

REPORT

*from the
French
authorities*

June 2020

Report from France

*in accordance with Article 24(1) and (2) of
Directive 2012/27/EU of the European Parliament and of
the Council of 25 October 2012 on energy efficiency*

2020 update



MINISTRY OF
ECOLOGICAL
AND INCLUSIVE
TRANSITION

Ministère de la Transition écologique et solidaire

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In accordance with European Directive 2012/27/EU on energy efficiency (Article 24 and Annex XIV), this report is intended to present an overview of the main energy efficiency measures adopted in 2019 and the principal key figures linked to energy consumption (for 2018), and to evaluate the implementation of Articles 5 and 7 of the Directive.

Measures implemented in 2019

Details of the legislation adopted in 2019 are contained in the Annex. The main measures are:

- **Energy and Climate Law:** Promulgation of Law No 2019-1147 of 8 November 2019 (the 'Energy and Climate Law') which, in particular, sets a target of reducing fossil fuel consumption by 40% by 2030, as compared to 2012 (previously 30%). Moreover, it introduces a number of provisions to address buildings with high heat loss (ban on rent increases from 2021, requirement for energy audits to be performed and more detailed information to be provided on dwellings offered for sale or rent from 2022, decent housing criterion based on energy consumption from 2028, requirement for work to be carried out by 2028). It also steps up checks to tackle fake Energy Saving Certificates.
- **Mobility Framework Law:** Promulgation of Law No 2019-1428 of 24 December 2019 (the 'Mobility Framework Law') which specifically improves everyday travel through simpler, cheaper and cleaner transport¹. In addition to allowing mobility to be governed regionally in order to bring it closer to citizens, the key measures introduced by the Law are as follows: ending the sale of fossil fuel-powered cars by 2040, trebling the use of bicycles by creating a fund and a sustainable mobility lump sum, rolling out electromobility, developing gas-powered vehicles (HGVs) and making car-sharing mainstream.
- **Energy saving certificates:** Publication of Decree No 2019-1320 of 9 December 2019 validating a one-year extension to the fourth period of the Energy Saving Certificates scheme and legislative texts on the validation of programmes included in that period. Publication of Decree No 2019-975 of 20 September 2019 allowing Energy Saving Certificates to be awarded for energy-saving measures taken by installations with a greenhouse gas emission allowance. Furthermore, Article 36 of Law No 2019-1147 of 8 November 2019 steps up efforts to tackle fake Energy Saving Certificates.
- **Energy efficiency upgrade of tertiary buildings:** Publication of Decree No 2019-771 of 23 July 2019 laying down requirements for tertiary buildings to reduce their final energy consumption by at least 40% by 2030, 50% by 2040 and 60% by 2050 as compared to 2010, under Article 175 of Law No 2018-1021 of 23 November 2018 on the development of housing, planning and the digital environment.
- **Energy efficiency upgrade assistance:** Publication of the Order of 5 September 2019 validating the 'Energy Efficiency Upgrade Assistance Service' (SARE) led by the Environment and Energy Management Agency (ADEME) and co-led at regional level. The purpose of the scheme is to implement information measures and provide assistance throughout France for energy efficiency upgrades to housing and small private tertiary premises ('FAIRE centres') over the period 2019-2024.
- **Conversion to individual heating and cooling charges:** Publication of legislative texts on determining individual heating and cooling volumes and allocating heating and cooling costs in multi-occupancy buildings used for professional and residential purposes or solely residential purposes.

¹ <https://www.francemobilites.fr/loi-mobilites>

- **Extension of income tax credit for energy transition and creation of an energy transition premium:** Article 15 of Law No 2019-1479 of 28 December 2019 on the 2020 budget extended income tax credit by one year until the end of 2020 and introduced an energy transition premium. For low-income households, income tax credit for energy transition will be replaced by this premium in 2020.
- **Clean vehicles:** Publication of legislative texts on aid for the purchase or hire of low-emission vehicles. Changes to the conditions for granting the conversion premium and to the amount of the premium.

