



Hard-to-  
Reach Energy  
Users

“Hard-to-Reach” energy users  
and Transaction Costs:  
*A brief energy efficiency  
programme perspective*

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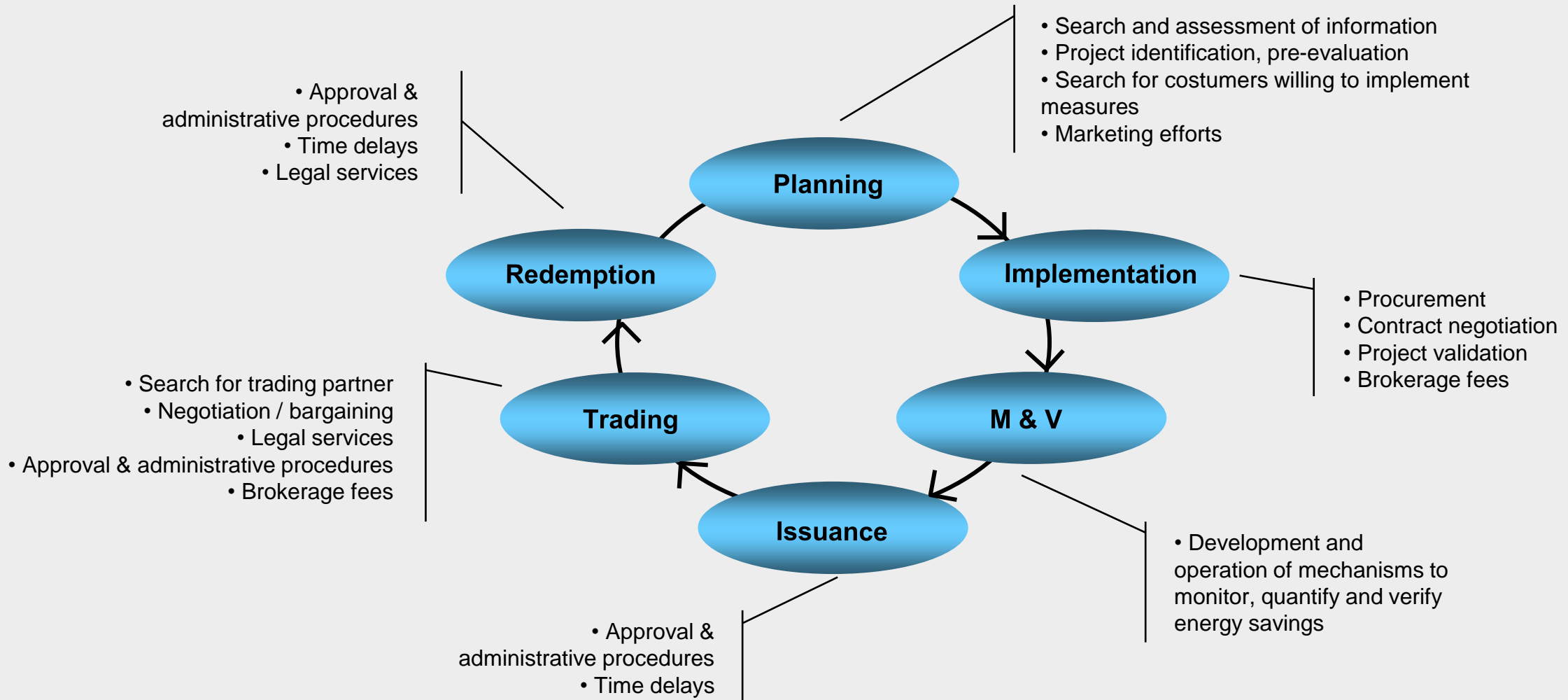
# Transaction costs - Concept

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- ‘Any cost that is not directly involved in the production of goods or services but that it is essential for realizing the trade as such’ (Coase, 1960)
- ‘The costs of arranging a contract *ex-ante* and monitoring and enforcing it *ex-post* as opposed to production costs’ (Matthews, 1986)
- Examples: costs related to search for information, approval, monitoring & verification, etc.

# Transaction costs – Potential sources

- Energy saving obligations (or ‘Tradable White Certificates’), WHY?





# Transaction costs – Estimated scale

| Case study                           | Sources of TCs   | Estimated scale          | Reference                 |
|--------------------------------------|--|--------------------------|---------------------------|
| Utility conservation programmes (US) | Promotion, delivery, and monitoring  | 30% of programme costs   | Joskow and Marron (1992)  |
| Free-of-charge energy audits (DK)    | Search for information, contract negotiation   | 15%–20% of audit costs   | Mundaca and Neij (2006)   |
| ESCOs (US)                           | Prospecting, proposal, project identification, M&V   | 20%–40% of project costs | Easton Consultants (1999) |
| Energy Efficient Commitment (UK)     | Search for customers, hiring managing agents, approval, contract negotiations, random quality checks | 10%–30% of project costs | Mundaca (2007)            |



# Input from the audience – Thanks!

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Please go to [menti.com](https://www.menti.com), use the code **1350429** and.....

- Rank the following sources of transaction costs for programmes targeting HTR energy users (1<sup>st</sup>= most important; 5<sup>th</sup> = not so important).
- Provide your 'best guess' about the estimated scale of transaction costs in programmes targetting HTR audiences