



2019

Annual Activity Report

**Directorate-General
for Energy**



Foreword

Introductory message by the Director-General



2019 was an important year for DG Energy. We moved from the negotiations to the implementation of the Clean Energy for All Europeans Package, thereby contributing to the completion of the Energy Union and setting the foundation for the European Green Deal.

The Energy Union has now become a fundamental component of the European Green Deal in which energy will play a crucial role in the path towards a climate neutral Europe by 2050.

2019 was also the year where Member States submitted their first ever Integrated National Energy and Climate Plans (INECs). This allowed the Commission to assess ambitions towards our common 2030 energy and climate targets and the plans of Member States on how to reach the targets.

DG Energy continued its important work in all fields of energy policy, reinforcing energy security, strengthening the principle of 'energy efficiency first', supporting Europe to be a world number one in renewables, while contributing to a fully functioning internal market. DG Energy worked to ensure a fair deal for European consumers and address the societal issues arising from the clean energy transition.

This Annual Activity Report (AAR) provides a detailed outline of our achievements in 2019 relative to the objectives set in DG Energy's Strategic Plan 2016-2020 and Annual Management Plan 2019. While part 1 sets out our main policy achievements in the past year, part 2 provides insights on how we reached these and provides information about the management of the allocated resources as well as the internal organisation of the Directorate-General.

For more information on the activities of DG Energy, please visit our website:

<https://ec.europa.eu/energy/>

I wish you an interesting reading on how energy policy contributes to the European Green Deal, energy security and a just transition.

Ditte Juul Jørgensen

Director-General of DG Energy

Table of Contents

THE DG IN BRIEF	4
EXECUTIVE SUMMARY	6
A) KEY RESULTS AND PROGRESS TOWARDS THE ACHIEVEMENT OF THE COMMISSION'S GENERAL OBJECTIVES AND DG'S SPECIFIC OBJECTIVES (EXECUTIVE SUMMARY OF SECTION 1)	6
B) KEY PERFORMANCE INDICATORS (KPIs)	10
C) KEY CONCLUSIONS ON FINANCIAL MANAGEMENT AND INTERNAL CONTROL (EXECUTIVE SUMMARY OF SECTION 2.1)	13
D) PROVISION OF INFORMATION TO THE COMMISSIONER	14
1. KEY RESULTS AND PROGRESS TOWARDS THE ACHIEVEMENT OF THE COMMISSION'S GENERAL OBJECTIVES AND DG'S SPECIFIC OBJECTIVES	15
1.1 GENERAL OBJECTIVES AND ACHIEVEMENTS	15
1.2 SPECIFIC OBJECTIVE 1: CONTRIBUTION TO SECURITY OF SUPPLY, BASED ON SOLIDARITY AND TRUST	17
1.3 SPECIFIC OBJECTIVE 2: FURTHER WORK TOWARDS A WELL-FUNCTIONING AND FULLY INTEGRATED INTERNAL ENERGY MARKET, INCLUDING WITH INTERCONNECTORS	19
1.4 SPECIFIC OBJECTIVE 3: PROMOTING THE MODERATION OF ENERGY DEMAND	21
1.5 SPECIFIC OBJECTIVE 4: PROMOTING THE DECARBONISATION OF THE EU ENERGY MIX AND THE INCREASE OF ENERGY PRODUCTION FROM LOW CARBON ENERGY SOURCES, IN PARTICULAR RENEWABLES	24
1.6 SPECIFIC OBJECTIVE 5: TAPPING THE JOB AND GROWTH POTENTIAL OF THE ENERGY SECTOR AND FURTHER DEVELOPING ENERGY TECHNOLOGIES (HORIZON 2020), INCLUDING ITER AND THE SAFE AND SECURE USE OF NUCLEAR ENERGY	25
1.6.1 COMPETITIVENESS	25
1.6.2 RESEARCH AND INNOVATION	26
1.6.3 NUCLEAR ENERGY (PROMOTING THE SAFE AND SECURE USE OF NUCLEAR ENERGY AND ENSURING THE PEACEFUL USE OF CIVIL NUCLEAR MATERIALS FOR THEIR INTENDED PURPOSES)	27
1.6.4 DEVELOPING FUSION TECHNOLOGIES (ITER)	28
1.7 SPECIFIC OBJECTIVE 6: IMPLEMENTATION AND FOLLOW-UP ON THE OVERALL ENERGY UNION STRATEGY	29
2. ORGANISATIONAL MANAGEMENT AND INTERNAL CONTROL	32
2.1 FINANCIAL MANAGEMENT AND INTERNAL CONTROL	32
2.1.1 CONTROL RESULTS	37
2.1.1.1 CONTROL EFFECTIVENESS	37
2.1.1.2 EFFICIENCY	41
2.1.1.3 ECONOMY	42
2.1.1.4 CONCLUSION ON THE COST-EFFECTIVENESS OF CONTROLS	42
2.1.2 AUDIT OBSERVATIONS AND RECOMMENDATIONS	42
2.1.3 ASSESSMENT OF THE EFFECTIVENESS OF INTERNAL CONTROL SYSTEMS	44
2.1.4 CONCLUSIONS ON THE ASSURANCE	45
2.1.5 DECLARATION OF ASSURANCE	47
DECLARATION OF ASSURANCE	48
2.2 OTHER ORGANISATIONAL MANAGEMENT DIMENSIONS	49
2.2.1 HUMAN RESOURCE MANAGEMENT	49
2.2.2 BETTER REGULATION	50
2.2.3 INFORMATION MANAGEMENT ASPECTS	50
2.2.4 EXTERNAL COMMUNICATION ACTIVITIES	51
2.2.5 EXAMPLES OF PLANNED INITIATIVES TO IMPROVE ECONOMY AND EFFICIENCY	53

THE DG IN BRIEF

Under the political guidance of Commissioner Kadri Simson, the Directorate-General for Energy (hereafter 'DG ENER' or 'the DG') is responsible for developing and implementing the **European energy policy**.

