"ALBERGO LONDRA S.p.A."
Project co-financed under Tuscany POR FESR 2014-2020

The following works are necessary for an energy-efficient renovation of "Hotel Londra":

1. Replacement of the HVAC system in the whole building
2. Supplementary maintenance of part of the roof on the sixth floor, on the side of Via Jacopo Diacceto

Recently, the Regional Authority of Tuscany provided an outright grant in order to carry out the above-mentioned works. The amount of the funding is equal to 30% of the following investments

INVESTMENT PROVIDED IN THE CALL FOR PROPOSALS: 329,719.33 € + VAT

OUTRIGHT GRANT: 98,915.799 €

REPLACEMENT OF THE HVAC SYSTEM

To carry out this work, the current HVAC system, located inside the garage, has to be dismantled and replaced with a new heat pump, which will be installed on the 6th-floor terrace.

The current HVAC system reached the end of its service life and started to show problems with its performance and reliability.

Together with the new heat pump, an energy-saving condensing boiler will be installed to replace one of the two power suppliers currently available. The other power supplier will be kept as a backup in case of need.

The system, made of a heat pump and boilers, will have a new collector in the supply and return flow with pumps and circulators that will allow to save electric power.

Works have started at the beginning of January and they are about to be completed.

SUPPLEMENTARY MAINTENANCE OF THE ROOF ON THE 6TH FLOOR

The 6th floor, on the side of via Jacopo Diacceto, has a roof with sandwich panels that cause significant infiltration of water and have low thermal resistance, leading to heat rejection and malfunction affecting the guests of the hotel.

Therefore, there is the need for a renewal operation to remove the current roof and install specific expanded-polyurethane panels with heat transfer rate lower than 0.24 W/mqK, complying with Italian legislation.

Goals related to energy saving

Goals stated in the call for proposals

	A	B	C	D
Project	Primary-energy consumption before the work (toe/year)	Estimated primary-energy consumption after the work (toe/year)	Saved primary energy (toe/year) (A-B)	Estimated energy saving (%) (A-B)/A
Work 1a: Insulation of horizontal slabs	167.81	161.5	6.3	3.75
Work 3a: Replacement of HVAC system, powered by energy-efficient heat pumps	167.81	121.71	46.10	27.47
Total (>10%)			52.4	31.22

Goals related to the reduction of greenhouse-gas emissions

Goals stated in the call for proposal

Project	Co2 (ton)	Co2eq (ton)	NOx (kg)	PM_{10} (kg)
Work 1a: Insulation of horizontal slabs	3.9	3.9	2.48	0.03
Work 3a: Replacement of HVAC system, powered by energy-efficient heat pumps	57.62	57,62	41.5	0.65
TOTAL	61.52	61.52	43.98	0.68