Field of the best practice	☐ PAPER ☐ **ELECTRIC** ☐ OTHER ☐ **THERMAL** ☐ MOBILITY
Title of the best practice	**Demonstration Project implementing RES & EE in the Lyceum of Fyli**
Country	Greece
City	Fyli, Attica
School's name	LYCEUM OF FYLI
School's website	Lyk-fylis.att.sch.gr
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Short summary of the best practice	The school is of a typical school construction, done by state School Building Organization. But, it was proven an energy consuming one. So, the Municipality performed a techno-economic study on possible EE measures to be applied to this school, in order to be eligible to apply to EU-funded Operational Program's subsidies, when available. 
Goals	The study reveals that prior to any interventions, the existing energy class of the school was C. After implementation of the EE actions the energy class improved by one class, to B and reduction of CO_2 up to 41,7 tn/yr.
Main activities	The main energy efficiency and RES actions proposed

	are: 1. Installation of a new Heat Pump 130 kW, replacing the existing oil heating system of 186 kW_{th} and of different split-unit heat pumps. 2. Replacement of the T8 lighting system, mainly in the classrooms with new LED features, of an average 10-15W. 3. Installation of a 19,92 kW PV system in the roof (83 panels of total area of 135.3 m^2) for producing green electricity.
Background	The school was constructed, in 1992, by the state-owned School Building Organization (SBO) and its area is 1.922 m^2, in two levels: a ground level and of 1^{st} floor. The school building is constructed with reinforced concrete and masonry filling from brickwork with thermal insulation. The majority of the openings are of double-pane windows in aluminum framework.
Time frame	2016
Other relevant information	The analysis of the existing energy situation of the school shows that the total energy consumption is calculated to 87.1 kWh/m^2 and the CO_2 emissions to 26.6 kg/m^2. The implementation of the energy efficient measures, described previously, shows that the total energy consumption drops to 23.3 kWh/m^2 and the CO_2 emissions to 4.9 kg/m^2. The total cost of the proposed measures is calculated to 87.340 € and the amortization period 11,8 years.
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