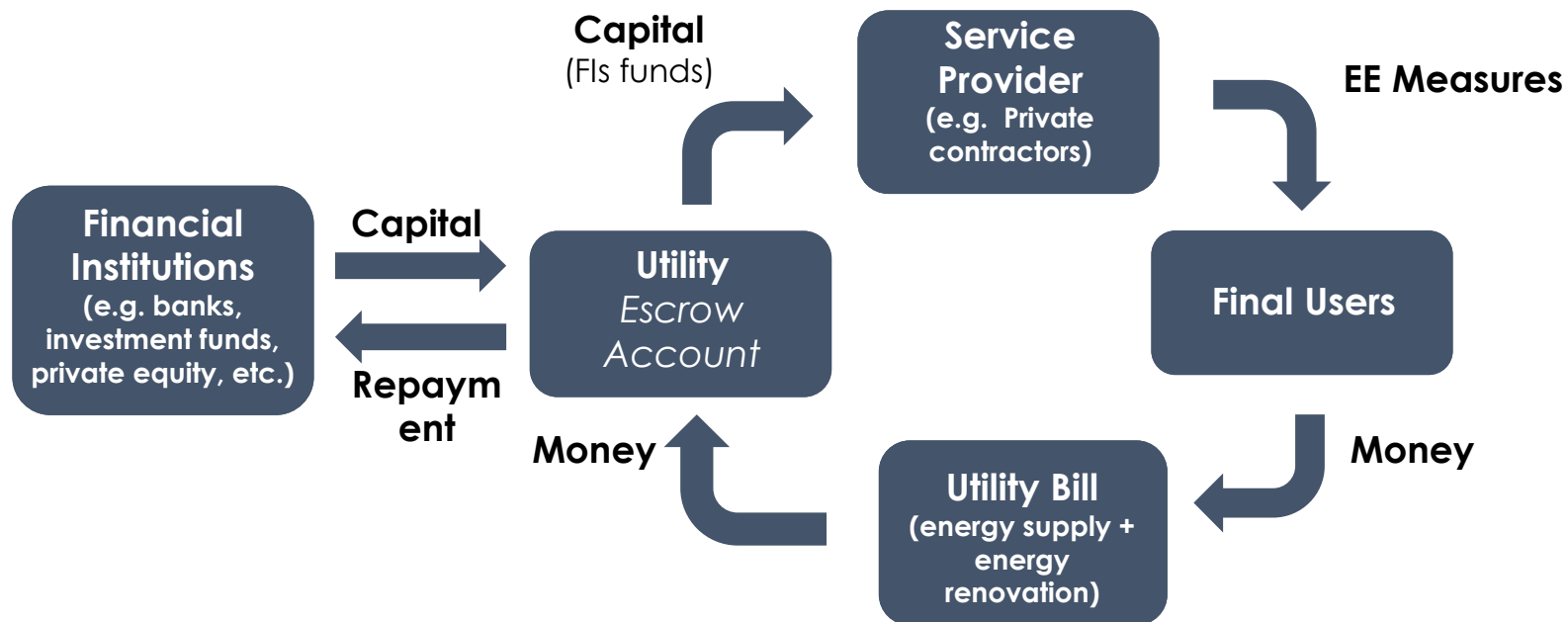
Standard on-bill financing (OBF)

Exemplary scheme of the business model for a standard OBF



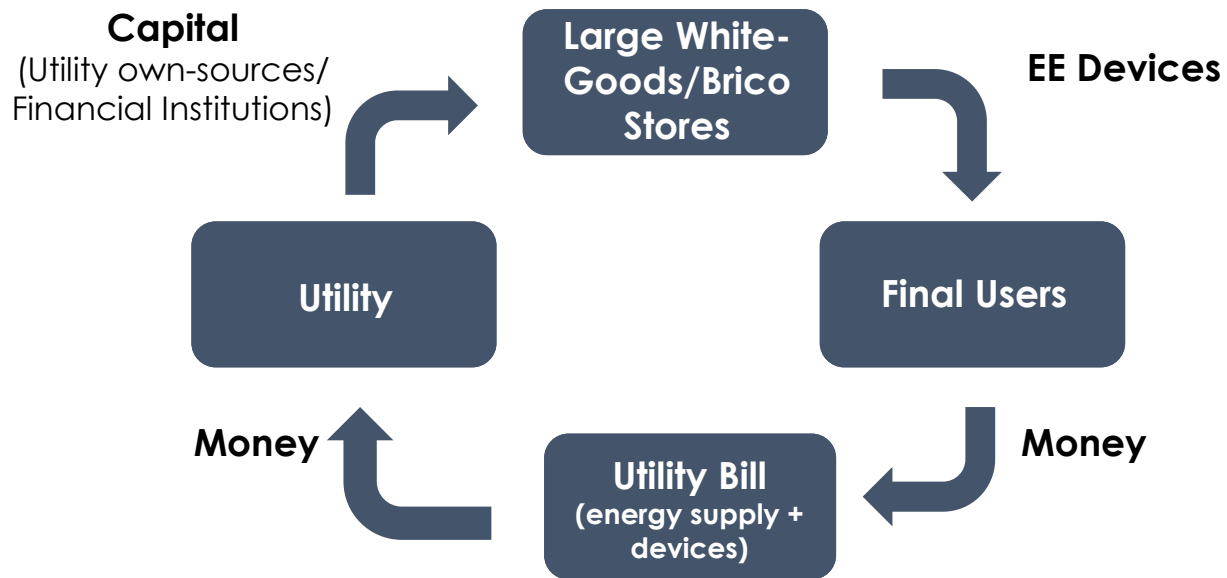
Standard on-bill repayment model (OBR)

Exemplary scheme of the business model for a standard OBR with escrow account



● OBF/OBR Targeting Energy Poor Customers

Exemplary scheme of the business model for a OBF targeting energy poor customers



Partners



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