Statistical data linked to energy consumption

The tables below summarise the statistical data to be provided for the year 2018 pursuant to Article 24 of Directive 2012/27/EU.

Statistical data on energy consumption (in million tonnes of oil equivalent - Mtoe):

	2016	2017	2018
Actual primary energy consumption (all uses, not temperature corrected)	246.4	246.2	245.0
Gross primary energy consumption (excluding non-energy consumption, not temperature corrected)	232.9	231.9	231.6
Final gross energy consumption (not temperature corrected)	139.8	138.9	136.9
<u>Final energy consumption by sector (temperature corrected):</u>			
- Residential	40.6	41.0	40.7
- Tertiary	23.4	24.1	24.3
- Transport	43.9	44.3	43.4
- Industry	27.4	26.7	27.3
- Agriculture	4.4	4.3	4.3
<i>Total final energy consumption by sector</i>	<i>139.7</i>	<i>140.5</i>	<i>140.0</i>

Source: SDeS - Service de la Donnée et des Etudes Statistiques

The variations in the data, which have not been temperature corrected, reflect the conditions in 2018, namely a milder climate and slower economic growth. The downward trend in primary and final energy consumption which started in 2016 and 2017, continued between 2017 and 2018.

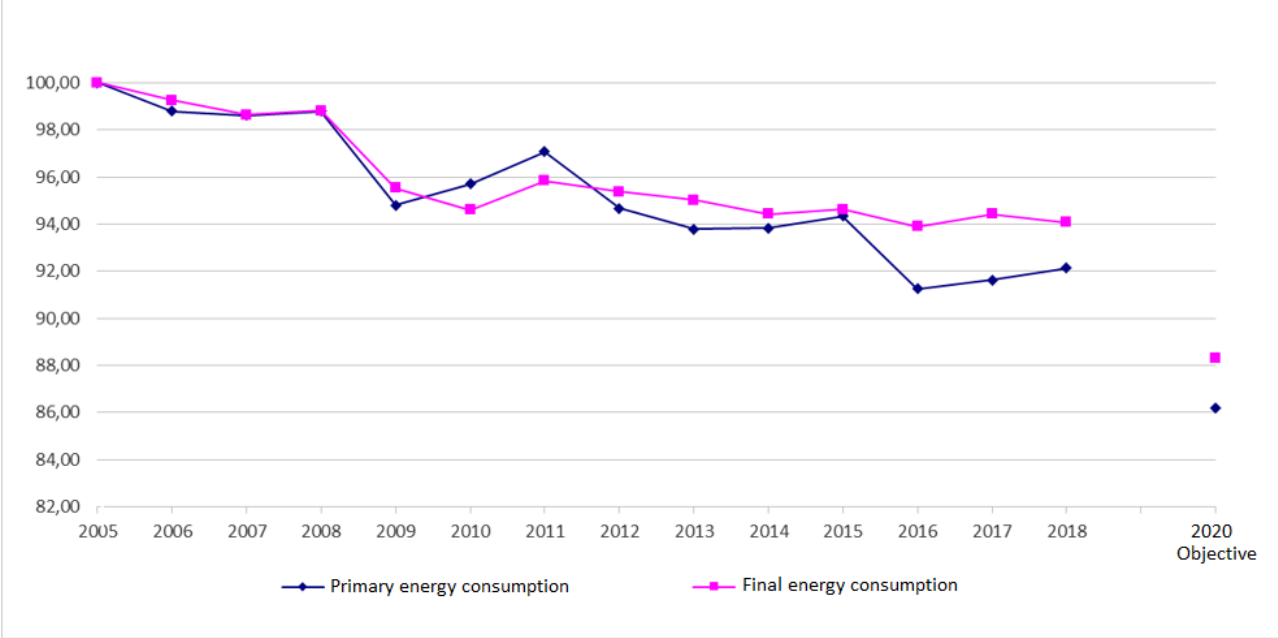
The temperature corrected data show that final energy consumption decreased by 0.4% between 2017 and 2018, after increasing by 0.6% between 2016 and 2017. Details on final energy consumption show contrasting trends in the different sectors, namely an increase in the tertiary sector and in industry, and a decrease in the housing and transport sectors. The largest increase was in industry (+2.3%) thanks to an increase in production. Only a slight increase was observed in the tertiary sector (+0.5%). By contrast, the transport sector experienced the biggest decrease (-2.1%), with passenger transport remaining stable and goods transport increasing slightly (+2%). This was followed by the housing sector (-0.7%). Final energy consumption also fell slightly in the agricultural sector (-0.6%).

