

Directive 2012/27/EU

Article 5

**Exemplary Role of the Buildings of Public
Bodies**

December 2013

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2. INTRODUCTION

In accordance with Article 5(1) of Directive 2012/27/EU, of the European Parliament and of the Council on energy efficiency, each Member State shall ensure that, as from 1 January 2014, **3% of the total floor area of heated and/or cooled buildings owned and occupied by its central government is renovated each year**, to meet at least the minimum energy performance requirements that it has set in application of Article 4 of Directive 2010/31/EU. The 3% rate shall be calculated on the total floor area of buildings with a total useful floor area of over 500 m² owned and occupied by the central government of the Member State concerned that, on 1 January of each year, do not meet the national minimum energy performance requirements set in application of Article 4 of Directive 2010/31/EU. That threshold shall be lowered to 250 m² as of 9 July 2015.

Through paragraph 2 of the same article, the Directive also allows that the abovementioned requirements need not be applied with regard to the following categories of buildings:

- a) buildings officially protected as part of a designated environment, or because of their special architectural or historical merit, in so far as compliance with certain minimum energy performance requirements would unacceptably alter their character or appearance;
- b) buildings owned by the armed forces or central government and serving national defence purposes, apart from single living quarters or office buildings for the armed forces and other staff employed by national defence authorities;
- c) buildings used as places of worship and for religious activities.

Instead of establishing such schemes, paragraph 6 of the same article states that Member States may opt for an **alternative approach** and implement other cost-effective measures, including deep renovations and measures for changes in the behaviour of occupants, to achieve by 2020, energy savings which are equivalent or greater than those which would be achieved through the application of the provisions of paragraph 1.

In compliance with the provisions of Article 5, **Portugal**, hereby **notifies the Commission** that it has decided to use the alternative approach set out in paragraph 6

and communicate the alternative measures that it intends to implement so as to obtain improved energy performance in heated and/or cooled buildings, owned and occupied by central government.

3. NATIONAL BUILDINGS

For the purposes of this report, it is important to describe the State's buildings with regard to the climate, construction techniques and the behaviour of occupants, all of which are reflected in energy performance. As with other countries in southern Europe and the Mediterranean Basin, the influence of the climate on buildings is less severe, winters are much milder while summers are hotter. This leads to lower heating requirements but higher cooling needs. Logically, it is important to note that the predominance of either function (heating or cooling) in a specific building will also depend on what it is used for and its architecture and construction. The passive solutions employed allow both heating and cooling energy needs to be minimised.

Also of note, and accompanying the migratory flows seen in recent decades in Portugal, is the existence of a large number of buildings owned and occupied by central government in big cities and in their historic centres. As such, there is a relatively high number of classified buildings, either because they are monuments or due to their architectural value, which present significant limitations to their use and restoration and to the implementation of energy efficiency measures.

There is a predominance of individual climate control units and few centralised systems, and in general such units only cover a part of the area used. As a result, it can be seen that in most cases energy consumption for climate control is low when compared to reference values for buildings with nominal conditions of use. Most energy consumption is due to lighting, computers, printers and other equipment.

Based on data available from the National Statistics Institute (www.ine.pt) for 2011, a breakdown of the types of heating used in housing in mainland Portugal can be seen in the table below, which shows that the use of climate control systems is low:

Table 1 – Type of heating system per standard dwelling

Type of System	Number
Central heating	424 717
Non-central heating- fixed devices (salamander, wall heaters, etc.)	304 421
Non-central heating- heat exchanger	339 730

Non-central heating – open fire	711 897
Non-central heating – mobile heaters (electric, gas, etc.)	1 604 070
None	440 196
TOTAL	3 825 031

For the purposes of applying the Energy Certification System, only central and fixed systems are considered as climate control systems. It can be seen that only 28% of dwellings have heating systems.

As a result of the current economic downturn, there has also been a reduction in disposable income, impacting on consumption by families, companies and the State. The following table gives a breakdown in the evolution of energy consumption per inhabitant from 2004 to 2011. The drop in energy use is evident and the figures for 2011 are almost identical to those for 2007. It is highly likely that the use of climate control systems was one of the areas most affected.

Table 2 – Energy Efficiency Reference (IEEref)

Place	Energy consumption per inhabitant (kWh/inhab)							
	2011	2010	2009	2008	2007	2006	2005	2004
Mainland Portugal	4 728	4 826	4 647	4 692	4 752	4 654	4 525	4 402

It can thus be seen that climate control systems are little used in buildings in Portugal, a result of both the country's economic situation and a mild climate with limited temperature variations due to the influence of the Atlantic and the Mediterranean.

4. BUILDINGS OWNED AND OCCUPIED BY CENTRAL GOVERNMENT

For the purposes of complying with the provisions of Article 5(5) of Directive 2012/27/EU, more specifically with regard to conducting an inventory of heated and/or cooled central government buildings with a total useful floor area over 500 m² and, as of 9 July 2015, over 250 m², information from different sources was used. These sources include:

- a) The Energy Certification System Database which lists certified public buildings, as a result of transposing Directive 2002/91/EC, repealed by Directive 2010/31/EU;
- b) The ECO.AP Barometer, to measure energy efficiency in public administration buildings and facilities, further to Council of Ministers Resolution No 2/2011, which established the Energy Efficiency Programme in Public Administration (ECO.AP);
- c) The 2012 Report on the State Building Management Programme (PGPI), drawn up by the Directorate General of Treasury and Finance;
- d) The State Property Information System (SIIE), available at <https://siie.dgtf.pt/> and;
- e) The State Organisation Information System (SIOE), available at <http://www.sioe.dgaep.gov.pt>.

While this report is based on the most up to date information available from the abovementioned sources, as both acquisition and disposal of buildings by the State is ongoing, data presented herein will require review in coming years.

