

Energy Audit: monitoring

Proposal for industrial sector and future
developments

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Monitoring

Energy audits 2015: They have been considered valid estimates, calculations, indirect measures of energy sources analyzed during the audit.

In the next cycle of diagnosis (**obligation of December 5, 2019** for those who have complied with the obligation in December 2015) will, however, need to measure a large part of energy carriers being analyzed.

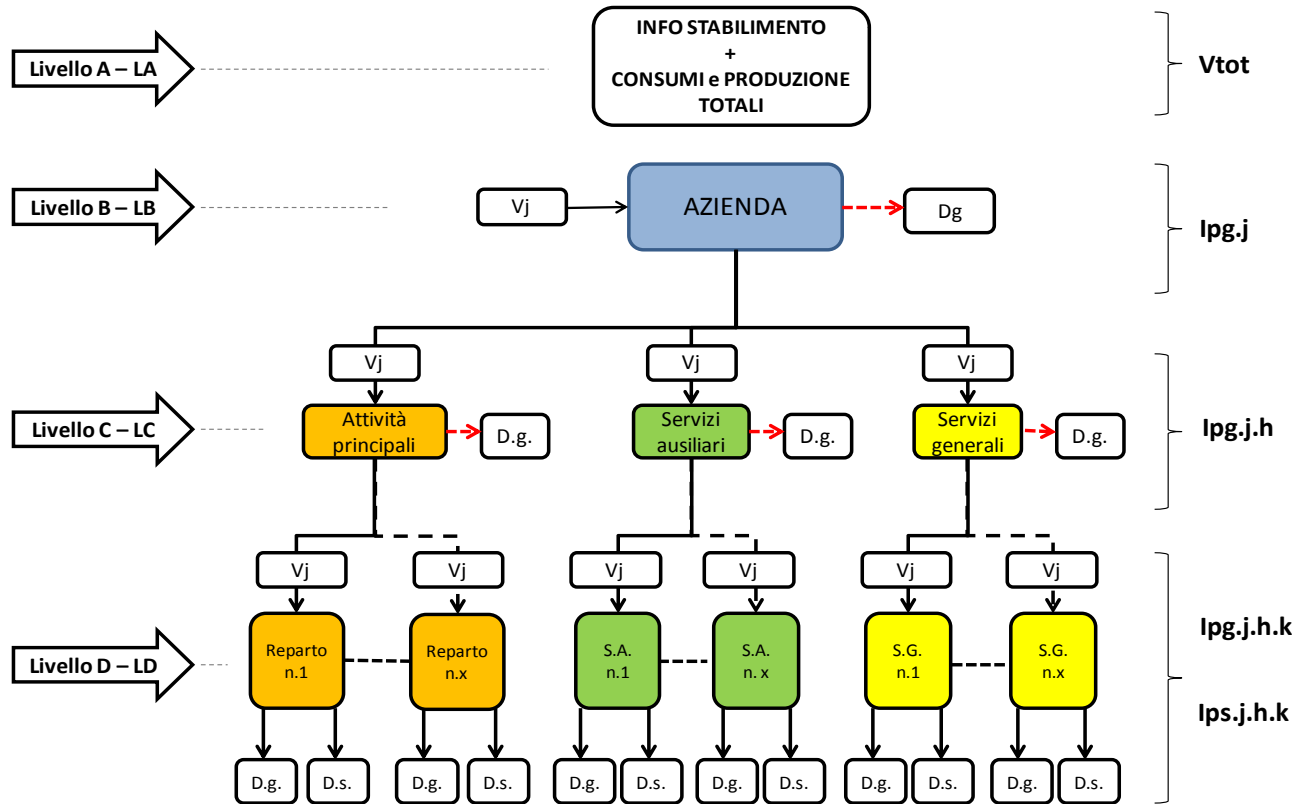


Monitoring

The measurement percentage will depend on the type of analyzed company (depending on whether it belongs to the industrial sector or the service sector) and from the company to which the analyzed consumption (**main activities, auxiliary or general services**).