Changes in energy consumption, in accordance with the targets set under Article 3 of the Directive:

Applying Article 3 of Directive 2012/27/EU on energy efficiency, France has set the double target of reducing its energy consumption to 131.4 Mtoe of final energy and 219.9 Mtoe of primary energy by 2020 (excluding

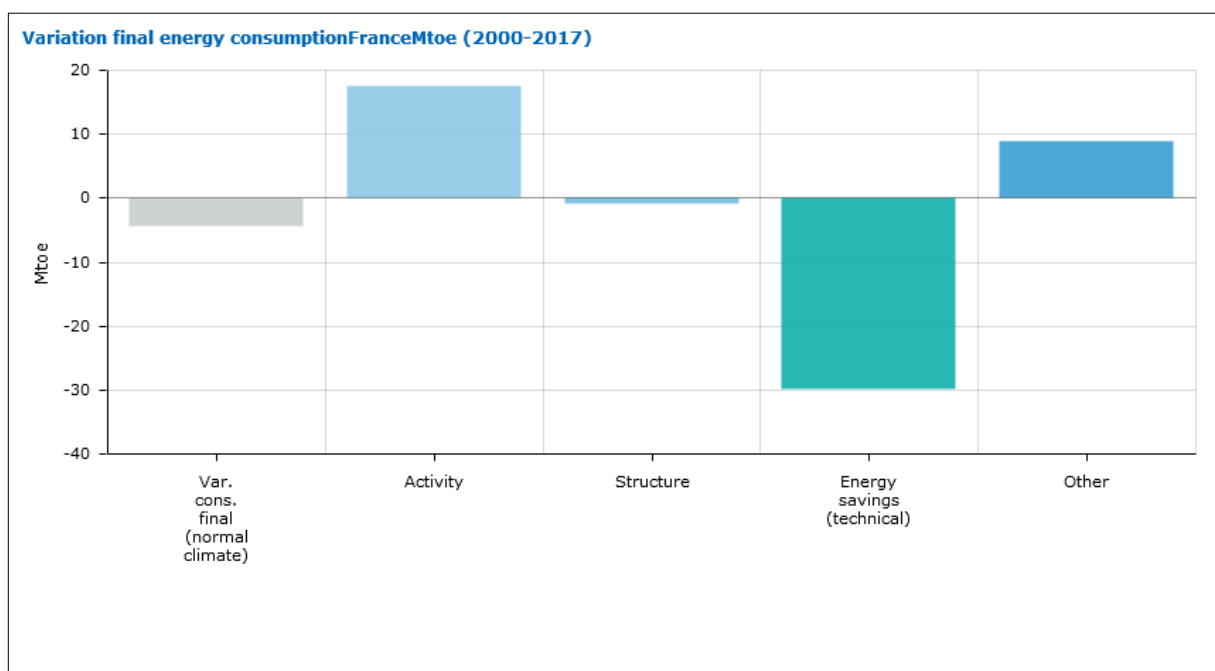
international aviation and non-energy uses). Excluding non-energy uses and international aviation, temperature corrected energy consumption in France in 2018 was 140.0 Mtoe of final energy and 235.1 Mtoe of primary energy.