DG ENER is responsible for the energy-related aspects of the **Energy Union**, which constitutes a solid foundation for the **European Green Deal**, by providing a balance between sustainability, security of supply and affordability and ensuring political acceptance across the Union. The aim is to ensure that the energy sector delivers for all citizens and all regions. DG ENER proposes, implements and reviews legislation and initiatives under the Energy Union, focusing on its five key dimensions:



Commissioner for Energy Kadri Simson and Commission President Ursula von der Leyen.

- Energy security, built on solidarity and trust between EU countries
- A fully functional internal energy market
- Energy efficiency as a contribution to moderation of energy demand
- Decarbonisation of the economy, including renewable energy
- Research, innovation and competitiveness

The DG promotes secure, sustainable, competitive and affordable energy for all EU citizens. It does so by creating the conditions for an integrated energy market which works for citizens, by ensuring energy efficiency first and making the EU a world leader in renewable energy sources. Its policies contribute to the decarbonisation of the European economy and help the EU to meet its ambitious 2020, 2030 and 2050 energy and climate targets in view of achieving climate neutrality by 2050.

Among its other tasks, the DG proposes legislation and ensures implementation of the EU legislative framework for the safe use of nuclear energy, ensures the application of the Euratom Treaty, and supports the secure and peaceful use of non-power applications using nuclear material. Finally, the DG contributes to the development of nuclear fusion energy technologies through the ITER project.

In 2019, the DG ensured good and sustained progress in achieving the specific objectives set out in its Strategic Plan 2016-2020 which are in line with the Energy Union. With the adoption of the "Clean Energy for all Europeans package", the DG has contributed to building the most important legislative framework in the field of energy in the history of Europe. The DG achievements covers all five dimensions of the Energy Union as well as the BREXIT preparedness activities and legislation.

The main spending programmes in 2019 that supported the work of the DG ENER were:

- The ITER project and ITER-related activities, a cutting-edge fusion research device being built jointly by seven global partners, accounted for more than half of DG ENER's spending in 2019 (67.63% of total spending, or €569.254 million).
- The 'Nuclear Decommissioning programmes' for nuclear power plants in Bohunice (Slovakia), Ignalina (Lithuania) and Kozloduy (Bulgaria), accounting for 18.67% of DG ENER's spending.
- The 'European Energy Programme for Recovery' (EEPR), accounting for around 4.10% of DG ENER's spending. EEPR was established in 2009 to address both Europe's economic crisis and European energy policy objectives.

- Research programmes (Intelligent Energy – Europe Programme, 7th Framework Programmes for Research and Technological Development and Horizon 2020), accounting for 1.42% of DG ENER's spending.
- Programme support actions under the Connecting Europe Facility (CEF) amount to 0.30% of DG ENER's CEF spending. These actions support the effective implementation of TEN-E to meet its policy objectives. DG ENER also devotes 0.01 % of its budget to Euratom related tasks such as Nuclear safeguards.

The European Fund for Strategic Investments (EFSI) 2015-2020 finances strategic energy infrastructure, energy efficiency, and renewable energy projects. As of 31 December 2019, a substantial number of EFSI projects have been approved, for a total investment of EUR 272.8 billion, of which EUR 79.6 billion directly targeting the energy sector. The energy sector ranks second in EFSI infrastructure financing, where it accounts for around 29% of EFSI operations.

DG ENER has **655 staff**, including external staff (contract agents and SNEs). Three Directorates (A, B and C), accounting for half of the staff, are based **in Brussels**: they deal with energy policy coordination and related statistical and economic analysis, international relations, inter-institutional and communication aspects, internal energy market and infrastructure, renewables, research and innovation, and energy efficiency. The other two Directorates (D and E) are based **in Luxembourg** (with the exception of the ITER Unit, which is part of Directorate D but based in Brussels) and cover nuclear safety, spent fuel and radioactive waste, decommissioning, radiation protection and ITER as well as nuclear safeguards.

The work of DG ENER is supported by the 'Shared Resources Directorate' (SRD), shared with and technically assigned to DG MOVE, which has 90 staff in 2019 in Brussels, dealing with financial resources (including budget), operational finances and project financing, informatics and logistics, assurance and supervision and with document management/archiving.

All this work is supported by the two Executive Agencies for Innovation and Networks (INEA) and for Small and Medium-sized Enterprises (EASME); by the Euratom Supply Agency (ESA); by the regulatory Agency for the Cooperation of Energy Regulators (ACER); and the Fusion for Energy (F4E) Joint Undertaking.

EXECUTIVE SUMMARY

The Annual Activity Report is a management report of the Director-General of DG ENER to the College of Commissioners. Annual Activity Reports are the main instrument of management accountability within the Commission and constitute the basis on which the College takes political responsibility for the decisions it takes as well as for the coordinating, executive and management functions it exercises, as laid down in the Treaties¹.

a) Key results and progress towards the achievement of the Commission's general objectives and DG's specific objectives (executive summary of section 1)

In summary, 2019 was an intense and important year for the delivery of the **Energy Union**. It all started in 2016, notably with the adoption of the **Clean Energy for All Europeans Package** - the largest package of legislative proposals regarding energy policy ever presented by the Commission. This culminated in 2018 with the entry into force of **Energy Performance in Buildings Directive, Energy Efficiency Directive, Renewables Directive**



and the **Governance Regulation**. In 2019, the legislative work was completed with the entry into force of the remaining legislative files (i.e. **Electricity Risk Preparedness Regulation, Electricity Regulation and Directive, Agency for Co-operation of Energy Regulators (ACER) Regulation**) and the focus of DG ENER was on the implementation of the new legal provisions. This great achievement would not have been possible without the strong commitment and dedication of the DG staff.