It should also be noted that as this report is based on the data in the abovementioned sources, any inaccuracies therein will impact on the result presented. However, as different sources of information were used, data was cross-referenced to correct any errors and shortcomings.

5. STATE ADMINISTRATION ORGANISATION

As Directive 2012/27/EU employs the concept of ‘Central Government’ to delimit the scope of buildings and as there is no legal definition of this term, it is important to clarify what Portuguese law understands ‘Central Government’ to be.

Traditionally, Central Government has two meanings: the organic meaning and the material meaning. From an organic point of view, Central Government is the system of bodies, services and agents of the State and other public entities which seek to meet collective needs on a regular and ongoing basis. From a material point of view, Central Government is the activity conducted by those bodies, services and agents.

With regard to the subjective or organic meaning, Central Government consists of three large groups of entities: direct and indirect State administration, central and local State administration and autonomous administration. The latter has not been considered.

The first distinction is a result of the classification in Article 199(d) of the Constitution of the Portuguese Republic¹, which does not, however, go into any great detail on either of the concepts. Law No 4/2004 of 15 January 2004², which sets out the principles and rules for the direct organisation of the State, in turn explains that due to the nature of the competences and functions of central and peripheral services, they are subject to Government power and management and are an integral part of direct administration.

The difference between direct and indirect administration is not the purposes of the activity itself, but rather the person undertaking it: in the former, administrative activity is carried out by services which are part of the State as a legal person, while in the latter, activity is carried out by public legal persons which are distinct from the State³.

Therefore, State direct administration entities report to the Government (power and management) and State indirect administration entities are subject to Government oversight and tutelage (orientation, inspection and control).

As mentioned earlier, not all departments in State direct administration have the same territorial powers: central services have power for all national territory while peripheral

¹ *In the exercising of its functions, it is the government's responsibility to: d) Direct the State's direct administration, civil and military activity and services, and oversee and exercise tutelage with regard to indirect and autonomous administration.*

² *Amended by Law No 51/2005 of 30 August 2005, by Decree-Law No 200/2006 of 25 October 2006, by Decree-Law No 105/2007 of 3 April 2007, by Law No 64-A/2008 of 31 December 2008, by Law No 57/2011 of 28 November 2011, by DL No 116/2011 of 5 December 2011 and by Law No 64/2011 of 22 December 2011.*

³ *Cfr. FREITAS DO AMARAL, Diogo, in Course on Administrative Law, Almedina, Vol. I, 3rd edition, page 228.*

services, operating in different places around the country, have their powers limited to specific areas. The former, which include the directorate-generals, are part of Central Government and the latter are part of State local administration, as is the case with regional departments.

In light of the above, buildings which are owned or occupied by indirect administration or peripheral services, including for example, public institutes, public companies, personalised funds, universities, public hospitals and social services have been excluded from the concept of buildings owned and occupied by central government.

6. ALTERNATIVE MEASURES

In accordance with Article 5(6) of the Directive, a non-exhaustive list of identified measures is presented. The aim of these measures is to obtain energy savings which are equivalent to those resulting from the implementation of paragraph 1 of the same Article.

For this purpose, most of the actions to be implemented are a result of the Energy Efficiency Programme in Public Administration (ECO.AP) established by Council of Ministers Resolution No 2/2011 of 12 January which sets out the following measures:

- a) Identification of a local energy manager, who will be responsible for promoting energy efficiency in the different Central Government Entities;
- b) Establishing of energy efficiency contracts for buildings with relevant energy consumption;
- c) Implementation of an energy efficiency action plan so as to promote the efficient use of energy resources.

These wide-ranging actions to promote energy efficiency, together with other policy mechanisms also promoting Central Government efficiency, such as the Plan for the Reduction and Improvement of State Central Administration (PREMAC), will contribute significantly to ensuring compliance with energy savings targets.

The energy efficiency measures to be implemented may be technological (exchanging old equipment for more efficient equipment or installation of energy management systems) or behavioural. They focus on the following areas:

- a) Heating, ventilation and air conditioning (HVAC);
- b) Lighting;
- c) Hot water;
- d) Renewable energies;
- e) Building covering;
- f) Other facilities.

7. REGULATORY FRAMEWORK

In accordance with the provisions of Article 5 of Directive 2012/27/EU, of the European Parliament and of the Council, the energy savings to be obtained, by renovating buildings or through alternative measures are based on minimum energy performance requirements as set out in Article 4 of Directive 2010/31/EU.

Therefore, the provisions of Decree-Law No 118/2013 of 20 August 2013 which sets out requirements for new buildings were taken into consideration. For the purposes of verifying energy savings, standardised usage profiles for different types of buildings were considered. This would provide a standard which could be used as a reference, based on the regulatory requirements of Implementing Order (*Portaria*) No 349-D/2013 of 2 December 2013.

Using as a basis the Energy Efficiency Reference (IEEref) resulting from the application of the abovementioned Decree-Law, and applying standardised usage profiles for buildings, the energy performance of buildings owned and occupied by Central Government was assessed. Based on this assessment, the national aims to reduce energy consumption were established.

The following table presents IEEref values:

Table 3 – Energy Efficiency Reference (IEEref)

Type	IEEref [kWh/m ²]
Offices	120
Libraries	51
Museums and galleries	51
Courts	51
Prisons	68
Schools	51
Health establishments	103
Prisons	68
Theatres	34
Refectories	430
Dormitories	86

Using the above values as a reference, overall savings aims were set through the sum of the differences between the values in table 1 and the energy efficiency references for each of the buildings, using the following formula:

$$\text{Energy saving} = \sum_{i=1}^n (IEE_{ref} - IEE_{edif}) \times A_{up}$$

In which:

IEE_{ref} – Energy Efficiency Reference [kWh/m².year];

IEE_{edif} – The Building's Energy Efficiency Reference [kWh/m². year];

A_{up} – Useful area [m²].

