









Spanish Energy Efficiency Fund

Case Study: funding programme on street lightning

19th march 2019
CA-EED 2 PM Helsinki

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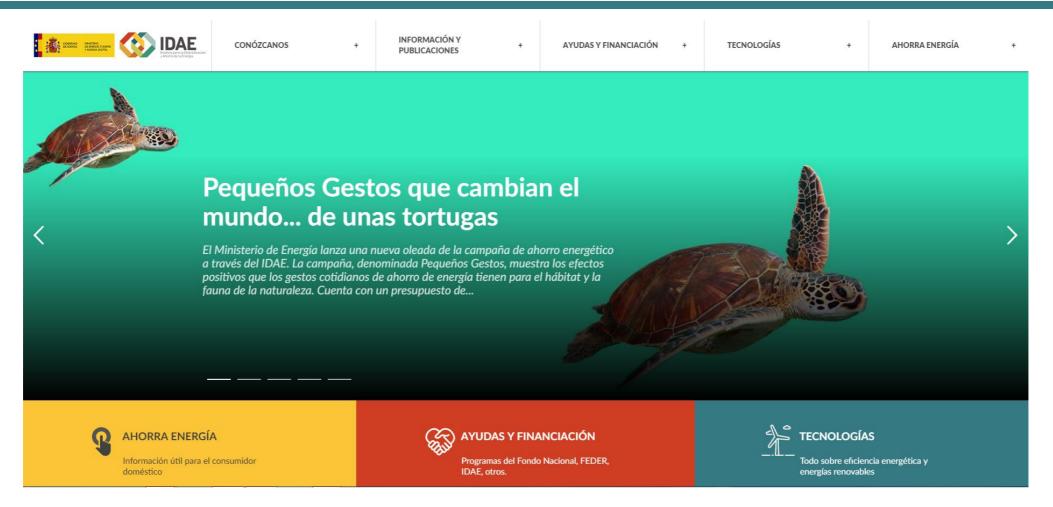
Project manager Regulatory framework and corporate strategy Department











What is IDAE?

Public corporate entity assigned to the Ministry of Ecological Transition through the Secreaty of State for Energy.

Mission

- Promote energy efficiency and a reasonable use of energy in Spain.
- Promote energy diversification and a growing use of renewable energies.
- Drive these activities through technical assessment and launching demonstrative projects with an innovative nature.





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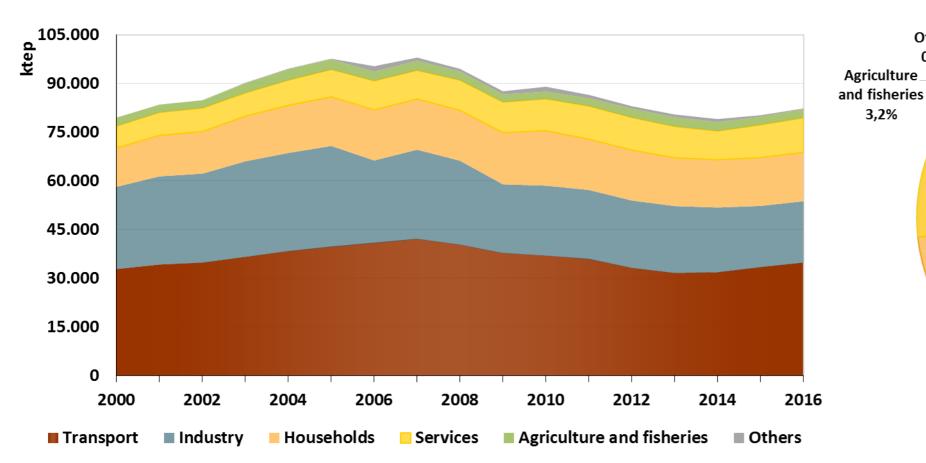
1 Energy framework in Spain

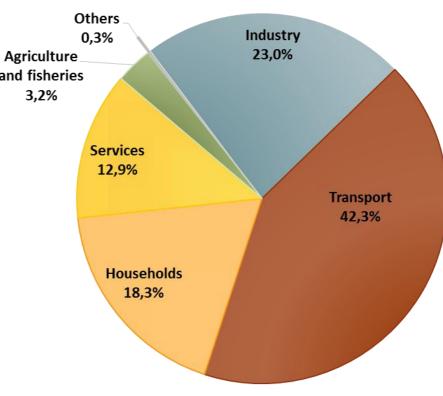
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FINAL ENERGY DEMAND EVOLUTION BY SECTOR 2000-2016





