


## Technical sheet #1

### Technology solution package

	Energy efficiency		Comfort, health and well-being
	Smart grid readiness		Informed users




### Building typology

	Residential		 Office
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### Short description

Solution package focused on energy efficiency, in order to reduce the building energy consumption and the related carbon footprint, by optimizing control of heating/cooling generation and the corresponding emission and distribution systems.

### Solution package specific services

Domain		Standard configuration		Proposed configuration
	Heating/cooling	Individual room control		Individual room controllers and BACS communication
		Multi-Stage pump control		Variable speed pump control
		Temperature control depending on outdoor temperature		Temperature control depending on the load
	Lighting	Manual on/off switch for indoor lighting		Occupancy detection and control for indoor lighting

### SRI Score<sup>1</sup>

	Energy efficiency	+10-20%
	Comfort	+10-20%

### Main impacts and co-benefits

This category “energy efficiency” refers to the energy savings impacts of the smart-ready technologies on building energy performances. For instance:

- a better control of room temperature settings allows to reduce energy waste.
- a motorized solar shading system with automatic control based on sensor data can better manage solar gains, reducing cooling/heating demand.

The European standard EN 15232:2012 (revised in October 2017) introduced a classification of the building control systems and functionalities, providing the methods for an estimation of the impact that these systems have on building energy performance and use.

Well-designed BACS for heating and cooling can contribute to a reduction of the energy consumption, while increasing thermal comfort for the building occupants. The same is true for visual comfort resulting from a correctly implemented automatic control of shading system and indoor lighting.

<sup>1</sup> Calculated using SRI assessment package v4.4.

[https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/smart-readiness-indicator\\_en](https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/smart-readiness-indicator_en)