Monitoring



Guide Lines: obliged sites

SITES OBLIGED TO MEASURE

The sites obliged are identified as follows:

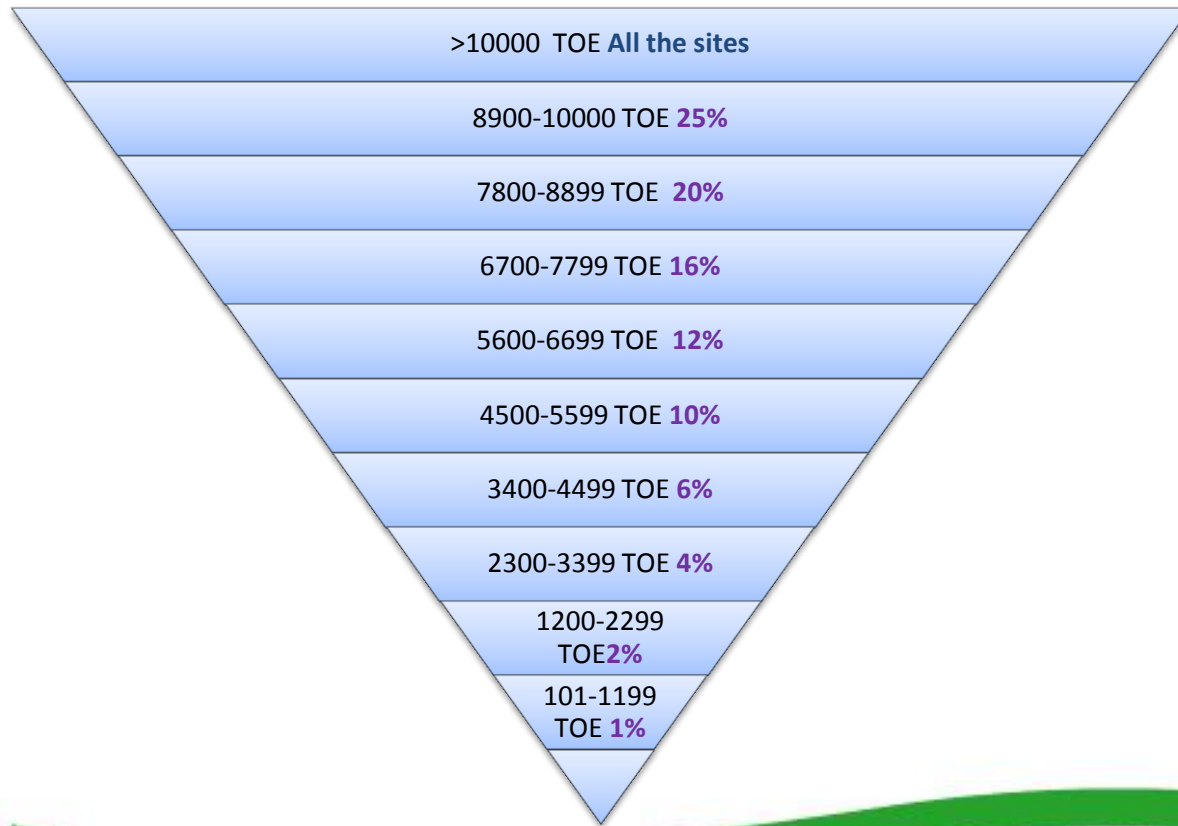
- **Single-site enterprises (obliged sites):** All enterprises in the reference year have had a higher consumption at 100 TOE;
- **Multisite enterprises (obliged sites):** All classified as industrial sites that have used it in the main reference of 10,000 TOE.

The reference year is the year n-1 compared to n-th of obligation.



Guide Lines: clustering

In the case of "industrial" sites with equal or lower consumption at 10,000 TOE (in the reference year) it applies to the following clustering:



Guide Lines: exclusions

- They can be excluded all sites for which the consumption, in the reference year, were below the 100 TOE.
- Defined, for each tranche, the number of sites covered to the extent required, the obligor is entitled to decide on which site (single-band) to implement the tracking system. It is not mandatory that it is the same site subject of DE in 2015.



