

Adding Customer Value to a local Smart Metering Rollout

Customer cash £, System finance €, Carbon Dioxide CO₂, Health&Wellbeing W☀♥

Issue	Functionality	Benefit	£	C	W
			€	O	☀
				2	♥
Consumer Awareness	In Home Display	Costs visible, prepayment support	£	*	*
Fuel Poverty	Episodes of low electricity prices	Opportunity for people at home all day to move consumption to low price/ low carbon periods	££	**	*
			€€	*	
Electricity Budgetting	Prepay instalments	Avoids disconnection, incentivises savings of perhaps 3-5%	££	**	*
Gas Budgetting	Prepay instalments	Avoids disconnection, incentivises savings of perhaps 3-5%	££	*	*
Oil Budgetting	Prepay instalments, use of oil rather than electricity for quick heat at winter peak demand.	Avoids disconnection, incentivises savings of perhaps 3-5% & up to 45% with no container buying. Reduces expensive oil spills	££	**	*
			€		
Oil theft and spillage	Level monitoring	Security and oilspill avoidance	£€		*
Heat Budgetting	Prepay instalments	Makes larger community heating installations and smaller CHP or biomass boilers economic	£	**	*
			€€	**	
Power Cuts	Temporary load limiting instead of disconnection	Essential lighting, refrigeration, and communications maintained	€		*
					*
Generator failure	Disconnects optional load	Cuts amount of backup Req'd.	£€		
Raised voltages	Home voltage optimiser added within rollout?	Reduced wear on appliances, reduced generation costs	£	*	
			€		
Excess wind energy at night	Connecting optional loads	Lower cost home heating etc, Avoids costly curtailment	££	**	
			€	*	
Heating hot water with imported fuels	Uses wind surpluses instead of heating oil, etc	Displaces high carbon fuels Underpins wind revenues	££	**	*
			€€	*	
Additional customer costs for renewables etc	Occasional no/lo cost immersion heating	Sensible heat as tangible benefit maintains broad public support	£	*	*
Energy Security	Uses electricity instead of imported oil fuels	Supports local economy and agriculture	£	**	
Electric Vehicles	Prevent grid overloading	Cuts grid reinforcement costs	€€	*	
Thermal energy storage	Uses available wind	Non toxic, inexpensive capacity	€€	**	
Heat Pumps replacing oil boilers	Delaying startup to avoid local overloads	Avoided grid investment	€		
'Just in time' heating	Memory of use patterns	Increases wind, solar contribution	££	**	
MicroCHP economics	Runs to produce at peak electricity prices	Makes it possible to finance more installations	££	*	
			€€		
Frost protection	Automatic heating	Avoids costly property repairs	££	X	*
Boiler failures	Remote diagnostics	Reduced maintenance costs	£€		*
Change timeclock	Remote programming	Assists elderly	£		*
Healthcare Alarms	Remote Monitoring	Fridge door, room temperatures;			*
Flash flood protection	One alarm alerts others	Advance notice via SMS, GSM			*
Security Alarms	Links with SMS etc	Low marginal cost	£		*
Fire Alarms	Remote Monitoring	Increased safety esp at night			*
Smart household appliances	Price control signal via compatible data hub	Cheaper clothes and dish washing, cheaper generation	££	**	*
			€€		
Energy Conservation	Consumption Data used with customer consent	Optimises investment returns, increases the volume of viable installations	££	**	*
			££		
			€€		