The graph below shows the progress made towards achieving the targets (temperature corrected data):



Current measures will have to be rapidly stepped up or new measures adopted if the 2020 targets are to be achieved. Furthermore, the graph below, produced by the Odyssee-Mure project, reveals the breakdown of the changes in final energy consumption in France between 2000 and 2017, and shows the significant progress made in energy efficiency over this period:

Changes in final energy consumption between 2000 and 2017 (in Mtoe)²



Other indicators required by the Directive:

Statistics on heat and electricity generation (in Mtoe):

	2016	2017	2018	Source
Gross electricity generation from thermal power plants	40.2	40.6	40.6	SDeS/Eurostat
Heat generation from thermal power plants	4.2	4.2	4.2	SDeS/Eurostat
Fuel consumption by thermal power plants	121.9	122.3	123.5	SDeS/Eurostat
Gross electricity generation from combined heat and power plants	1.7	1.8	1.8	SDeS/Eurostat
Gross heat generation from combined heat and power plants, including heat recovered from industrial waste	2.3	2.4	2.3	SDeS/Eurostat
Fuel consumption by combined heat and power plants	5.7	6.0	5.8	SDeS
Heat generation from district heating plants	1.8	1.8	1.8	SDeS/Eurostat
of which heat supplied	1.5	1.5	1.5	SDeS

² Source: Odyssée, 2019

Fuel consumption by district heating plants	2.7	2.8	2.8	SDeS/Eurostat
of which fuel consumption in district heating plants for heat generation	2.1	2.1	2.2	SDeS
Losses from transport and energy distribution (all fuels)	4.3	4.3	4.3	SDeS/Eurostat

Financial statistics

	2016	2017	2018	Source
Gross value added (industry) ³ (in EUR billion 2014)	273.3	275.4	275.7	INSEE
Gross value added (services) (in EUR billion 2014)	1 552.5	1 585.8	1 619.9	INSEE
Disposable household income (in EUR billion 2014)	1 353.5	1 383.4	1 421.2	INSEE
Number of households (in thousands)	29 256	29 500	29 745	INSEE
Population (in thousands)	66 603	66 774	66 884	INSEE
Gross domestic product (in EUR billion 2014)	2 197.5	2 247.2	2 285.9	INSEE
Number of passenger kilometres (in billions of pkm)	932.1	941.4	939.4	SDeS
Number of tonne-kilometres (in billions of tkm), excluding oil pipelines	328.4	348.4	356	SDeS

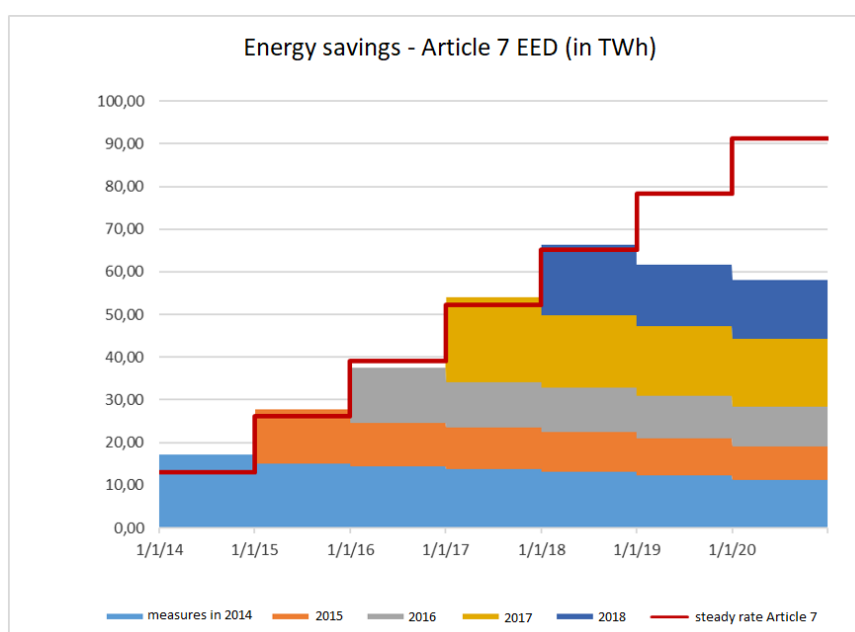
³ Manufacturing industry, mining and quarrying, others

Energy savings achieved in 2018 pursuant to Article 7 of the Directive

Pursuant to this article, France has set itself a target of 365 TWh in energy savings over the 2014-2020 period, i.e. an annual target of 13.036 Mtoe to be achieved principally through the implementation of Energy Saving Certificates (ESCs).