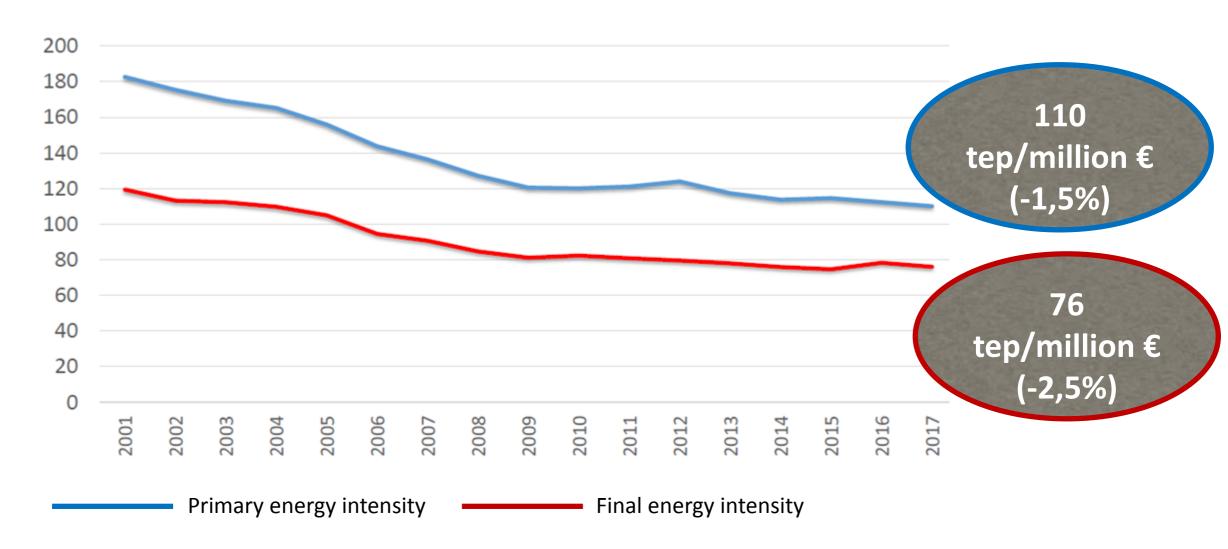
Source: MITECO/IDAE. Note: non-energy uses excluded





PRIMARY AND FINAL ENERGY INTENSITY INDICATORS

> Continuous improvement of both primary and final energy intensity in 2017 vs 2016



Source: First provisional energy balance

2017 -march 2018- Ministry for the

Ecological Transition.

GDP: Source INE first estimation.





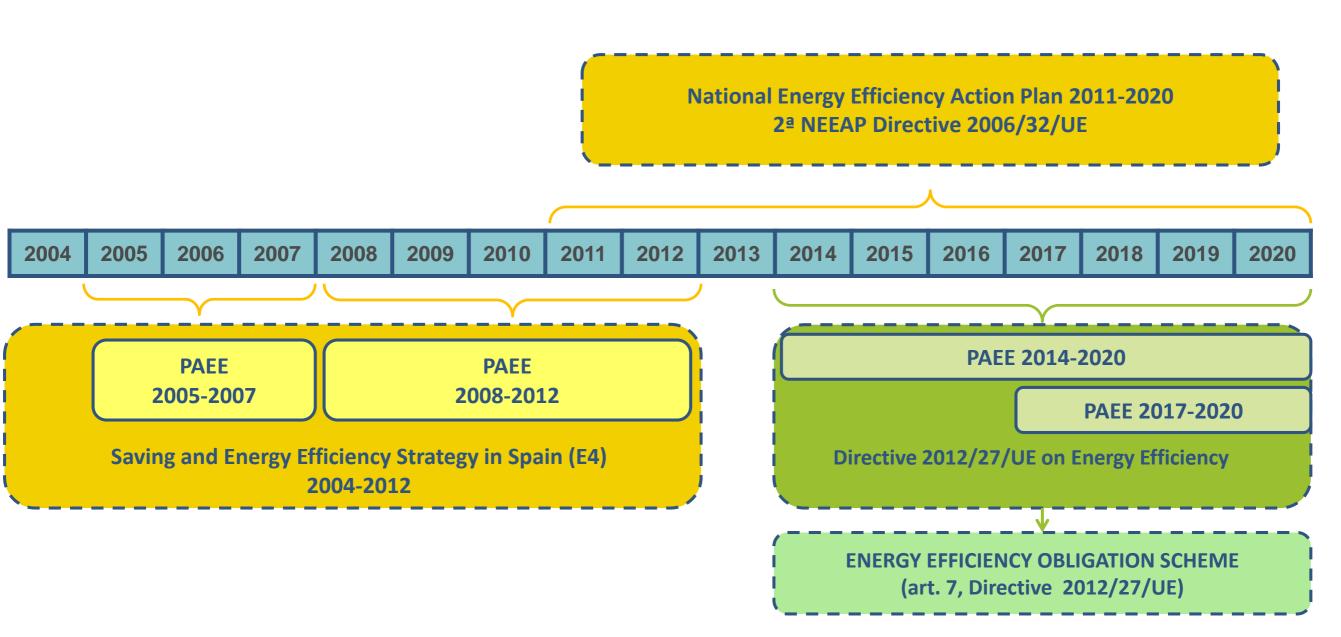
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OVERVIEW OF ENERGY EFFICIENCY PLANNING IN SPAIN