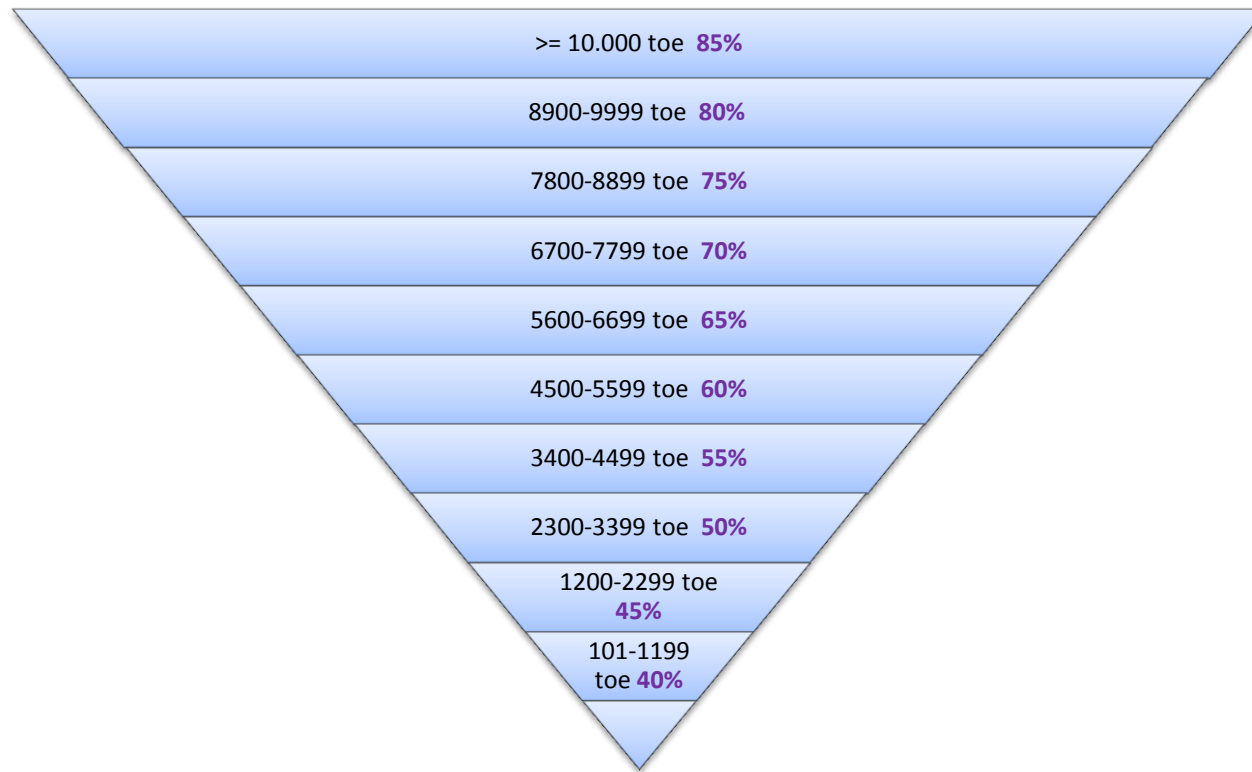
Guide Lines: coverage's levels for industrial sector

For industrial sites with total consumption more than 10,000 TOE / year

- **85% coverage of the measured data**, for each energy carrier, relative to the total of the same source of energy consumption in the reference year (as noted in the fiscal meter - Level A) **for the area (level C) "main activities"**
- **50% coverage of the measured data**, for each energy carrier, relative to the total of the same source of energy consumption in the reference year (as noted in the fiscal meter - Level A) for the area (level C) **"auxiliary services" (compressed air, etc etc)**
- **20% coverage of the measured data**, for each energy carrier, relative to the total of the same source of energy consumption in the reference year (as noted in the fiscal meter - Level A) for the area (level C) **"general services" (lighting, canteen, air conditioning)**



Guide Lines: coverage's levels for industrial sector – «main activities».



Guide Lines: % industrial sector

Consumption reference year (tep/anno)		Main activities	Auxiliary services	General Services
> 10.000		85%	50%	20%
8900	10000	80%	45%	20%
7800	8899	75%	40%	20%
6700	7799	70%	35%	20%
5600	6699	65%	30%	20%
4500	5599	60%	25%	10%
3400	4499	55%	20%	10%
2300	3399	50%	15%	10%
1200	2299	45%	10%	10%
100	1199	40%	5%	10%



Guide Lines: monitoring methodologies

The measures will be undertaken in accordance with the following methods:

Measuring campaigns: the duration of the measurement campaign will be chosen in a representative way (in terms of significance, reproducibility and validity time) compared to the type of plant process (eg: seasonal plants).

Installation of measuring instruments: in the case of measurement instrumentation "permanent" installation, you should take as a reference the preceding calendar year from the year of implementation of compulsory energy audits.



Guide Lines: monitoring methodologies

Type instruments allowed:

- Existing instruments;
- New instruments (manual, remotely, with monitoring software)
 - The measures must conform to national and international reference standards (ISO, UNI, IPMVP Protocol etc etc).
 - In the case of indirect measures it is subject to the possibility of using widely-established methods of calculation in the current technical literature.



Thanks for the attention

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