The actions conducted by DG ENER in 2019 contributed to **concluding the ambitious energy reforms set in 2015 by the Energy Union across all its five dimensions**. In particular, new legislation was introduced in the areas of energy security, solidarity and trust; a fully integrated European energy market; energy efficiency contributing to moderation of demand and decarbonisation of the economy (including promotion of renewable energy). **The DG delivered on President Juncker's priority to build a resilient Energy Union with a forward-looking climate change policy** and contributed to setting the foundations of a successful **European Green Deal under the Von der Leyen Commission**. At the same time, DG ENER contributed to delivering on the objective of ensuring proper enforcement of the existing energy acquis by closely following and ensuring the implementation of legislation in the EU Member States.

Key achievements 2019 grouped by the six specific objectives of the DG's Strategic Plan:

Concerning **specific objective 1: Contribution to security of supply, based on solidarity and trust**, an important milestone was the adoption by the co-legislators of the **Regulation on risk preparedness in the electricity sector** (one of the Clean Energy legislative proposals). The new Regulation focuses on how to secure the resilience of the electricity system as a whole and how to manage electricity crises when they occur. It ensures that all Member States put in place the appropriate tools to prevent, prepare for and mutually assist themselves in case of crisis. It introduces common

¹ Article 17(1) of the Treaty on European Union.

methodologies at European level to identify crisis scenarios and assess short term and seasonal adequacy. The Commission also adopted a **Recommendation on cybersecurity** in energy to provide guidance to the energy sector to increase its preparedness to possible cyberattacks.

To ensure the **security of gas supply**, the Commission reviewed the preventive action plans and emergency plans of Member States and analysed their preparedness in view of possible disruptions from Russia across Ukraine ahead of the winter 2019/2020. In the international field the Commission provided support to Ukraine in its gas sector reform and conducted trilateral talks at political level with Russia and Ukraine which led to a new **agreement on principles of gas transit through Ukraine as of 01.01.2020**. With regard to the **Energy Community**, the Contracting Parties and the EU adopted the Network Code on Gas Balancing of Transmission Networks. The Commission proposal for the draft 2019 Policy Guidelines on 2030 targets and climate neutrality for the Energy Community and its Contracting Parties was also agreed. The review under Article 34(7) of the Energy Charter Treaty was completed recommending measures to improve the functioning of the Conference and the Secretariat. Furthermore, the Energy Charter Contracting Parties agreed to launch the Energy Charter Treaty modernisation process.



Maroš Šefčovič @MarosSefcovic · Dec 31, 2019

My strong appreciation for all the hard work and effort! Building on last week's political deal between #Russia, #Ukraine and the @EU_Commission, the transit contract between respective companies - securing continuous gas flows to Europe as of 1/1/2020 - is now signed and sealed.



Regarding the work on **specific objective 2: Further work towards a well-functioning and fully integrated internal energy market, including with interconnectors**, 2019 was a major year as **the recast Electricity Directive and Regulation and the recast ACER regulation** entered into force. DG ENER also facilitated the political agreement on an amended Gas Directive and implemented the new **internal electricity market rules**. The Commission also adopted the **fourth list of designated Projects of Common Interest (PCIs)** in October 2019. Electricity and smart grids account for more than 70% of the projects, mirroring the increasing role of renewable electricity in the energy system and the need for network reinforcements enabling the integration of renewables and more cross-border trade. The PCIs included in the list will be eligible for support under the CEF programme.

Important progress was made regarding the Clean Energy enabling framework: the **'Coal Regions in Transitions Platform'** is fully operational and assistance to the pilot regions in preparing transition strategies has started; the **Covenant of Mayors** passed the 1000 mark in terms of cities committed to 2030 energy and climate targets; the **'Clean Energy for EU Islands Initiative'** and the **EU Energy Poverty Observatory** are fully operational.

In relation to **Specific Objective 3: Promoting the moderation of energy demand**, following the **adoption by the co-legislators of the revised Energy Efficiency and Energy Performance of Buildings Directives**, DG ENER issued, in close cooperation with Member States, recommendations providing guidance on the new energy efficiency provisions and on how to implement the revised provisions on building renovation and the decarbonisation of national building stocks by 2050. Important progress was also made in the area of products: the Commission adopted 14 **ecodesign and energy labelling regulations** for 7 product groups after several years of preparation with stakeholders. An important change in the new ecodesign rules is the inclusion of elements to further enhance the reparability and recyclability of appliances. Several of the new measures include requirements on the availability of spare parts and access to repair and maintenance information for professional repairers.

As concerns **Specific Objective 4: Promoting the decarbonisation of the EU energy mix and the increase of energy production from low Carbon Energy Sources, in particular renewables**, work in 2019 focused on the implementation of the **recast of the Directive on the promotion of the use of energy from renewable sources (REDII)²**, together with the implementation of other Clean Energy package's renewable relevant elements. Another important priority during the year has been the preparatory work to facilitate the smart integration of the electricity, heating and cooling, transport and industry sectors in order to speed up the deployment of clean energy across the economy and deliver climate neutrality cost-effectively.