See: http://ec.europa.eu/energy/efficiency/eed/eed_en.htm



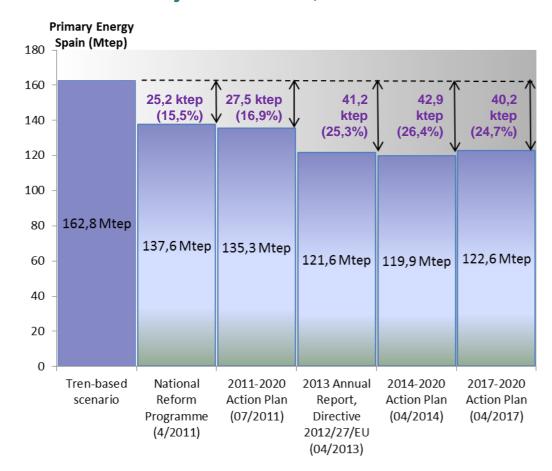


ENERGY EFFICIENCY TARGETS IN SPAIN (2020)

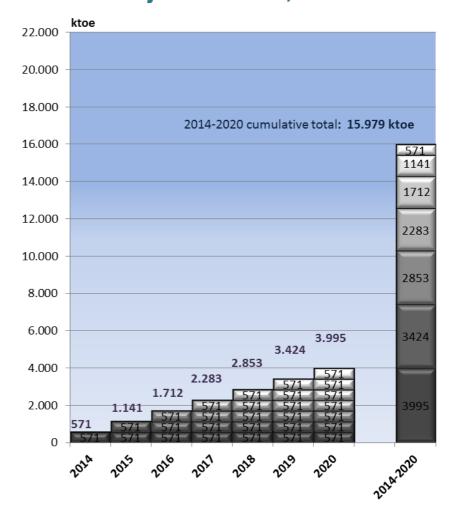
DOUBLE OBJECTIVE:

- 1: Primary energy consumption by 2020 of 122,6 Mtoe (art. 3, DEE).
- 2: Cumulative total final energy savings of 15,979 ktoe, between 2014 and 2020, equivalent to 571 ktoe new and additional savings gained annually —a linear distribution is assumed— (art. 7, DEE).

Objective art. 3, EED



Objective art. 7, EED







Mechanisms to comply with article 7 objective

ENERGY EFFICIENCY OBLIGATION SCHEME (Law 18/2014, October 15th)

An obligation of savings has been set up on the energy distributors and retail energy sales companies (obligated parties).

- NATIONAL ENERGY EFFICIENCY FUND (Law 18/2014, October 15th)
 - a) Set up according to art. 20 EED.
 - b) Obligated parties can comply with their saving obligation by means of a contribution to the Fund with an amount which is calculated taking into account the investments requeried to achieve their respective obligation.
- EUROPEAN STRUCTURAL FUNDS (Low Carbon Economy)
- FISCAL MEASURES
- COMMUNICATION, TRAINING AND INFORMATION MEASURES





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ENERGY EFFICIENCY TARGETS

R.D. 56/2016
ENERGY
EFFICIENCY
AUDITS, ENERGY
MANAGEMENT
SYSTEMS

RETROFITTING OF BUILDINGS' STOCK

AGE

ENERGY SAVINGS OBLIGATION

ENERGY EFFICIENCY OBLIGATION SCHEME

ALTERNATIVE MEASURES





Energy efficiency obligation scheme

(Law 18/2014, October 15th, for the adoption of urgent measures for growth, competitiveness and efficiency)

Obligated parties:

Energy companies of gas and electricity and oil products and LPG retailers.

How is the annual obligation of energy savings calculated:

Through the objective assigned by article 7 of the 2012/27/EU Directive to Spain, after deducting savings derived from the alternative measures referred to in article 7.9.

How is the annual savings obligation distributed among the different obligated parties:

Proportionally to the volume of sales to final energy consumers.





Energy efficiency obligation scheme

(Law 18/2014, October 15th, for the adoption of urgent measures for growth, competitiveness and efficiency)

How can it be fulfilled the energy savings obligations?

Obligated parties should contribute annually to the Energy Efficiency National Fund (4 equal payments) prior to the 31/03, 30/06, 30/09 and 31/12.

This financial contribution will be the result of multiplying the obligation of annual savings by the financial equivalence established by ministerial order (0,79 M€/ktoe).

Alternatively, by means of a decree, the Government could establish a mechanism for accreditation of savings through energy savings certificates (white certificates).





Energy Efficiency National Fund

(Law 18/2014, October 15th, for the adoption of urgent measures for growth, competitiveness and efficiency)

The Fund will be devoted to financing mechanisms of economic, financial, technical assistance, training or other measures, in such a way to attain the national energy target set according to article 7 of EED.

Duration of the Fund would be, at least, from 2014 to 2020.

Organization, management and control:

- The Fund is attached to the Ministry for Ecological Transition, through the Secretariat of State for Energy.
- The management of the Fund will be a responsability of IDAE.
- The supervision and control of the Fund will be a responsability of a Committee for monitoring and control, which is created by law.