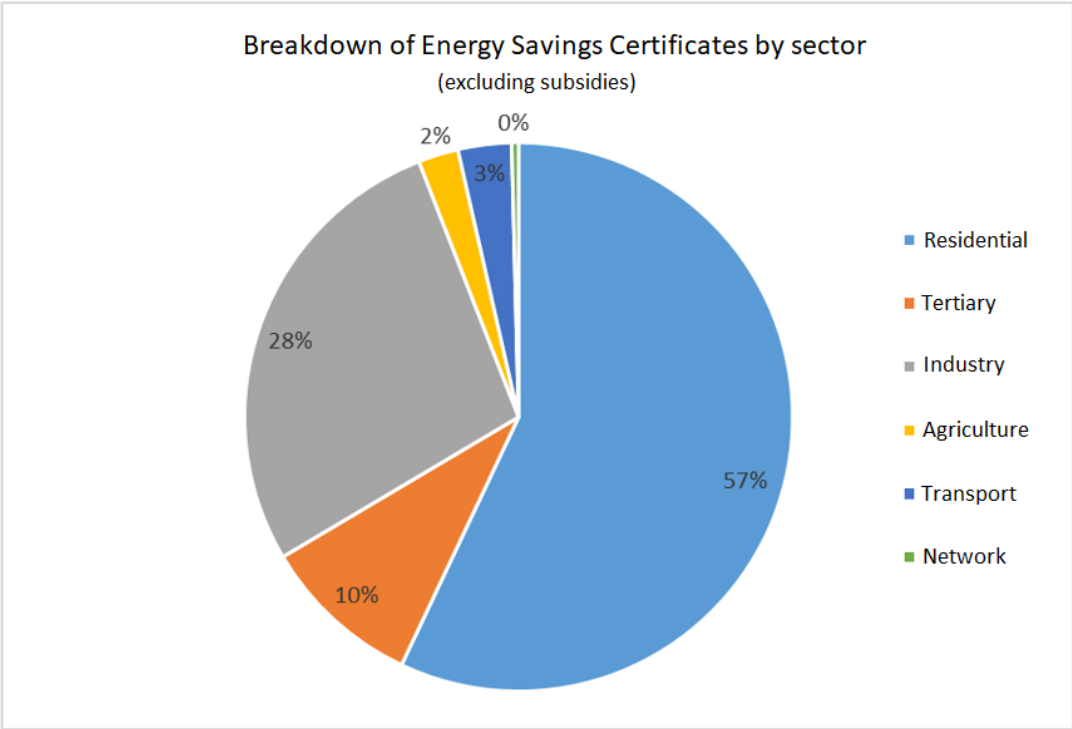
Measures implemented over the 2014-2018 period as part of the energy saving certificates scheme will enable combined energy savings of around 322 TWh to be achieved by 2020, i.e. 88% of the energy savings to be made over the 2014-2020 period.

Action taken in	Energy savings generated per year (TWh)							Cumulative saving
	2014	2015	2016	2017	2018	2019	2020	
2014	17.14	15.04	14.46	13.80	13.21	12.21	11.25	97.12
2015		12.68	10.08	9.69	9.26	8.84	7.81	155.48
2016			13.02	10.68	10.27	9.83	9.42	208.71
2017				19.84	17.10	16.45	15.77	277.87
2018					16.43	14.37	13.81	322.48



Actions initiated in 2018 will allow over 187 TWh of energy savings to be generated over their course. Over the 2018-2020 period, this will result in savings of almost 45 TWh.