Relevant progress was also made on promoting **regional cooperation on renewables** including within different High Level Groups such as North Seas, the Baltic Energy Market Interconnection Plan (BEMIP) and Central and South Europe Connectivity (CESEC) region. **EU international cooperation** on renewable energy continued to grow in 2019. This included bilateral dialogues and exchanges with partner countries and discussions with the Energy Community on 2030 targets and the renewable energy potential for the CESEC (Central and South Eastern Europe Connectivity) region.

With regards to **Specific Objective 5: Tapping the job and growth potential of the energy sector and further developing energy technologies (Horizon 2020), including ITER and the safe and secure use of nuclear energy**, DG ENER presented several initiatives in 2018. These include *inter alia* the adoption of the **2018 energy prices and costs report**, which was presented to various stakeholders and work on the implementation of the Strategic Energy Technologies Plan, which continued throughout the year. International cooperation, notably in the context of the Clean Energy Ministerial, was intensified.

Further, in 2019 DG ENER continued to ensure an effective implementation of the **nuclear safety, management of spent fuel and radioactive waste and radiation protection legal framework**. In particular, DG ENER advanced with its transposition checks regarding the latest Basic Safety Standards Directive and the revised Nuclear Safety Directive and also worked, in close collaboration with the Member States' regulatory authorities within the European Nuclear Regulatory Safety Group (ENSREG), on the follow-up of the **first Topical Peer Review (TPR) on "Ageing management of nuclear power plants and research reactors" under the revised Nuclear Safety Directive**. The **nuclear decommissioning assistance** programmes in **Bulgaria, Lithuania** and **Slovakia** continued to reduce nuclear and radiation risks. The Commission also presented the **Second report on the implementation of the Directive on the responsible and safe management of spent fuel and radioactive waste**, the **Third report on the implementation of the Directive on the supervision and control of shipments of radioactive waste and spent fuel**, and the **Euratom Report on the implementation of the Convention on Nuclear Safety (CNS)**. DG ENER coordinated the Euratom contribution to Brexit-related activities in preparation of the UK's withdrawal and negotiations with the UK on future relations.

In 2019, **good progress was achieved in the construction of the ITER machine** in line with the current schedule towards achieving First Plasma in 2025. Euratom (represented by DG ENER) took forward preparatory work with Japan for the conclusion of a Joint Declaration on the continuation of Broader Approach (BA) activities under the current bilateral agreement, which recognises the successful results and potential benefits of further cooperation for the ITER Project.

² Directive (EU) 2018/2001 of the European Parliament and of the Council on the promotion of the use of energy from renewable sources (recast)

Concerning **Specific Objective 6: Implementation and follow-up on the overall Energy Union strategy**, DG ENER was, together DG CLIMA, in the lead for the assessment of the **draft National Energy and Climate Plans**, which took place during the first half of 2019. Based on this thorough assessment including a **horizontal communication** and **28 Staff Working Documents**, the **Commission** issued



recommendations to all Member States, as part of the iterative process between the Commission and Member States designed to submit final plans by end of 2019. Another important priority for DG ENER was to **prepare the Commissioner-designate for the hearing at the European Parliament** and the new Commission mandate by proposing a number of major initiatives to support the **European Green Deal** political priority.

In 2019, DG ENER worked in close collaboration with DG CLIMA being actively involved in the political follow-up and outreach of the long-term energy and climate strategy **“A Clean Planet for All Europeans”**³. The Strategy shows how Europe can lead the way to climate neutrality while ensuring social fairness for a just transition.

With the adoption of all the Clean Energy for All European Package legislation, DG ENER contributed to accelerating the modernisation of Europe's economy. The new legislation under the Clean Energy Package will allow European consumers, workers and business to benefit fully from the energy transition to a low-carbon and energy efficient economy while ensuring that this transition is achieved in a socially fair manner.

Challenges and remedial actions

One of the key challenges for DG ENER in 2019 was to ensure an effective implementation of the Governance regulation, which was published in the Official Journal on 21 December 2018 with an entry into force three days later. This Regulation constitutes the first horizontal piece of legislation at EU level covering all energy sectors and including climate policy. The new legislation fixed a deadline for the Member States to notify their draft National Energy and Climate Plans (NECPs) by 31 December 2018, only one week after entry into force, but also a six months deadline for the Commission to assess the draft NECPs. It was therefore crucial for DG ENER to ensure that Member States would submit their draft Plans on time in order to guarantee sufficient time for the EU-wide analysis and assessment as well as to be prepared for the first-ever assessment of such comprehensive plans. For this reason, DG ENER put several measures in place both to reinforce the iterative dialogue with the Member States, for example via the intensification of Technical Working Groups with national representatives and numerous bilateral contacts, as well as to establish new internal processes and structure ensuring the timely and in-depth assessment of the draft NECPs. In those tasks, DG ENER demonstrated to skilfully master and control the novelties introduced by the Regulation, creating the right preconditions for the attainment of the EU level energy and climate targets for 2030 as well as the objectives of the Energy Union.

³ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank, A Clean Planet for all. A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy; COM(2018) 773 final, 28 November 2018.

b) Key Performance Indicators (KPIs)

DG ENER has chosen five key performance indicators in its Strategic Plan 2016-2020 to monitor the policy performance and the DG's most significant achievements over time.