The Energy Efficiency Reference represents the different types of energy consumption in a building, for heating, ventilation, air conditioning, lighting, hot water, etc, thus providing the building's overall level of energy efficiency.

8. INVENTORY OF CENTRAL GOVERNMENT BUILDINGS

Using data primarily provided by the Directorate General of Treasury and Finance available on the State Property Information System, this report is based on 3 562 buildings, as set out in Table 37 of the 2012 PGPI Report:

Table 4 – Number of Central Government Buildings, 2012 PGPI Report

Legal Title	State Direct Administration
Owner	664
Rented	118
Assigned	2 780
Free	2 741
Charged	2
Other	37
TOTAL	3 562

Based on this breakdown, different filters were applied so as to meet the aims set out in Article 5 of the Directive. These filters included:

- a) concept of Central Government as explained in point 5;
- b) heated and/or cooled buildings with useful area over 250 m²;
- c) buildings officially protected as part of a designated environment, or because of their special architectural or historical merit, in so far as compliance with certain minimum energy performance requirements would unacceptably alter their character or appearance;
- d) buildings owned by the armed forces or central government and serving national defence purposes, apart from single living quarters or office buildings for the armed forces and other staff employed by national defence authorities;
- e) buildings used as places of worship and for religious activities.

This resulted in a list of 309 buildings, as follows:

Table 5 – Buildings owned and occupied by central government

Building	Address
129	RUA DOS MARITIMOS, 54, 56 AND 58 - EX-EPAC WAREHOUSE
146	DIRECTORATE-GENERAL OF FISHERIES AND AQUICULTURE – HEAD OFFICE
169	DIRECTORATE-GENERAL OF FISHERIES AND AQUICULTURE – ALGÉS BUILDING
174	DIRECTORATE-GENERAL OF FISHERIES AND AQUICULTURE – HISTORIC ARCHIVE
263	MINISTRY OF FINANCE – CONTEMPORARY ARCHIVE (SGMFAP)
480	GNR-SECRETARY GENERAL OF THE GUARD - PRAZERES-PRAÇA DA ARMADA-HISTORIC ARCHIVE (Q.)
483	GNR-SECRETARY GENERAL OF THE GUARD - LISBON-PRAZERES-RUA DO SACRAMENTO 062.00M04/04-A/05/22/28/40/41 (7 STORAGE)
1001	SEF ALIENS AND BORDERS SERVICE - NATIONAL SIRENE OFFICE
1365	GNR-UAG-INTENDÊNCIA-GRAÇA 040.00/M01 (BARRACKS/STORAGE)
1366	GNR-SECRETARY GENERAL OF THE GUARD –ILLNESS SUPPORT DIVISION (BARRACKS)
1374	GNR-UAF-RESEARCH DEP.; FISCAL TASK FORCE; UAG-PSYCHOLOGICAL CENTRE -BEATO 812.00 (BARRACKS)
1389	GNR-GUARD SCHOOL-QUELUZ 100.00 (BARRACKS)
1395	GNR-GUARD SCHOOL-PORTALEGRE TRAINING CENTRE 130.00 (BARRACKS)
1396	GNR-GUARD SCHOOL-FIGUEIRA DA FOZ TRAINING CENTRE 160.00 (BARRACKS)
1515	PAVILION N.º 25
1723	OFFICE FOR THE PREVENTION AND INVESTIGATION OF LIGHT AIRCRAFT ACCIDENTS -FRAÇÃO G
2210	PSP - BUILDING ON AVENIDA ANTÓNIO AUGUSTO DE AGUIAR - DN
2211	PSP - NATIONAL PSP DIRECTORATE- DN
2574	ANPC HEAD OFFICE
2872	PSP - BUILDING ON RUA - DN
3025	DIRECTORATE-GENERAL OF THE TERRITORY- CENTRAL SERVICES
3041	SANTO ANTONIO HOUSING UNIT
3318	PSP - PSP MUSICAL BAND BUILDING - DN
5138	PSP - CIEXSS BUILDING – SPECIAL UNITS
5140	PSP - BLOCK A SPECIAL OPERATIONS GROUP - SPECIAL UNITS
5199	GNR-GUARD SCHOOL- PORTALEGRE TRAINING CENTRE 130.00 (SHOOTING RANGE)
5267	PSP - PALACETE DA QUINTA DAS ÁGUAS LIVRES - DN
5286	PSP – U SHAPED BUILDING - SPECIAL UNITS
5291	PSP – INSTALLATIONS SECURITY BUILDING - SPECIAL UNITS
5292	PSP – CANINE OPERATIONAL GROUP BUILDING - SPECIAL UNITS
5293	PSP – MESS BUILDING - SPECIAL UNITS
5373	PSP - POLICE PRACTICAL SCHOOL- SPECIAL UNITS
5418	PSP – HIGHER INSTITUTE OF POLICE SCIENCES AND INTERNAL SECURITY- SPECIAL UNITS
5724	AV. 5 DE OUTUBRO, Nº 89, 2º
5740	CAPARIDE CENTRE
5752	DIRECTORATE-GENERAL FOR THE CONSUMER -R/C