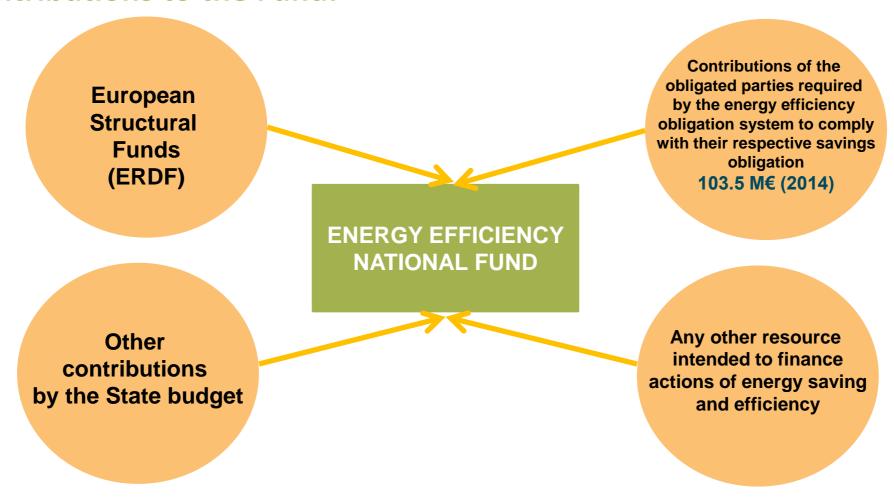




Energy Efficiency National Fund

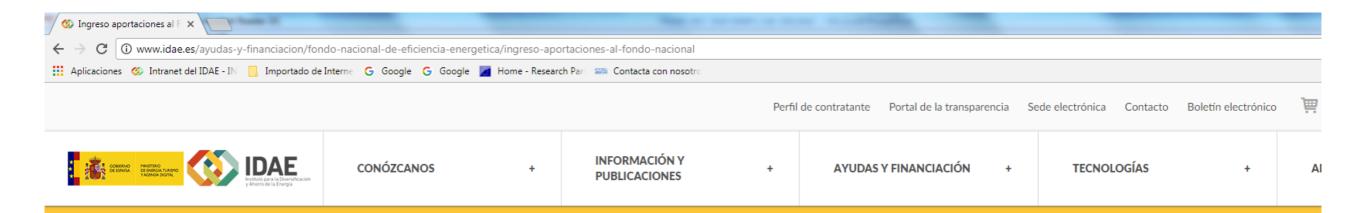
(Law 18/2014, October 15th, for the adoption of urgent measures for growth, competitiveness and efficiency)

Financial contributions to the Fund:









 $Inicio \cdot Ayudas\ y\ financiación \cdot Fondo\ Nacional\ de\ Eficiencia\ Energ\'etica \cdot Ingreso\ aportaciones\ al\ Fondo\ Nacional\ de\ Eficiencia\ Energ\'etica$

INGRESO APORTACIONES AL FONDO NACIONAL DE EFICIENCIA ENERGÉTICA

Ingreso aportaciones 2017 al Fondo Nacional de Eficiencia Energética



De conformidad con lo establecido en la Ley 18/2014 de 15 de Octubre, de aprobación de medidas urgentes para el crecimiento, la competitividad y la eficiencia y en la Orden ETU/258/2017, de 24 de marzo por la que se establecen las obligaciones de aportación al Fondo Nacional de Eficiencia Energética en el año 2017 podrán hacer efectivas sus contribuciones financieras anuales a dicho Fondo, en el número de cuenta corriente habilitada para tal fin y que se detalla a continuación:

Denominación cuenta: Fondo Nacional de Eficiencia Energética

Entidad Financiera: Banco de Santander

N° Cuenta Corriente: ES58 0049 1811 3721 1048 0210

Para mejor identificación del pago realizado, rogamos ajusten la denominación del sujeto obligado que realiza la aportación a la denominación que figura literalmente en el Anexo enteriormento detallado. Ve caso de ser posible romitan conia del pago realizado mediante

Ingreso aportaciones 2016 al Fondo Nacional de Eficiencia Energética.

Contenido relacionado

Programa de ayudas PYME y gran empresa sector industrial

Programa de ayudas para la renovación de las instalaciones de alumbrado exterior municipal

Programa de ayudas para actuaciones de





Orden ETU/257/2018, 16th March 2018 (obligations 2018)

Economic equivalence to saving obligation in 2018

Sales 2016 % Sales 2016 Savings obligation (without 2017 adjustment) (€)