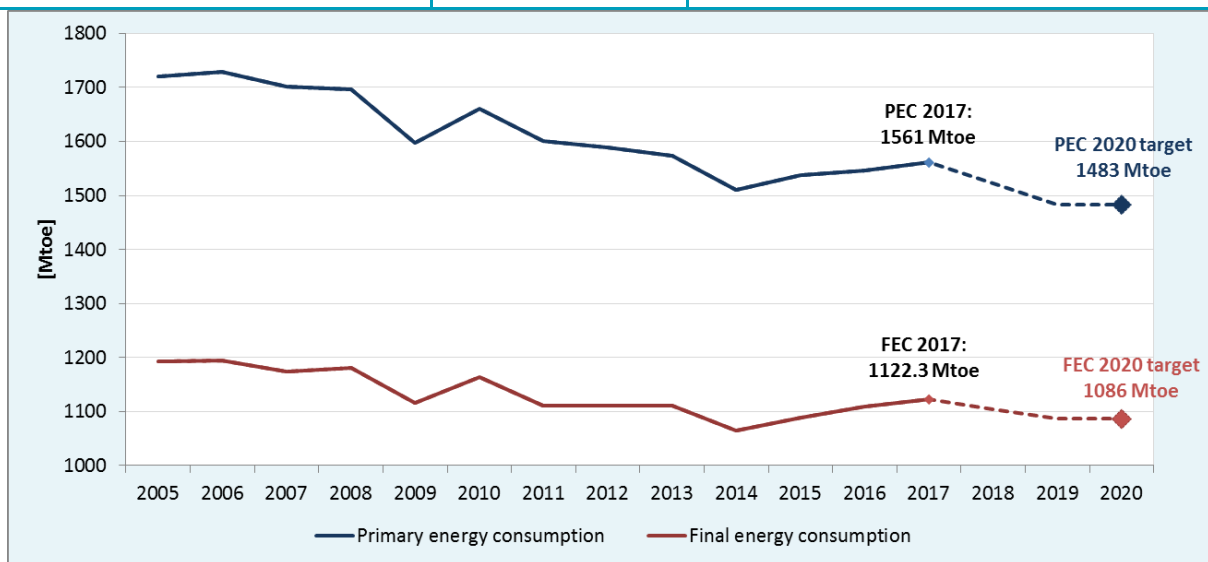
DG ENER's Key Performance Indicators:																																						
Key Performance Indicator	Target	Latest known results as per Annual Activity Report																																				
	(or milestones)																																					
<p>Most relevant KPI 1</p> <p>Renewable energy share (RES) in gross final EU energy consumption (%)</p> <p>(source: Annex 1b of Dir. 2009/28/EC)</p>	20% by 2020	RES share in 2018: 18% (Eurostat data) ⁴																																				
<table border="1"> <caption>Renewable Energy Share in Gross Final Energy Consumption (%)</caption> <thead> <tr> <th>Year</th> <th>Renewable Energy Share (%)</th> </tr> </thead> <tbody> <tr><td>2004</td><td>8.5%</td></tr> <tr><td>2005</td><td>9.1%</td></tr> <tr><td>2006</td><td>9.7%</td></tr> <tr><td>2007</td><td>10.6%</td></tr> <tr><td>2008</td><td>11.3%</td></tr> <tr><td>2009</td><td>12.6%</td></tr> <tr><td>2010</td><td>13.1%</td></tr> <tr><td>2011</td><td>13.4%</td></tr> <tr><td>2012</td><td>14.7%</td></tr> <tr><td>2013</td><td>15.4%</td></tr> <tr><td>2014</td><td>16.2%</td></tr> <tr><td>2015</td><td>16.7%</td></tr> <tr><td>2016</td><td>17.0%</td></tr> <tr><td>2017</td><td>17.5%</td></tr> <tr><td>2018</td><td>18%</td></tr> <tr><td>2019</td><td>-</td></tr> <tr><td>2020</td><td>20%</td></tr> </tbody> </table>			Year	Renewable Energy Share (%)	2004	8.5%	2005	9.1%	2006	9.7%	2007	10.6%	2008	11.3%	2009	12.6%	2010	13.1%	2011	13.4%	2012	14.7%	2013	15.4%	2014	16.2%	2015	16.7%	2016	17.0%	2017	17.5%	2018	18%	2019	-	2020	20%
Year	Renewable Energy Share (%)																																					
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2020	20%																																					
<p>Most relevant KPI 2</p> <p>Energy Efficiency</p> <p>Primary energy savings achieved in 2020 measured against the baseline (%)</p> <p>(source: Article 3 of Directive 2012/27/EU and NEEAPs 2014)⁵</p>	20% by 2020	1 552 Mtoe in 2018																																				
<p>Final energy consumption not</p>	<p>Primary energy consumption not more than 1 483 Mtoe</p> <p>Final energy consumption not</p>	<p>In 2018, the primary energy consumption of the Union was only 4.65% above its primary energy consumption target of 1 483 Mtoe for 2020.</p> <p>In 2018, the final energy consumption (1 124 Mtoe) of the Union was 3.5% above the final energy consumption target of 1 086 Mtoe for 2020⁶.</p>																																				

⁴ Data for 2017 is still provisional.

⁵ Baseline is PRIMES 2007 in 2020, which includes policies to be implemented up to 2006 with an oil price of \$61 per barrel and reference year 2005. Calculated as Gross Inland Consumption minus Final Non-Energy Use Consumption. Source: Eurostat, Commission studies.

⁶ Data for 2018 is not yet available.

more than 1 086 Mtoe



Most relevant KPI 3

Degree of Energy prices convergence in the EU⁷

Convergence of retail electricity and gas prices both for industry and household in the EU internal energy market.