6678	RUA DOUTOR ALFREDO MAGALHÃES RAMALHO, N.º 1
8363	PM 050/HORTA – ESPALAMACA POSITION
8382	PM 068/LOURES – CAMARATE MILITARY POST
8766	MINISTRY OF EDUCATION EDITORIAL
9679	EMGFA 03 - AREEIRO FORT (CATALAZETE)
9695	RUA DO SACRAMENTO A ALCANTARA N51- SACRAMENTO CONVENT
10564	DR. ANASTÁCIO GONÇALVES MUSEUM-HOUSE
10580	CERAMICS MUSEUM
10591	DR. JOAQUIM MANSO ETHNOGRAPHIC AND ARCHAEOLOGICAL MUSEUM
10597	MIRANDA MUSEUM – PROPERTY 1
10601	MACHADO DE CASTRO NATIONAL MUSEUM – SOFIA BARRACKS
10621	LAMEGO MUSEUM
10622	SOARES DOS REIS NATIONAL MUSEUM - FERNANDO DE CASTRO MUSEUM-HOUSE - PROPERTY 1
10623	SOARES DOS REIS NATIONAL MUSEUM - FERNANDO DE CASTRO MUSEUM-HOUSE - PROPERTY 2
10634	MUSIC MUSEUM
10635	NATIONAL BLUE TILE MUSEUM
10641	NATIONAL ETHNOLOGY MUSEUM
12106	PSP - FORMER MILITARY HOSPITAL - EPP- SPECIAL UNITS
12702	N3.03.F02.12 RESIDENCE N°18 IN LAPA
12716	N6.02.F02.13 - RESIDENCE N° 30 ON RUA DO FAROL
13162	EMGFA 05 - QG MADEIRA OPERATIONAL COMMAND (1/3)
14719	PM 135/ANGRA DO HEROÍSMO - ERMIDA DA BOA NOVA (FORMER MILITARY HOSPITAL)
14778	PM 003/LAMEGO - ALMACAVE OR SÃO FRANCISCO CONVENT
14785	PM 007/LAMEGO - FORMER ROSSIO BARRACKS SEMINAR
14825	PM 015/VILA REAL – FRACTION A BLOCK B4, ON RUA DE SANTA IRIA
14827	PM 002/VEISEU – FRAGOSELA SHOOTING RANGE
14887	PM 217/LISBON – CEUTA BUILDING
14889	PM 186/LISBON - BUILDING ON RUA DOS REMÉDIOS
14912	PM 010/OEIRAS – HOUSES FOR OFFICERS IN MEDROSA 1/4
14985	PM 064/LISBON – BUILDING ON RUA DE SANTO ANTÓNIO DA SÉ
15299	IDN 001 NATIONAL DEFENCE INSTITUTE
15560	PM 174/LISBON - BUILDING ON CAMPO DE SANTA CLARA, 63
15609	PM 043/LISBON - BUILDING FOR MILITARY COURTS OR MARQUÊS DO LAVRADIO OR CONDE DE AVINTES PALACE
15859	PM 046/LISBON - UNIFORM AND EQUIPMENT GENERAL OFFICES IN CAMPO DE SANTA CLARA
15867	PM 002/AMADORA – AMADORA N.º 2 BARRACKS
15936	PM 216/LISBON - MILITARY FAMILY HEALTH UNIT
15944	PM 071/LISBON – COLEGINHO CONVENT
15947	PM 136/LISBON – ENCARNAÇÃO BARRACKS
15949	PM 081/LISBON - UNIFORM AND EQUIPMENT GENERAL OFFICES IN OUTEIRINHO DA AMENDOEIRA
15966	PM 129/LISBON - TAVARES POST (IN THE ANGLE BETWEEN THE EM/RSSC AND THE TURNING FOR AMEIXOEIRA)
16062	PM 203/LISBON – ARMY CARTOGRAPHIC SERVICES IN ENCARNAÇÃO
16086	PM 008/LISBON - BAIXO DA CALÇADA DA AJUDA BARRACKS

16097	PM 012/LISBOA - CONDE DE LIPE BARRACKS
16116	PM 010/ABRANTES - S.LOURENÇO BARRACKS
16129	PM 175/LISBON - HOUSING BLOCK ON PÇ DR BERNARDINO ANTÓNIO GOMES
16167	PM 001/ANGRA DO HEROISMO - S.JOÃO BATISTA CASTLE, RELVÃO CAMP AND ANGRA DE HEROISMO TC
16172	PM 171/ANGRA DO HEROISMO – STATE HOUSES
16174	PM 165/LISBON - QUINTA DE LAFÕES MILITARY MAINTENANCE
16176	PM 172/ANGRA DO HEROISMO - 2º ANDAR (DTº AND ESQº) IN THE BUILDING ON PCT G.COUTINHO E S.CABRAL, 22
16182	PM 007/AVEIRO – SÁ BARRACKS
16187	PM 012/AVEIRO - S.JACINTO MILITARY INSTALLATIONS
16232	PM 058/LISBON - CAMPO DE OURIQUE BARRACKS
16250	PM 006/BEJA - VALE DO AGUILHÃO BARRACKS
16256	PM 050/LISBON - FUNDIÇÃO DE CANHÕES
16258	PM 011/BEJA - CABEÇA DE FERRO TACTICAL AND TECHNICAL AND TC TRAINING CAMP
16261	PM 007/BRAGA - CARVALHEIRAS CAMP OR BARRACKS
16263	PM 049/LISBON - SANTA CLARA MILITARY FACTORY
16275	PM 011/BRAGA – AREAL BARRACKS
16276	PM 048/LISBON - FUNDIÇÃO DE BAIXO
16282	PM 019/BRAGA - BUILDING ON RUA BERNARDO SEQUEIRA,Nº.247
16285	PM 003/CALDAS DA RAINHA - CASAIS DE PEDRÓGÃO BARRACKS
16334	PM 005/CASCAIS - PAREDE BATTERY AND EASEMENT
16370	PM 021/LISBON - MILITARY MAINTENANCE ON RUA DO GRILO NORTH WING
16443	PM 047/CHAVES - ALTO DA TRINDADE BARRACKS
16445	PM 032/LISBON - ARMY PUPILS MILITARY INSTITUTE, ESTRADA DE BENFICA
16446	PM 034/LISBON - LUZ BARRACKS - ANNEX TO MILITARY COLLEGE
16448	PM 005/COIMBRA – JESUITS HOUSE
16451	PM 006/COIMBRA - URSULINAS CONVENT
16452	PM 010/COIMBRA - MM BRANCH ON RUA OLÍMPIO NICOLAU FERNANDES
16476	PM 014/COIMBRA – SANTANA BARRACKS
16479	PM 007/LISBON - BELÉM MILITARY HOSPITAL
16481	PM 001/CONSTÂNCIA - SANTA MARGARIDA TRAINING CAMP
16507	PM 036/LISBON – PONTINHA BARRACKS
16509	PM 078/ELVAS - S.DOMINGOS CONVENT OR BARRACKS
16510	PM 079/ELVAS – CAVALARIA BARRACKS
16511	PM 082/ELVAS – CALVÁRIO BARRACKS
16512	PM 135/LISBON - ENCARNAÇÃO MILITARY LABORATORY
16515	PM 003/ENTRONCAMENTO - MATERIAL MAINTENANCE DIVISION COMPANY BARRACKS
16518	PM 008/ENTRONCAMENTO - MM BRANCH
16520	PM 009/ENTRONCAMENTO RAILWAY FIRE FIGHTERS BATTALION BARRACKS
16536	PM 016/ENTRONCAMENTO – HOUSING BLOCK ON RUA CIDADE DE PENAFIEL, 31
16540	