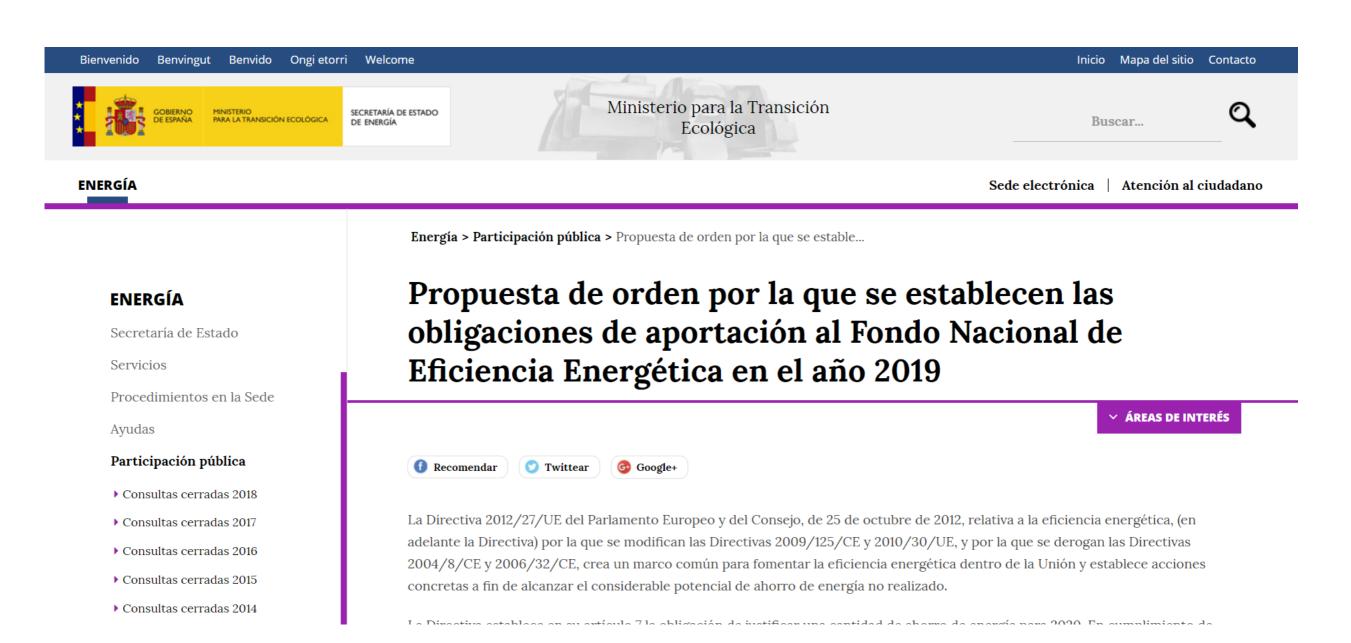
			(GWh)			(GWh			
Tipo sujeto	CIF	OBS	Razón social	Ventas 2016 (GWh)	Porcentaje de ventas	Obligación de ahorro (GWh)	Importe económico equivalente a la obligación de ahorro 2018 sin ajustes 2017 Euros	Ajustes 2017	Importe económico equivalente a la obligación de ahorro 2018 con ajustes 2017 Euros
рр	B55249858	1,3	2001 INTERMEDIACIÓN PETRÓLEO GIRONA, S.L.	5,167023	0,000007	0,019638	1.333,73	0,00	1.333,73
ee	B87177408		ABOUT WHITE, S.L.	0,004024	0,000000	0,000015	1,04	0,03	1,06
ee	B93358513		A C C I Ó N E N E R G Í A COMERCIALIZADORA, S.L.	1,147000	0,000001	0,004359	296,07	0,05	296,11
ee	B31737422		ACCIONA GREEN ENERGY DEVELOPMENTS, S.L.	4.872,179269	0,006139	18,517208	1.257.625,43	3.221,01	1.260.846,44
ee	A87623971	1	ACSOL ENERGÍA GLOBAL, S.A.	115,000000	0,000145	0,437069	29.684,24		29.684,24
ee	B25794207		ADEINNOVA ENERGÍA, S.L.U.	30,633328	0,000039	0,116425	7.907,19	5,28	7.912,47
ee+g	B26500231		ADELFAS ENERGIA, S.L.	13,349000	0,000017	0,050734	3.445,69	5,66	3.451,36
pp	B87186169	2	ADITIVOS BIOENERGÉTICOS, S.L.	0,000000	0,000000	0,000000	0,00		0,00
ee+g	B25687401		A-DOS ENERGÍA, S.L.	110,734200	0,000140	0,420856	28.583,13	10,34	28.593,47
ee+g	B66162421		ADS ENERGY 8,0, S.L.	229,610000	0,000289	0,872656	59.267,81	35,54	59.303,34
ee	B09378720		ADURIZ ENERGÍA, S.L.U.	25,811960	0,000033	0,098101	6.662,68	12,88	6.675,56
ee+g	A62943600		AGENTE DEL MERCADO ELÉCTRICO, S.A.	195,672000	0,000247	0,743671	50.507,60	221,36	50.728,96
ee	A17000837		AGRI-ENERGÍA, S.A.	92,460000	0,000116	0,351404	23.866,13	80,13	23.946,25
ee+g	B22350466		AGUAS DE BARBASTRO ENERGÍA, S.L.	141,010000	0,000178	0,535923	36.398,04	128,53	36.526,57
ee	B66024464		AHORRO ENERGIA HOGAR	61,300000	0,000077	0,232977	15.822,99	14,80	15.837,78

Economic
equivalence to
saving
obligation in 2018
(including 2017
adjustment) (€)





10th December 2018 began the public audience for the «Proposal of ministerial decision setting obligations of contributions to the National Energy Efficiency Fund during the year 2019»



https://energia.gob.es/es-es/Participacion/Paginas/propuesta-orden-aportacion-fondo-nacional-eficiencia-energetica-2019.aspx





