AmBIENCe: Active Managed Buildings with Energy Performance Contracting

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Introducing Energy Performance Contracting



The EPC model is flexible & adoptable





Buildings become smart(er)

a; ambience

Active management enables significant emission savings in a cost-effective way (5 to 30% for space heating)

Improve comfort, occupant satisfaction & productivity (up to 12%)

Demand Response (DR) enables buildings to answer the flexibility need of the energy system

What is energy flexibility? An example ...

Heating of building with traditional *ON/OFF* control



Heating of a building with *Smart* control



- → Heating switches ON/OFF when the lower/upper comfort limit is reached
- Heating switches ON/OFF
 whenever it wants
 long as the
 comfort is not compromised
 - → this is "energy flexibility"

Why energy flexibility gains importance?



Demonstrating system imbalance & predictability wind forecast



Combining EPC & Demand Response

Demand

Response

a; ambience

EPC & DR are two worlds with different Technologies, Services, Business Models, End Customer Profiles & Actors

Energy Performance Contracting

Twofold opportunity

Can an EPC model support the uptake of Demand Response?Can Demand Response improve the business case of EPCs?

On the intersection we improve the EPC model into a single consistent new concept

Analysing the active building EPC concept & business models in IT, BE, ES, PT

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	Italy	Belgium	Spain 🗧	Portugal
Current status of EPC/ESCOs	Ψ			
Current status of DR services		Ψ	X	
Current status of other enabling factors			X	

Building segments for Active Building EPC at ambience

Building segments		EPC potential today	DR/Flexibility potential today
Residential	Private Individual	Very low	Low
	Private Collective	Moderate	Low
	Public (social) Collective	Low	Low
Public		High	Moderate
Commercial		Moderate	Moderate
Industrial	Small/Medium	Moderate	High
	Large	Low	Very High

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The business value of DR in active building EPC and ambience



Flexibility tailored M&V protocol



Is active building management the silver bullet for energy performance contracting?



Any questions?

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