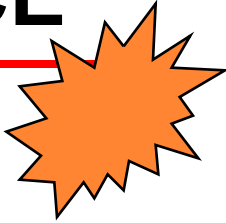

ORDINANCE ON ENERGY EFFICIENCY IN THE CITY OF ROMA

Jacopo Fedi

RomaEnergia

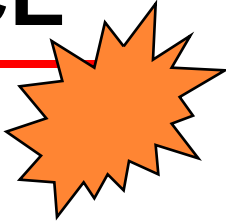
Energy Agency of the Municipality of Rome

IDENTIFICATION OF THE ORDINANCE



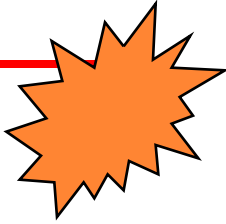
- Issued as a consequence of:
 - Italy: Law no. 192 / 2005 (implementation of EPBD Directive)
 - Region Lazio: Law no. 15 / 2004
- Date: February 2006
- Issued by: City Council of Roma
- Strong measure: direct **modification of the City building code**

IDENTIFICATION OF THE ORDINANCE



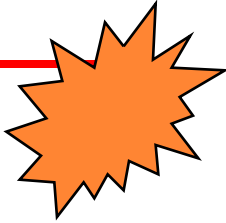
- Minimum share of renewables in the global building energy consumption
- Specific minimum requirement for domestic hot water
- Mandatory water saving measures
- Special technical areas will be not included in the calculation of the building volume which is submitted to taxation, e.g. the hot water storages for the solar thermal plant and the technical rooms for photovoltaic inverters

SCOPE



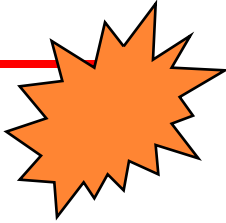
- **Geographical:** the City of Roma
- **Buildings addressed:** new/refurbished, public/private, all typologies (industrial excluded)
- Only global refurbishments, which regard technical plants
- **Exemptions:** in the historical or protected areas, it is necessary to check the compatibility in terms of historical value, shape of the buildings, etc.
- **Technologies:** no specification about allowed technologies, but solar thermal collectors and photovoltaic modules are explicitly mentioned in the text

ROLES



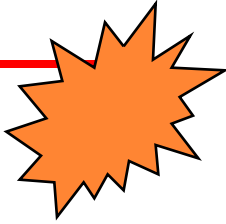
- **Municipality of Roma:** developing the ordinance, checking the fulfilment
- **RomaEnergia (Energy Agency):** developing the software
- **ACER (Roman Association of Building Companies):** involved in some hearings and in a workshop, but that was not enough; their general attitude was quite negative

QUANTITATIVE OBLIGATION



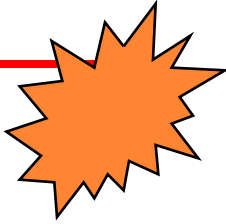
- From 2008 on, 30% of the building overall energy demand shall be covered by renewables
- For public buildings and buildings included in special restoration projects, the minimum requirements raises up to 50%
- Moreover, at least 50% of the domestic hot water demand shall be produced by renewables

QUANTITATIVE OBLIGATION



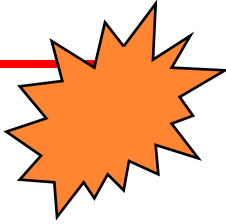
- RomaEnergia provided designers and building companies with a software for fulfilling the requirements
- The software mixes hot water and space heating in just one indicator of energy performance
- Therefore solar is not mandatory at all!

FURTHER REQUIREMENTS



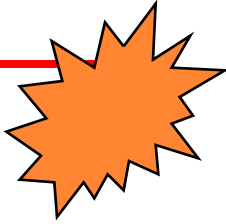
- Solar collectors should not be seen from below
- Boilers should preferably be inside the building (often not fulfilled)

CHECKS



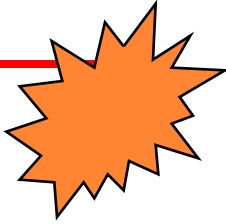
- The documentation for submitting the request of building permission (or the “D.I.A.”) must include a technical report, signed by a professional
- This report should assure that the described requirements have been met
- One more check about the installed plants and their capability to cover the required energy consumption is done before the building gets the final permission
- These are not additional checks, but only additional components of the checks normally done for the buildings

FLANKING MEASURES



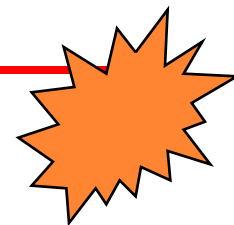
- No flanking measures were put into practice!

THE GOOD THINGS...



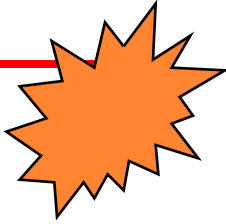
- Powerful ordinance, since it directly affects the City Building Code; therefore it should be “normal building praxis”
- Designers and building companies are interested in developing sustainable projects...why?
 - Element of competition
 - Legal responsibility
 - Passion towards the subject

...AND THE BAD ONES



- No actual check by the Municipality...it's just one more paper!
- No detailed rules about quality of products and installation
- Lack of comprehensiveness of the measure:
 - Communication policy
 - Flanking measures (e.g. training of Municipality personnel)
 - Monitoring plan

FUTURE OUTLOOK



- Not likely that something will change, since:
 - The City Council is a brand new one
 - Requirements at national level are expected
- But maybe there is no way back...
- ...even though the public debate is now focused on “no-clear” energy