ENERGY EFFICIENCY NATIONAL FUND

GRANTS AND FINANCIAL SUPPORT PROGRAMMES

- 1. STREET LIGHTINING
- 2. SMEs AND LARGE CORPORATIONS IN THE INDUSTRIAL SECTOR
- 3. MODAL SHIFT ACTIONS AND MORE EFFICIENT MEANS OF TRANSPORT
- 4. DESALINATION PLANTS
- 5. RAIL SYSTEMS
- 6. ENERGY RETROFITTING OF BUILDUINGS AID PROGRAMME (PAREER II)
- 7. FUNDING PROGRAMME ICO-IDAE ON ENERGY EFFICIENCY 2017-2018 (GUARANTEES)

ADDITIONAL ACTIVITIES

8. COMMUNICATION CAMPAIGN





ENERGY EFFICIENCY TARGETS

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ALTERNATIVE MEASURES





ALTERNATIVE MEASURES

OTHER FUNDING PROGRAMMES FOR ENERGY EFFICIENCY

- 1. ENERGY RETROFITTING OF BUILDINGS (PAREER-CRECE)
- 2. ALTERNATIVE MOBILITY: MOVALT VEHICLES
- 3. ALTERNATIVE MOBILITY: MOVALT INFRASTRUCTURES
- 4. SINGULAR PROJECTS WITHIN LOCAL ENTITIES PROMOTING TRANSITION TO A LOW CARBON ECONOMY(FEDER)
- 5. RENOVATION OF BUILDINGS/INFRASTRUCTURES OWNED BY CENTRAL GOVERNMENT (FEDER)





CURRENT SITUATION: FUNDING PROGRAMMES FOR ENERGY EFFICIENCY

Programa	Nº solicitudes	Presupuesto Programa (€)	Inversión (€)	Ayuda (€)	Financiación (€)	% Ayuda reservada
ALUMBRADO (# Convocatoria)	72	65.000.000 €	76.649.548 €	0 €	62.857.455 €	96,70%
ALUMBRADO (2ª Convocatoria)	54	48.791.000 €	55.611.006 €	0 €	52.744.291€	108,10%
INDUSTRIA (# Convocatoria)	427	115.216.421€	309.684.867 €	73.309.690 €	0€	63,63%
INDUSTRIA (2ª Convocatoria)	1.233	168.190.250 €	871.429.077 €	210.068.482 €	0 €	124,90%
TRANSPORTE (₱ Convocatoria)	25	8.000.000 €	991.130 €	670.347 €	0 €	8,38%
TRANSPORTE (2º Convocatoria)	46	3.720.000 €	6.110.579 €	1.935.388 €	0 €	52,03%
FERROCARRILES	107	13.000.000 €	23.289.234 €	6.100.468 €	0 €	46,93%
DESALADORAS	24	12.000.000 €	19.600.793 €	5.218.668 €	0 €	43,49%
REHABILITACIÓN EDIFICIOS PAREER II	1.540	204.000.000 €	440.220.850 €	153.082.449 €	148.195.992 €	147,69%
LÍNEA ICO IDAE EFICIENCIA ENERGÉTICA (INDUSTRIA Y HOSTELERÍA)*	2	100.000.000 €	388.168 €	0 €	310.041€	0,31%
PAREER-CRECE	1491	200.000.000 €	286.828.034 €	83.614.938 €	73.877.778 €	78,75%
DESARROLLO URBANO SOSTENIBLE ENTIDADES LOCALES (DUS)	1.418	480.076.588 €	516.668.346 €	379.996.263 €	0 €	79,15%
RENOVACIÓN EDIFICIOS/INFRAESTRUCTURAS AGE	103	95.181.546 €	72.851.338 €	51.780.706 €	0€	54,40%
PROGRAMA ENERGÍA EÓLICA EN CANARIAS	0	80.000.000 €	0 €	0 €	0€	0,00%
PLAN MOVALT VEHÍCULOS	2.977	20.000.000 €	0€	16.059.000 €	0 €	80,30%
PLAN MOVALT INFRAESTRUCTURA	702	20.000.000 €	0 €	28.616.491€	0 €	143,08%
TOTAL	10.221	1.633.175.805 €	2.680.322.969 €	1.010.452.890 €	337.985.556 €	

^{*} El Fondo Nacional de Eficiencia Energética aporta hasta un máximo de 50.000.000 € para asumir parcialmente el riesgo de las operaciones de financiación.





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4 Case study: funding programme on street lightning





- ➤ **Objective:** lamps and luminaires substitution and implementing management systems (regulation) to improve energy efficiency
- > 1st call for renewal of street lightning facilities May 2015 65 M€
- 2nd call for renewal of street lightning facilities- May 2017 48,8 M€

Budget = 65 (1^a) + 28,8 (2^a) + 20 (enlargement 02.06.2017) = 113,8 M€





BENEFICIARIES

All aids are aimed to the same profile of beneficiary:

- Townhalls
- Clusters of small municipalities ("Diputaciones" o "Mancomunidades o Agrupaciones")
- Public entities in charge of management of municipal public services not developing an economic activity





ELEGIBLE ACTIVITIES

Those allowing:

- Reducing electricity consumption in street lightning by, at least, 30% (final energy certification of the funded installations should be A or B)
- Regulating lightning leveles according to different night horarios and adjusting to the needs of the citizens.
- Adequating existing installations to the provisions set in "Reglamento de eficiencia energética en instalaciones de alumbrado exterior" ("Regulation on energy efficiency in street lightning installations").