Latest data 12/2019:

Relative standard deviation for industrial consumer having a medium level of annual electricity consumption (Band IC, between 500 MWh and 2,000 MWh, prices without recoverable taxes and levies):

- 2012 December 0,3095
- 2013 December 0,2733
- 2014 December 0,2839
- 2015 December 0,2529
- 2016 December 0,2487
- 2017 December 0,2505
- 2018 December 0,2813
- 2019 December 0,2209

(ENER.A4 estimates for 2019 based on HICPs)⁸

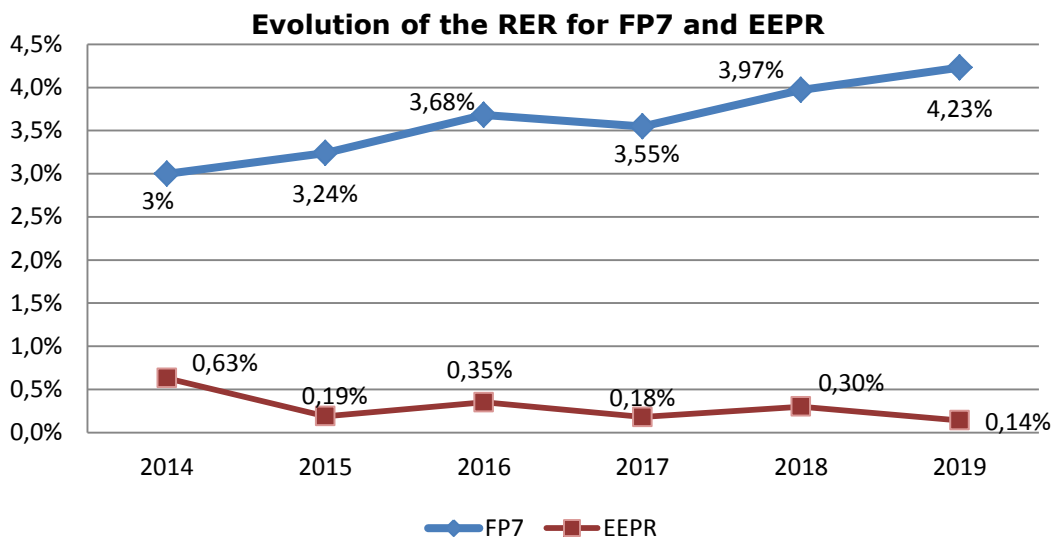
Relative standard deviation for industrial retail natural gas prices for medium level of annual gas consumption (Band I4, between 2,778 MWh and 27,880 MWh, prices without recoverable taxes and levies):

- 2012 December 0,1831
- 2013 December 0,1363
- 2014 December 0,1294
- 2015 December 0,1313

⁷ These indicators represent the ratio of the most and the least expensive EU Member State regarding the retail electricity and gas prices households and industrial consumers pay (data are given half-yearly, the last available one represents the first half of 2014). The aim of presenting of this indicator is to provide a metrics for the convergence of retail electricity and gas prices in the EU internal energy market, decreasing ratios should result in better convergence.

⁸ While there is no single reason for the slowdown of electricity price convergence in 2018, wholesale electricity prices that strongly influence energy supply costs within retail prices also showed larger deviations in this period, mainly due to a general increase in fuel costs and local events affecting wholesale market prices, which filter to retail prices as well. Also, price regulation at retail level may partially eliminate the impact on the wholesale markets and thus result in an increasing divergence between countries where it is applied and where it is not applied, resulting in an observed higher standard deviation of retail prices.

		2016 December 0,1521 2017 December 0,1662 2018 December 0,1569 2019 December 0,1235 (ENER.A4 estimates for 2019 based on HICPs) ⁹
Most relevant KPI 4 Security of supply Member States (MS) having reached the 10% electricity interconnection target¹⁰	26 MS by 2020	17 Member States at or above 10% electricity interconnection target in 2019
Most relevant KPI 5 Residual error rates (EEPR and FP7) (source: DG ENER SRD.1)	<2%	RER EEPR 2019: 0.14% RER FP7 2019: 4.23% DG ENER retains only a limited exposure to directly managed FP7 projects. DG ENER has lifted its reservation due to the newly introduced the de-minimis rule (see section 2.1 for details). The underlying exposure is estimated to represent 0.08% of DG ENER payments in 2019.



c) Key conclusions on financial management and internal control (executive summary of section 2.1)

In accordance with the governance arrangements of the European Commission, (the staff of) DG ENER conducts its operations in compliance with the applicable laws and regulations, working in an open and transparent manner and meeting the expected high

⁹ The reasons for the increased standard deviation between 2016 and 2018 are that there were some statistical outliers with unusually high or low prices reported for these years that lead to an increase in the standard deviation.

¹⁰ The European Council of October 2014 called for all Member States to achieve interconnection of at least 10% of their installed electricity production capacity by 2020. This means that each Member State should have in place electricity cables that allow at least 10% of the electricity that is produced by their power plants to be transported across its borders to its neighbouring countries.

level of professional and ethical standards.

To ensure the achievement of policy and management objectives, the Commission has adopted a set of internal control principles, based on international good practice. The financial regulation requires that the organisational structure and the internal control systems used to implement the budget be set up in accordance with these principles. DG ENER has assessed its internal control systems during the reporting year and has concluded that it is effective; the components and principles are present and functioning well overall. Please refer to AAR section 2.1.3 for further details.

In addition, DG ENER has systematically examined the available control results and indicators, including those for supervising entities to which it has entrusted budget implementation tasks, as well as the observations and recommendations issued by the internal auditor and the European Court of Auditors. These elements have been assessed to determine their impact on management's assurance about the achievement of the control objectives. Please refer to Section 2.1 for further details.

In conclusion, management has reasonable assurance that, overall, suitable controls are in place and working as intended; risks are being appropriately monitored and mitigated; and necessary improvements and reinforcements are being implemented. The Director General, in his capacity as Authorising Officer by Delegation has signed the Declaration of Assurance.

d) Provision of information to the Commissioner

In the context of the regular meetings during the year between the DG and the Commissioner on management matters, the main elements of this report and assurance declaration, have been brought to the attention of Commissioner Kadri Simson, responsible for Energy.