	PM 017/ENTRONCAMENTO - HOUSING BLOCK ON RUA G DA URBANIZAÇÃO DO CASAL SALDANHA
16547	PM 001/AMADORA - AMADORA BARRACKS Nº 1 OR FORMER AERODROME
16548	PM 003/ESPINHO – ESPINHO AVIATION CAMP OR BARRACKS
16549	PM 008/ESPINHO - HOUSING BLOCKS Nº 1 AND 2, IN THE PARISH OF ANTA
16581	PM 028/ESTREMOZ – TELHEIROS BARRACKS
16584	PM 029/ESTREMOZ - S.JOÃO DE DEUS CONVENT (FORMER HOSPITAL)
16592	PM 037/ESTREMOZ - ROSSIO OR BRIGADA BARRACKS
16613	PM 089/LISBON - PÁTIO DAS ZEBRAS – STATE WAREHOUSES AND HOUSES
16618	PM 020/ÉVORA - MM BRANCH
16629	PM 015/FARO - BUILDING ON RUA VENTURA COELHO, 31 AND 33 AND INFANTE D.HENRIQUE, 67, 69 AND 71
16636	PM 008/FIGUEIRA DA FOZ – LAPA BARRACKS
16642	PM 056/FUNCHAL - QUINTA DO DEÃO BUILDING
16643	PM 059/FUNCHAL - BUILDING ON RUA DA CARREIRA, 153 AND 155
16644	PM 010/FUNCHAL - PICO DA CRUZ BATTERY
16646	PM 021/FUNCHAL - S.LOURENÇO FORT
16652	PM 026/FUNCHAL – NAZARÉ BARRACKS
16669	PM 024/HORTA - REGIMENTAL INFIRMARY- (FORMER Nª Sª DO LIVRAMENTO CONVENT
16678	PM 011/LAGOS - S.GONÇALO BARRACKS
16684	PM 022/LAGOS - LAGOS OFFICERS' MESS IN THE GRAÇA CONVENT
16685	PM 024/LAGOS – MAIN GUARD'S HOUSE - (FORMER SLAVES MARKET)
16686	PM 010/LEIRIA - CRUZ DA AREIA BARRACKS
16688	PM 001/LAMEGO - SANTA CRUZ BARRACKS
16689	PM 137/LISBON - S.DOMINGOS DE BENFICA INSTITUTE
16690	PM 164/LISBON - MILITARY MAINTENANCE ON RUA DO GRILLO SOUTH WING
16691	PM 014/LEIRIA - PLOTS 71 AND 72 ON URBANIZAÇÃO QUINTA DA MATINHA
16701	PM 002/MEALHADA – BUÇACO MILITARY MUSEUM
16709	PM 009/LISBON - PÁTIO DA NORA
17913	PM 007/OEIRAS - S.GONÇALO BATTERY, FORT OR AMMUNITION STORE, EASEMENT AND ATTACHED LAND
17916	PM 018/OEIRAS - PAÇO DE ARCOS BARRACKS
17922	PM 031/OEIRAS – SERGEANTS' HOUSES IN ESPARGAL
17926	PM 086/OEIRAS – OFFICER'S HOUSE IN ESPARGAL
17932	PM 089/OEIRAS – CAXIAS OFFICERS' MESS
17937	PM 096/OEIRAS - MM BRANCH IN CAXIAS
17938	PM 006/PORTO – PORTO OFFICERS' MESS
17962	PM 002/PENAFIEL – PENAFIEL BARRACKS
17969	PM 001/PONTA DELGADA - S.BRÁS FORT
17975	PM 011/PORTO - TREM DO OURO - (MM BRANCH)
17985	PM 013/PORTO - UNIFORM AND EQUIPMENT GENERAL OFFICES