Reimbursable loans

Up to 100% of the investment, with a ceiling of 4.000.000 € and a floor of 300.000 €

Maximum loan amount: 600 €/street light

Interest rate: 0,0 %

• Loan duration: 10 years (12 months deferred period).

• Opening, study and cancelation commission: **Exempt**.

• Guarantees: Exempt.

Payment conditions: monthly (constant quotas during loan duration)





1st CALL RESULTS

(Figures as 10/10/2018)

	Nº	Applications (€)
Total registered applications	124	141.433.764
Refusals and resignations	49	62.414.657
Refusals and resignations Favourable decision	49 72	62.414.657 62.857.455

ÿ = 1.140.000 €/applications







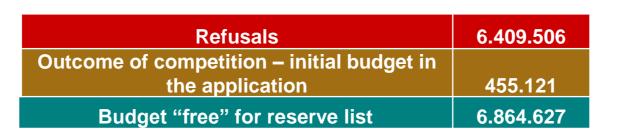


2nd CALL RESULTS

(Figures as 10/10/2018)

	Nº	Applications (€)
Total registered applications	95	86.117.828
Refusals and resignations	45	32.658.697
Refusals and resignations Favourable decision	43	32.658.697 43.744.636

ÿ = 906.500 €/application

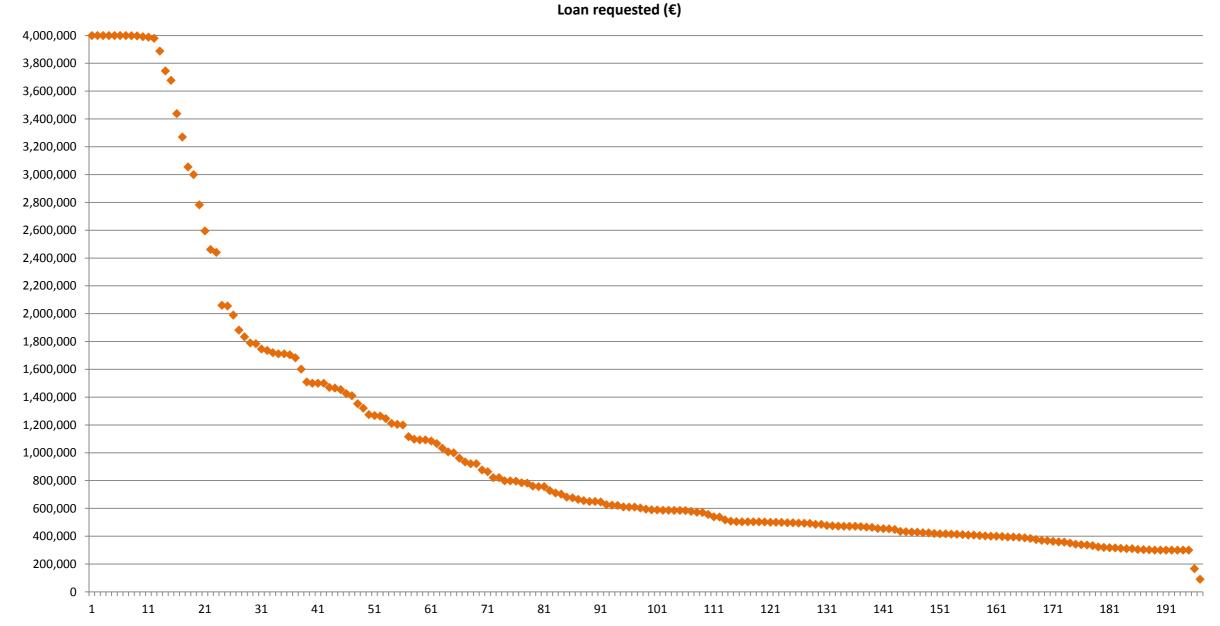






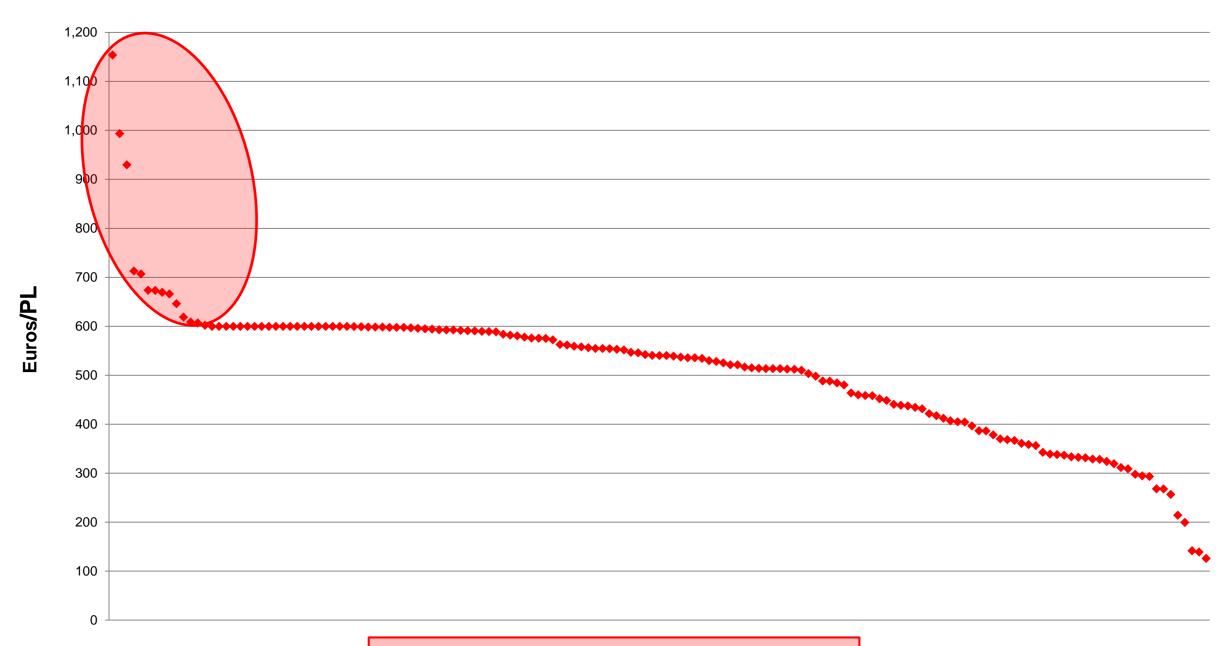












Maximum elegible cost (€) = 600 × PL