1. KEY RESULTS AND PROGRESS TOWARDS THE ACHIEVEMENT OF THE COMMISSION'S GENERAL OBJECTIVES AND DG'S SPECIFIC OBJECTIVES



1.1 General Objectives and achievements

The Strategic Plan for DG ENER for the period from 2016-2020¹¹ set out the general objective for DG ENER to promote a resilient Energy Union with an ambitious climate policy at its core. The Energy Union itself is composed of five dimensions¹² that are closely interrelated and mutually reinforcing and that were specified in the Energy Union Framework Strategy.

The Strategic Plan of DG ENER identified the following threefold scope of the Energy Union. These objectives are also the general objectives for European energy policy:

- **Security of Supply:** To enhance the conditions for safe and secure energy supply in a spirit of solidarity between Member States, ensuring a high degree of protection for European citizens;
- **Sustainability:** to promote sustainable energy production, transport and consumption in line with the Europe 2020 strategy's targets and with a view to the 2030 Energy and Climate Framework;
- **Competitiveness:** To contribute to setting up an energy market providing citizens and businesses with affordable energy, competitive prices and technologically advanced energy services.

In line with the Energy Union Framework Strategy¹³ and to fully reflect its five dimensions, DG ENER's Strategic Plan for 2016-2020 defined the following **six specific objectives** in order to meet all three overall objectives of energy policy:

- 1) Contributing to security of supply, based on solidarity and trust;

¹¹ Strategic Plan 2016-2020, DG ENER, available at:

http://ec.europa.eu/atwork/synthesis/amp/doc/ener_sp_2016-2020_en.pdf

¹² These five dimensions are: Energy security, solidarity and trust; a fully integrated European energy market; energy efficiency contributing to moderation of demand; decarbonising the economy; and research, innovation, and competitiveness.

¹³ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank; A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy; COM(2015) 80 final; Brussels, 25 February 2015.

- 2) Further work towards a well-functioning and fully integrated internal energy market, including with interconnections;
- 3) Promoting the moderation of energy demand;
- 4) Promoting the decarbonisation of the EU energy mix and the increase of energy production from low Carbon Energy Sources, in particular renewables;
- 5) Tapping the job and growth potential of the energy sector and further developing energy technologies (Horizon 2020), including ITER and the safe and secure use of nuclear energy;
- 6) Ensure the implementation and follow-up on the overall Energy Union Framework Strategy.

Overall, 2019 was an intense and important year for the delivery for the Energy Union. It all started in 2016, notably with the adoption of the Clean Energy for All Europeans Package— the largest package of legislative proposals regarding energy policy ever presented by the Commission. This culminated in 2018 with the entry into force of Energy Performance in Buildings Directive, Energy Efficiency Directive, Renewables Directive and the Governance Regulation. The remaining legislative files (i.e. Electricity Risk Preparedness Regulation, Electricity Regulation and Directive, Agency for Co-operation of Energy Regulators (ACER) Regulation) entered into force in 2019 and the focus of DG ENER was to start the implementation of the new legal provisions. The latter included the first ever assessment of the draft National Energy and Climate Plans (NECPs) and Member States contribution to the EU 2030 targets.

Clean energy for all Europeans package - legislative process

	European Commission Proposal	EU Inter-institutional Negotiations	European Parliament Adoption	Council Adoption	Official Journal Publication
Energy Performance in Buildings	30/11/2016	Political Agreement	17/04/2018	14/05/2018	19/06/2018 - Directive (EU) 2018/844
Renewable Energy	30/11/2016	Political Agreement	13/11/2018	04/12/2008	21/12/2018 - Directive (EU) 2018/2001
Energy Efficiency	30/11/2016	Political Agreement	13/11/2018	04/12/2018	21/12/2018 - Directive (EU) 2018/2002
Governance of the Energy Union	30/11/2016	Political Agreement	13/11/2018	04/12/2018	21/12/2018 - Regulation (EU) 2018/1999
Electricity Regulation	30/11/2016	Political Agreement	26/03/2019	22/05/2019	14/06/2019 - Regulation (EU) 2019/943
Electricity Directive	30/11/2016	Political Agreement	26/03/2019	22/05/2019	14/06/2019 - Directive (EU) 2019/944
Risk Preparedness	30/11/2016	Political Agreement	26/03/2019	22/05/2019	14/06/2019 - Regulation (EU) 2019/941
ACER	30/11/2016	Political Agreement	26/03/2019	22/05/2019	14/06/2019 - Regulation (EU) 2019/942

None of the significant risks for the DG identified in the Annual Management Plan 2019 materialised in the course of 2019.

1.2 Specific Objective 1: Contribution to security of supply, based on solidarity and trust

As the EU remains vulnerable to external energy shocks and disruption caused by accidents, disaster or attacks, energy security is one of the five dimensions of the Energy Union. 2019 was an important year to agree on a new Regulation on Risk Preparedness in the electricity sector, to take measures on cybersecurity and to implement the new Regulation on Security of Gas Supply.

An important milestone was the adoption by the co-legislators of the **Regulation on Risk Preparedness in the electricity sector**¹⁴, which aims at ensuring that Member States work together to prevent and manage electricity crises in a spirit of solidarity and transparency. The Regulation also introduces common methodologies at European level to identify crisis scenarios and to assess short term and seasonal adequacy at European or regional level, which is key to balance the electricity network and avoid shortage. To implement the regulation, DG ENER prepared a Recommendation on the financial, technical and legal arrangements in case of mutual assistance between Member States. DG ENER organised exchange of information between Member States and investigations of several cross-border incidents that affected the stability and the security of the continental grid. The exchange took place through the Electricity Coordination Group or ad-hoc fora with the concerned transmission system operators.