The breakdown by sector of Energy Saving Certificates issued between 1 January 2018 and 31 December 2018 for standard operations (including fuel poverty, minus subsidies) is as follows:



Energy savings achieved in 2018 pursuant to Article 5 of the Directive

In accordance with Article 5 of Directive 2012/27/EU on energy efficiency, France has opted for the alternative approach in order to reduce the energy consumption of the state's building stock. The buildings affected by the implementation of this article are public buildings occupied by state services: offices, educational or sports buildings, health or social buildings, cultural buildings, shops or housing. In total, these buildings cover 22.2 million square metres. Agricultural buildings, technical buildings, Ministry of Defence buildings (excluding housing and offices), road and services civil engineering structures, places of worship, as well as monuments and memorials are excluded from the scope of the Directive.

This alternative approach is based on the target set by Article 5 of Law No 2009-967 of 3 August 2009 of a 40% reduction by 2020 in the energy consumption of state buildings and public institutions. It will take a combination of several types of action for the state to achieve this target:

- work on the building envelope and equipment;
- equipment and occupant management measures;
- reducing the surface area occupied by state services.

The savings thus generated are estimated at 10 131 GWh of primary energy over the 2014-2020 period, compared to 2 477 GWh using the default approach. Details of the calculations are available in the October 2013 report submitted pursuant to Article 5 of the Directive⁴.

The initial evidence available (based on the amount of the energy bill for the French state's building stock in the accounting monitoring tool Chorus and observations on energy costs) makes it possible to estimate the changes in energy consumption during the first four years of implementing Article 5 of the Directive, and indicates that the estimated energy savings generated per year and cumulatively since 2014 are as follows:

Savings achieved compared to 2013						
	2014	2015	2016	2017	2018	Cumulative saving
Final energy (GWh)	720	2 080	1 540	1 340	1 160	6 840
Primary energy (GWh)	940	2 730	2 100	1 600	1 510	8 880

Furthermore, regarding property disposal, the Government relinquished 1 668 916 m² in 2014, 776 217 m² in 2015, 1 286 723 m² in 2016, 1 086 276 m² in 2017 and 765 442 m² in 2018.

⁴ This report is available at the following addresses: <http://www.developpement-durable.gouv.fr/sites/default/files/Synthese%20de%20la%20notification%20article%205.pdf> and <http://www.developpement-durable.gouv.fr/sites/default/files/Rapport%20sur%20l'article%205.pdf>

Annex: details of legislation adopted in 2019

- **Energy Saving Certificates (ESCs)**

- Law No 2019-486 of 22 May 2019 on business growth and transformation (Article 143)
- Law No 2019-1147 of 8 November 2019 on energy and climate (Articles 2, 36, 37 and 38)
- Decree No 2019-975 of 20 September 2019 on the implementing rules for the Energy Saving Certificates scheme for installations with a greenhouse gas emission allowance
- Decree No 2019-1320 of 9 December 2019 on Energy Saving Certificates and extending the fourth obligation period of the scheme
- Order of 31 January 2019 validating the 'ALVEOLE' programme as part of the Energy Saving Certificates scheme
- Order of 1 March 2019 validating the following programmes as part of the Energy Saving Certificates scheme: '*Les jeunes s'engagent pour les économies d'énergie* (Youth engagement in energy savings)', 'PEPZ', 'EcoPro', 'tRees', 'Smart Reno', 'CaSBâ', 'Energie Sprong France', 'Facilaréno', « ACTEE - *Action des Collectivités Territoriales pour l'Efficacité Energétique* (Local and Regional Action for Energy Efficiency)', 'ECLER - *Economie circulaire et Logistique écologique et responsable* (Circular Economy, and Ecological and Responsible Logistics)', 'LICOV', 'EMA – *Espace Multimodal Augmenté* (Expanded Multimodal Space)', '*EcoSanté pour une mobilité durable et active* (EcoHealth for Sustainable and Active Mobility)', 'FRED' and '*Sensibiliser et innover pour la transition énergétique de la sécurité sociale* (Awareness-Raising and Innovation for Energy Transition in Social Security)'
- Order of 12 March 2019 validating the 'PROFEEL' programme as part of the Energy Saving Certificates scheme
- Order of 14 March 2019 amending the Order of 4 September 2014 laying down the different components of applications for Energy Saving Certificates and the documents to be filed by the applicant, and amending the Order of 29 December 2014 on the implementing rules for the Energy Saving Certificates scheme
- Order of 15 March 2019 validating the following programmes as part of the Energy Saving Certificates scheme: '*Mobilisation/sensibilisation des acteurs de la transaction immobilière* (Mobilisation and awareness-raising among parties involved in property transactions)', '*Eco Energie pour les pros* (Eco Energy for Pros)', '*Kits pour les rendez-vous de l'éco-efficacité énergétique dans les petites communes rurales* (Energy Eco Efficiency for Small Rural Communities – Meeting Kits)', 'AEELA', 'Vélogistique' and 'Pendaoura+'
- Order of 17 April 2019 validating the 'AVELO' programme as part of the Energy Saving Certificates scheme
- Order of 24 May 2019 amending the Order of 22 December 2014 defining standardised energy efficiency operations
- Order of 12 July 2019 amending the Order of 29 December 2014 on the implementing rules for the Energy Saving Certificates scheme and introducing subsidies for certain standard energy saving operations
- Order of 31 July 2019 amending the Order of 22 December 2014 defining standardised energy efficiency operations