PL = punto de luz = street light

https://www.planalumbrado.es/resumen.aspx

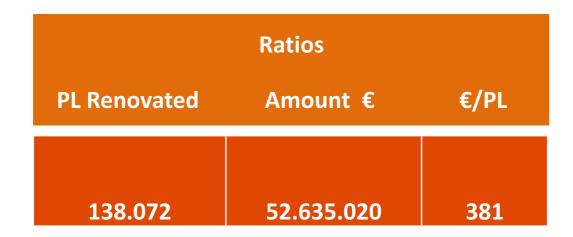




Contracts awarded (76 reforms as 10/10/2018)

	Ratios		% investment reduction in
PL Renovated	Amount €	€/PL	comparision with initial budget
169.769	56.635.007	334	21,7%

Valencia		
31.697	3.999.987	126

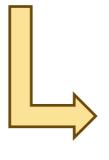






Typology of facilities applying to the programme

Population covered	7.130.025
Existing PL	1.211.964
Nº switchboards	18.362
Power installed (MW)	202.804
Electricity consumption (MWh/año)	679.344
Electricity bill (k€/año)	100.079
Electricity cost (€/kWh)	0,15



W/PL	167,3
PL/1000 hab	170,0
kWh/year hab	95,3
Hours/year	3.350





Scope of the projects

a) Existing installations

1.211.964 PL

679.344 MWh/year

167 W/PL

95 kWh/year hab

b) Renovated installations

397.879 PL

76.124 MWh/year

57 W/PL

66% savings

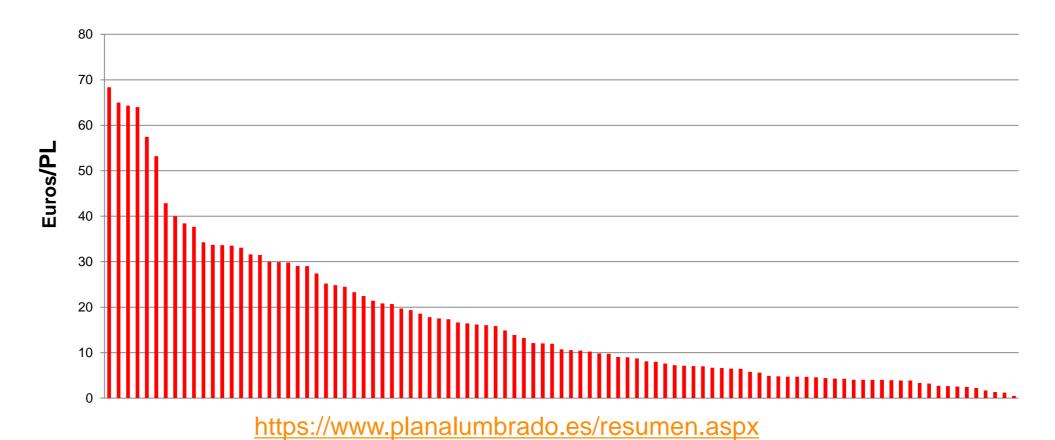
32 kWh/year hab





Maintenance costs

PL	Other Costes (k€)	Ratio (€/PL)
800.599	24.237	30,3





www.idae.es