17988	PM 020/PONTA DELGADA - PONTA DELGADA MILITARY AMMUNITION STORE
18133	PM 053/PONTA DELGADA - FRACCÃO F - 2º ANDAR ESQº - IN THE BUILDING ON RUA DAS LARANJEIRAS, 2
18143	PM 021/PORTO - SÃO BRÁS BARRACKS
18144	PM 014/PORTO - SANTO OVÍDIO BARRACKS
18145	PM 056/PONTA DELGADA - S.GONÇALO HOUSING BLOCKS
18146	PM 017/PORTO - LORDELO DO OURO HOUSE
18147	PM 041/PONTA DELGADA – ARRIFES BARRACKS
18149	PM 042/PONTA DELGADA - S.GONÇALO BARRACKS
18152	PM 046/PONTA DELGADA - SOLAR DE SANTA CATARINA
18154	PM 022/PORTO – VISO BARRACKS
18165	PM 023/PORTO - VISO BARRACKS ANNEX
18166	PM 049/PONTA DELGADA - BUILDING ON RUA DIREITA, 69, IN FAJÁ DE BAIXO
18172	PM 051/PONTA DELGADA – INTER ISLAND RESIDENCE
18184	PM 047/PORTO - BUILDING ON AVENIDA DE FRANÇA
18187	PM 006/PÓVOA DO VARZIM – PÓVOA BARRACKS
18190	PM 048/PORTO - BUILDING ON AV. FERNANDO DE MAGALHÃES
18193	PM 008/PÓVOA DO VARZIM – PAREDES BARRACKS
18200	PM 025/SETÚBAL - BUILDING ON PRAÇA DO BOCAGE
18205	PM 024/SINTRA - SERRA DA CARREGUEIRA SHOOTING RANGE
18216	PM 005/TAVIRA - RESIDENTIAL BLOCK FOR SERGEANTS ON THE ATALÁIA CAMP
18219	PM 006/TAVIRA – OLARIAS BARRACKS
18222	PM 007/TAVIRA – ATALAIA BARRACKS
18242	PM 011/TOMAR – ALVITO BARRACKS
18258	PM 018/TOMAR - CASA DE RECLUSÃO DE TOMAR - (SEPARATE FROM PM11)
18263	PM 001/TORRES NOVAS - FORMER HOSPITAL BUILDING
18271	PM 002/TORRES NOVAS - TORRES NOVAS BARRACKS, INCLUDES SHOOTING RANGE
18297	PM 007/VENDAS NOVAS - RUA DA ESTAÇÃO BARRACKS
18305	PM 001/VILA NOVA DA BARQUINHA - POLÍGONO DE TANCOS - ETAT 1/62
18433	EMGFA 15 - LARANJEIRAS BUILDING - RUA DAS LARANJEIRAS Nº 2 R/C DTO - PONTA DELGADA
18434	EMGFA 16 - LARANJEIRAS BUILDING - RUA DAS LARANJEIRAS Nº 2 R/C ESQ. - PONTA DELGADA
18435	EMGFA 17 - LARANJEIRAS BUILDING - RUA DAS LARANJEIRAS Nº 2 - 1º DTO - PONTA DELGADA
18436	EMGFA 18 - LARANJEIRAS BUILDING - RUA DAS LARANJEIRAS Nº 2 - 1º ESQ - PONTA DELGADA
18437	EMGFA 19 - LARANJEIRAS BUILDING - RUA DAS LARANJEIRAS Nº2 - 2º ESQ - PONTA DELGADA
18438	EMGFA 20 - LARANJEIRAS BUILDING - RUA DAS LARANJEIRAS Nº 2 - 3º ESQ - PONTA DELGADA
18590	PM 001/AVEIRO - ESGUEIRA ¼ SHOOTING RANGE
18633	PM 029/LISBON - SALÉSIAS OR TERRAS DO DESEMBARGADOR CAMP 1/21

18641	PM 042/LISBON - SAPADORES OR CRUZ DOS 4 CAMINHOS BARRACKS 1/16
18655	EMGFA 36 - LIVARAMENTO HOUSE – 1 ST FLOOR
18661	PM 009/OEIRAS - MEDROSA BARRACKS 1/17
18743	PM 001/ALMADA - RAPOSEIRA BATTERY 1/5
18745	PM 019/ALMADA - RAPOSA BATTERY 1/13
18753	PM 006/ESPINHO – CONSTRUCTIONS ON THE BEACH1/6
18774	PM 005/LAMEGO - PENUDE SHOOTING RANGE1/4
18776	PM 006/LAMEGO - CRUZ ALTA OR PORTAS BARRACKS 1/7
18777	PM 027/ÉVORA - INSTALAÇÕES DA AVENIDA BARAHONA
18793	PM 005/PORTALEGRE - S.BERNARDO BARRACKS
18795	PM 021/HORTA - CARMO BARRACKS - (FORMER CONVENT)
18796	PM 013/FUNCHAL - S.MARTINHO BATTERY
18806	PM 011/LISBON - CIMA DA CALÇADA DA AJUDA BARRACKS 1/17
18817	PM 158/LISBON - VILALVA OR S.SEBASTIÃO DA PEDREIRA PALACE
18819	PM 057/MAFRA - HOUSING BLOCK Nº 6 ON URBANIZAÇÃO DO PINHEIRO
18821	PM 058/MAFRA - HOUSING BLOCK Nº 7, ON URBANIZAÇÃO DO PINHEIRO
18822	PM 059/MAFRA - HOUSING BLOCK Nº 8, ON URBANIZAÇÃO DO PINHEIRO
18823	PM 060/MAFRA - HOUSING BLOCK Nº 10, ON URBANIZAÇÃO DO PINHEIRO
18824	PM 061/MAFRA - HOUSING BLOCK Nº 9, ON URBANIZAÇÃO DO PINHEIRO
18825	PM 062/MAFRA - HOUSING BLOCK Nº 11, ON URBANIZAÇÃO DO PINHEIRO
18827	PM 063/MAFRA - QUINTA DA VELA OR DO BOM SUCESSO
18829	PM 006/SESIMBRA - MARCO DO GRILO AMMUNITION STORES
18830	PM 007/VILA NOVA DE GAIA - SERRA DO PILAR BARRACKS AND MANOEUVRES CAMP
18835	PM 013/VILA REAL – BORRALHA BARRACKS
18852	PM 049/PORTO - BUILDING ON LARGO SOARES DOS REIS, 23, 25 AND RUA DO HEROISMO, 327 AND 329
18893	PM 013/ISEU – VIRIATOS BARRACKS
19792	PM 006/LAMEGO - CRUZ ALTA OR PORTAS BARRACKS 4/7
19794	BAIRRO SANTA MARIA, URMEIRA PAIÁ PONTINHA - LARGO DO POSTO MÉDICO – PUBLIC BUILDING
20110	PM 006/LAMEGO - CRUZ ALTA OR PORTAS BARRACKS 5/7
20506	PM 006/LAMEGO - CRUZ ALTA OR PORTAS BARRACKS 2/7
20507	PM 006/LAMEGO - CRUZ ALTA OR PORTAS BARRACKS 3/7
20508	PM 006/LAMEGO - CRUZ ALTA OR PORTAS BARRACKS 6/7
20509	PM 006/LAMEGO - CRUZ ALTA OR PORTAS BARRACKS 7/7
20586	PM 040/LISBON – ESTRELA CONVENT OUTER RING
21266	N5.02.M02.11 - BOA-NOVA NAVAL INSTALLATIONS
21325	C4.03.M01.11 - REDUTO GOMES FREIRE (JC LISBON, NATO)
21327	C4.04.F01.11 – DIRECTORATE OF LIGHTHOUSES, CONSISTING OF 4 BUILDINGS
21335	C4.06.M02.11 - VASCO DA GAMA AQUARIUM IN ALGÉS (CONSISTING OF 4 BUILDINGS)
21336	C4.09.M02.11 - CALOUSTE GULBENKIAN PLANETARIUM, CONSISTING