- Order of 5 September 2019 validating the '*Service d'accompagnement pour la rénovation énergétique*' (Energy Efficiency Upgrade Assistance Service)' programme as part of the Energy Saving Certificates Scheme
- Order of 20 September 2019 amending the Order of 29 December 2014 on the implementing rules for the Energy Saving Certificates scheme and the Order of 4 September 2014 laying down the different components of applications for energy saving certificates and the documents to be filed by the applicant
- Order of 22 November 2019 amending and validating programmes as part of the Energy Saving Certificates scheme
- Order of 9 December 2019 amending the Order of 4 September 2014 laying down the different components of applications for energy saving certificates and the documents to be filed by the applicant
- Decision of 11 February 2019 imposing a penalty under the Energy Saving Certificates scheme
- Decision of 14 March 2019 imposing a penalty under the Energy Saving Certificates scheme
- Decision of 19 March 2019 imposing a penalty under the Energy Saving Certificates scheme
- Decision of 2 May 2019 imposing a penalty under the Energy Saving Certificates scheme
- Decision of 9 May 2019 imposing a penalty under the Energy Saving Certificates scheme
- Decision of 15 May 2019 imposing a penalty under the Energy Saving Certificates scheme
- Decision of 4 June 2019 imposing a penalty under the Energy Saving Certificates scheme
- Decision of 1 July 2019 imposing a penalty under the Energy Saving Certificates scheme
- Decision of 4 July 2019 imposing a penalty under the Energy Saving Certificates scheme
- Decision of 9 July 2019 imposing a penalty under the Energy Saving Certificates scheme
- Decision of 29 July 2019 imposing a penalty under the Energy Saving Certificates scheme

- **Energy transition tax credit (CITE) and MaPrimeRénov' (MPR)**

- Law No 2019-1479 of 28 December 2019 on the 2020 budget (Article 15)
- Decree No 2019-88 of 11 February 2019 establishing means-testing for receiving income tax credit for energy transition for the cost of removing oil-fired boilers and installing renewable energy-powered equipment for heating and for the production of domestic hot water
- Order of 1 March 2019 implementing Article 200c of the General Taxation Code on income tax credit for energy transition