	OF 1 BUILDING.
21339	C4.09.M03.11 – NAVY MUSEUM, CONSISTING OF 5 BUILDINGS.
21340	C4.09.M04.11 – NAVY CENTRAL LIBRARY, CONSISTING OF 1 BUILDING.
21341	C4.10.M01.11 – HIGHER NAVAL INSTITUTE OF WAR, CONSISTING OF 1 BUILDING.
21342	C4.10.M02.11 - EXTENSION OF THE NAVY MUSEUM (EX- F.N.C. CONSISTING OF 3 BUILDINGS.
21344	C4.07.M01.11 - CCDCM MONSANTO CENTRE, CONSISTING OF 17 BUILDINGS
21353	C4.12.M06.11 - NAVY HOSPITAL - CONSISTING OF 2 BUILDINGS.
21354	C4.11.M02.11 - ALCANTARA NAVY INSTALLATIONS - CONSISTING OF 9 BUILDINGS
21413	PM 001/VILA NOVA DA BARQUINHA - POLÍGONO DE TANCOS
21433	C5.03.M01.11 - AZINHEIRA NAVY INSTALLATIONS - CONSISTING OF 20 BUILDINGS
21573	A1.01.M09.11 - PRE-FABRICATED CONSTRUCTIONS IN BAIRRO DAS LARANJEIRAS - CONSISTING OF 2 BUILDINGS
21576	A1.01.M08.11 - LORETO OFFICERS' MESS - CONSISTING OF 4 BUILDINGS
21587	A1.01.M09.14 - HOUSING BLOCK ON RUA DO PAIOL (LOTE B) - CONSISTING OF 1 BUILDING
21616	A1.01.F17.11 ESTRADINHO INSTALLATIONS IN PONTA DELGADA CONSISTING OF 4 BUILDINGS
21617	A1.02.M01.11 RADIO STATION-NAVAL CENTRAL TX IN PONTA DELGADA - CONSISTING OF 3 BUILDINGS
21638	A4.01.F04.11 PRE-FABRICATED RESIDENCES, CONSISTING OF 4 BUILDINGS.
21640	A4.01.M05.11 CONTROL POST, CONSISTING OF 5 BUILDINGS.
21824	C5.13.N01.11
21835	C4.12.M01.11 HYDROGRAPHICAL INSTITUTE
21971	PSP – INTERVENTION WING - AJUDA - SPECIAL UNITS
23732	FA«»CA«»UI-100«» AIR COMMAND
23733	FA«»CRFA«»UI-111«» AV. GAGO COUTINHO MILITARY RECRUITMENT CENTRE
23734	FA«»BA1«»UI-121«»AIR BASE N.º 1 (INCL. AFA AND IAEFA)
23735	FA«»CFMTFA«»UI-122«»AIR FORCE MILITARY AND TECHNICAL TRAINING CENTRE (EX-BA2)
23736	FA«»BA4«»UI-124«»AIR BASE N.º 4
23737	FA«»BA5«»UI-125«»AIR BASE N.º 5
23739	FA«»BA6«»UI-126«»AIR BASE N.º 6
23740	FA«»BA11«»UI-131«»AIR BASE N.º 11
23741	FA«»EMFA«»UI-138«»AIR FORCE MILITARY STAFF
23742	FA«»AT1«»UI-141 «»TRANSIT AERODROME N.º 1
23743	FA«»AM1«»UI-144 «»MANOEUVRE AERODROME N.º 1
23746	FA«»DGMFA«»UI-160«»AIR FORCE GENERAL MATERIAL DEPOT
23747	FA«»CZAA«»UI-535«»RECEPTORS CENTRE
23750	FA«»BA6«»UI-483«»PENAMACOR SHOOTING RANGE
23757	FA«»BALUM«»UI-181«»LUMIAR BASE
23758	FA«»CT«»UI-189«»SHOOTING RANGE
23760	FA«»CA«»UI-303«»MOINHO DO ALFERES

23768	FA«»CME«»UI-432«»ARRÁBIDA INSTALLATIONS
23770	FA«»CME«»UI-431«»CHORAFOME INSTALLATIONS
23772	FA«»CME«»UI-433«»JOÃO MENDES INSTALLATIONS
23774	FA«»CME«»UI-436«»S. MAMEDE INSTALLATIONS
23775	FA«»CME«»UI-434«»CERCAL INSTALLATIONS
23776	FA«»BA5«»UI-452«»COIMBRÃO 1 INSTALLATIONS
23780	FA«»BA5«»UI-456«»CARVIDE INSTALLATIONS
23781	FA«»BA5«»UI-457«»TREVIM INSTALLATIONS
23782	FA«»AM3«»UI-674 «»RESIDENTIAL ZONE
23783	FA«»BA5«»UI-459«»HOUSING BLOCKS
23784	FA«»CME«»UI-435«»CANDEEIROS INSTALLATIONS
23785	FA«»CZAA«»UI-502«»BEIRA-MAR AREA (AMERICAN AREA)
23796	FA«»CZAA«»UI-549 «»FORMER G.D.A.C.I.
23803	FA«»CZAA«»UI-518«»SERGEANTS' CLUB
23804	FA«»CZAA«»UI-519«»OFFICERS' CLUB
23814	FA«»AM1 «»UI-630«»MONTE ALTO INSTALLATIONS
23816	FA«»AM1 «»UI-642«»OVAR POL OFF BASE
23818	FA«»AM1 «»UI-644«»OVAR DF
23819	FA«»AM1 «»UI-629«»S. PEDRO O VELHO INSTALLATIONS
23822	FA«»CZAA«»UI-558«»TERRA CHÃ EX-MILITARY HOSPITAL
23832	FA«»BA11 «»UI-582«»BEJA RESIDENTIAL AREA
23837	FA«»ER1 «»UI-702«»MONCHIQUE RESIDENTIAL AREA
23839	FA«»AM3«»UI-671 «»ADMINISTRATION ZONE
23840	FA«»AM3«»UI-676«»POL 1 ZONE
23841	FA«»AM3«»UI-677«»POL 2 ZONE
23842	FA«»DGMFA«»UI-691«»COMMANDER'S HOUSE
23843	FA«»ER1 «»UI-703«»VALINHOS INSTALLATIONS
23845	FA«»DGMFA«»UI-692«»HOUSE IN BAIRRO DAS OGMA
23848	FA«»ER3«»UI-602«»HOUSES
23870	FA«»ER2«»UI-627«»FONTE DO ERMITÃO
23873	FA«»BA5«»UI-453«»COIMBRÃO 2 INSTALLATIONS
23899	FA«»EMFA«»UI-312«»SERRA DA ESTRELA INSTALLATIONS
23900	FA«»BA1 «»UI-414«»FUNCHAL INSTALLATIONS
24042	C5.05.M10.11 ALFEITE NAVAL INSTALLATIONS
24102	C4.07.M02.11 RADIO STATION-NAVY COMMANDER NUNES RIBEIRO (RX)
24132	C5.02.M01.11 FUSILIERS SCHOOL (VALE ZEBRO MILITARY INSTALLATIONS)
24154	A9.02.M02.11 LORAN DAS FLORES EX. STATION
25127	DIRECTORATE-GENERAL FOR THE CONSUMER – FRACTION D
25128	DIRECTORATE-GENERAL FOR THE CONSUMER - FRACTION E
25129	DIRECTORATE-GENERAL FOR THE CONSUMER - FRACTION F
25130	DIRECTORATE-GENERAL FOR THE CONSUMER - FRACTION H
25513	GNR - UAG - TRANSPORT COMPANY
25641	GENERAL INSPECTORATE OF HEALTH ACTIVITIES HEAD OFFICE

It is important to note the high number of Military Buildings (PM) in this list. Many of them may be removed from the list should it be decided to include them in any of the exclusion situations set out in Article 5(1) and (2) of the Directive. In light of the confidentiality with regard to a significant number of these buildings, it was not possible in the time available to determine their exact use with any accuracy. The only buildings not considered were those for which it was possible to determine use with any degree of certainty.

9. CALCULATION OF ENERGY SAVINGS

By using the formula in point 7, it was possible to calculate energy savings of 634 MWh in Central Government buildings.

As mentioned earlier, there is limited use of climate control or other systems in the majority of public buildings, resulting in:

- a) No central climate control systems are installed;
- b) Mild climate in national territory for part of the year;
- c) Budget constraints leading to more rational and restricted use of existing systems.

As such, there has been a reduction in specific and overall consumption of energy in buildings. This means that any possible measures to improve energy efficiency are no longer economically viable.

Given the limitations described above, and the impact that a new cycle of economic growth may have on the evolution of energy consumption, it is expected that the energy savings values presented above may be periodically reviewed and adjusted so as to reflect the evolution in the energy performance of buildings owned and occupied by central government.

It is also important to safeguard possible impacts resulting from programmes to restructure public administration, as well as from day-to-day management which could involve new acquisitions or disposals, thus changing the number of central government buildings and the respective energy savings targets.

It is also important to note that it is expected that the implementation of the ECO.AP Programme may bring about energy savings which are far greater than those presented above, given that this programme uses a series of tools and methodologies allowing it to be applied throughout most public buildings. It will implement programmes for significant modernisation work in buildings as well as simple measures to change behaviour.

It should be further noted that, in situations where a degree of doubt exists as regards usage, the lowest type of IEE was chosen, thus increasing the efficiency requirements of the buildings in the list.