- **Interest-free eco-loan (Eco-prêt à taux zéro – Eco-PTZ)**

- Decree 2019-281 of 5 April 2019 on repayable zero-interest advances to finance work to improve the energy efficiency of older properties
- Decree 2019-839 of 19 August 2019 on repayable zero-interest advances to finance work to improve the energy efficiency of older properties
- Order of 18 March 2019 amending the Order of 30 March 2009 on the conditions for applying the provisions on repayable zero-interest advances to finance renovation work to improve the energy efficiency of older properties
- Order of 18 March 2019 amending the Order of 25 May 2011 on the application overseas of the provisions on repayable zero-interest advances to finance renovation work to improve the energy efficiency of older properties
- Order of 19 August 2019 amending the Order of 30 March 2009 on the conditions for applying the provisions on repayable zero-interest advances to finance renovation work to improve the energy efficiency of older properties
- Order of 19 August 2019 amending the Order of 25 May 2011 on the application overseas of the provisions on repayable zero-interest advances to finance renovation work to improve the energy efficiency of older properties
- Order of 5 December 2019 amending the Order of 30 March 2009 on the conditions for applying the provisions on repayable zero-interest advances to finance renovation work to improve the energy efficiency of older properties

- **Conversion to individual heating and cooling charges**

- Decree No 2019-496 of 22 May 2019 determining individual heating, cooling and domestic hot water volumes used and allocating heating, cooling and domestic hot water costs in multi-occupancy buildings used for professional and residential purposes or solely residential purposes
- Order of 6 September 2019 determining individual heating and cooling volumes and allocating heating and cooling costs in multi-occupancy buildings used for professional and residential purposes or solely residential purposes

- **Heating Regulation for new buildings**

- Decree No 2019-494 of 21 May 2019 amending Decree No 2000-1153 of 29 November 2000 on thermal characteristics amending the Construction and Housing Code and implementing Law No 96-1236 of 30 December 1996 as regards air and the rational use of energy
- Order of 18 April 2019 approving arrangements for incorporating 'Qrad heating systems using recycled waste heat from IT equipment' into the 2012 Heating Regulation
- Order of 29 April 2019 approving arrangements for incorporating the 'PKOM4 Classic' system into the 2012 Heating Regulation
- Order of 29 April 2019 approving arrangements for incorporating the 'TWIDO photovoltaic system for direct domestic hot water production' into the 2012 Heating Regulation

- Order of 29 April 2019 approving arrangements for incorporating the 'Li-Mithra fuel cell system using brine on the underside of photovoltaic collectors' into the 2012 Heating Regulation
- Order of 29 April 2019 approving arrangements for incorporating the 'Myriade' system into the 2012 Heating Regulation
- Order of 29 April 2019 approving arrangements for incorporating the 'Grey water fuel cell' systems into the 2012 Heating Regulation
- Order of 29 April 2019 approving arrangements for incorporating the 'CET Héliothermiques' (Solar thermal heat pump water heater) system into the 2012 Heating Regulation
- Order of 3 May 2019 approving arrangements for incorporating 'Stand-alone gas-powered heating systems such as stoves and inserts' into the 2012 Heating Regulation
- Order of 3 May 2019 approving arrangements for incorporating 'UATRA individual adiabatic roof cooling unit' system into the 2012 Heating Regulation
- Order of 2 September 2019 approving arrangements for incorporating 'Instant grey water heat recovery' systems into the 2012 Heating Regulation
- Order of 26 November 2019 approving arrangements for incorporating 'Domestic hot water accumulator systems using water from technical installations' into the 2012 Heating Regulation
- Order of 26 November 2019 approving arrangements for incorporating the 'YACKBionic' system into the 2012 Heating Regulation

- **Energy efficiency upgrade**

- Law No 2019-1147 of 8 November 2019 on energy and climate (Articles 22 and 25)
- Decree No 2019-771 of 23 July 2019 laying down requirements for tertiary buildings to reduce their final energy consumption
- Order of 26 November 2019 approving arrangements for incorporating the 'Digital radiator' system into the Heating Regulation as regards existing buildings

- **Clean vehicles**

- Law No 2019-1428 of 24 December 2019 laying down a mobility framework
- Decree No 2019-737 of 16 July 2019 on aid for purchasing or hiring low-emission vehicles
- Decree No 2019-1526 of 30 December 2019 on aid for purchasing or hiring low-emission vehicles