To protect critical infrastructure, DG ENER adopted a **Recommendation on cybersecurity** in energy to provide guidance to the energy sector to increase its preparedness to possible cyberattacks. DG ENER also published a report of the Smart Grids Task Force – Expert Group 2 that explored the key elements of the future network code envisaged by the new Electricity Regulation. It focused on cybersecurity in the electricity sector, provided support to Member States to implement the Directive on security of network and information systems in the energy sector, and organised a series of events to raise awareness amongst energy operators and Member States about the cyber-risks. DG ENER also participated in an **exercise organised under the auspices of G7** to simulate cyberattacks against the energy sector.



DG ENER prepared the report on the evaluation of the **Offshore Safety Directive** in view of its adoption and its submission to the Parliament and the Council. In parallel, DG ENER worked with the Oil Coordination Group to implement the recently adopted **Directive on emergency oil stocks** and to coordinate measures to mitigate disruption on the Druzhba pipeline with impacts on the supply of crude oil to several Member States in May 2019.

¹⁴ Proposal for a Regulation of the European Parliament and of the Council on risk-preparedness in the electricity sector and repealing Directive 2005/89/EC; COM(2016) 862 final, Brussels, 30 November 2016.

European Commission @EU_Commission · Feb 13, 2019
 An integrated gas market is a cornerstone of the #EnergyUnion. Our new rules aim to ensure that pipelines with third countries comply with EU gas law, improving security of supply and the functioning of the gas market.
 See how #EUdelivers → europa.eu/If96UY



To implement the **Regulation on the safeguard of gas security of supply**, the Commission prepared 20 formal opinions on the national preventive and emergency plans that Member States notified and launched infringement procedures for the cases of non-compliance. The Commission analysed, with the Gas Coordination Group, the preparedness of the EU gas system to possible disruptions from **Russia through Ukraine** ahead of the winter 2019/2020.

Finally, the Commission continued the work to enhance regional cooperation towards strengthening of the existing cross-border interconnections, increasing security of energy supply and integration of renewable energy. To give the future direction for BEMIP high-level group, the revised and updated Action Plan was finalised. Additionally, an Implementation Roadmap regarding the synchronisation process of the three Baltic States with the continental European network was signed in June 2019 as a follow-up to a 2018 Political Roadmap, towards fulfilling the deadline for synchronisation in 2025. The renewed Work Programme of the North Seas energy cooperation for the period 2020-2023 was adopted on 4 December 2019 in order to further support ambitious off-shore wind capacity development in the Northern Seas. The work of the Commission led to the signing of an interconnection agreement between Bulgaria and Romania and the marketing of the Trans-Balkan pipeline T1 from the South to the North within the CESEC process. As a result, the liquidity of the gas market in South East Europe increased, leading to more affordable and secure gas supplies.

In 2019, DG ENER has continued to develop the international dimension of the Energy Union insisting notably on the promotion of the clean energy transition whilst reinforcing diversification of sources, routes, and suppliers, thus enhancing energy security of the EU.

The Commission pursued its efforts to support **Ukraine** in its gas reform and unbundling to ensure an efficient **gas transit**. The trilateral dialogue with and between Russia and Ukraine continued and led to **an agreement on principles of gas transit through Ukraine as of 1 January 2020**.

Work with international organisations like **G20, G7 and IEA** focused notably on addressing energy transitions towards cleaner, more flexible and transparent systems. Canada hosted in May the **10th Clean Energy Ministerial (CEM)** and the **4th Mission Innovation Initiative (MI)**.

In 2019, the first EU-US Energy Council High Level Business Forum on LNG and the first Industrial Forum on Small Modular Reactors (SMR) took place and allowed for a substantial exchange of views on the opportunities for transatlantic energy cooperation. In Asia, the **EU's energy cooperation with China, India and Japan** registered further progress with the implementation of the Joint Communication **"Connecting Europe and Asia: Building blocks for an EU Strategy"**. In Latin America, the first **Energy Dialogue with Argentina** was held with very positive results. In November, DG ENER in cooperation with DG DEVCO supported the operationalisation of the **EU-Africa High Level Platform for Sustainable Energy Investments in Africa**.

Maroš Šefčovič @MarosSefcovic · May 15, 2019
 A decisive milestone for EU-US coop on #LNG reached at the meeting b/w @JunckerEU & @realDonaldTrump in July 2018. Since then, US LNG export to the EU increased by 272%, over one third of US LNG now reaching Europe. A press point aboard Air Force One europa.eu/rapid/press-re...



In the **Neighbourhood South**, regional energy dialogue gained momentum within the Union for the Mediterranean framework. While the **EU strategic energy partnership with Algeria** has been affected by the political situation, the **EU-Egypt relations** continued via a new Memorandum of Understanding on Energy.

In the framework of the **Eastern Partnership**, energy cooperation continued via the Eastern Partnership Platform 3, the energy panel and the first Eastern Partnership Ministerial meeting. In the **Caspian and Central Asia region**, the Commission continued to support the development of the Southern Gas Corridor (SGC) and the Trans-Anatolian gas pipeline (TANAP) was inaugurated in November. With regard to the **Energy Community**, during the Permanent High Level Group and 17th Ministerial Council, the Contracting Parties and the EU adopted the Network Code on Gas Balancing of Transmission Networks and agreed the Commission proposal for the draft 2019 Policy Guidelines on 2030 targets and climate neutrality.

1.3 Specific Objective 2: Further work towards a well-functioning and fully integrated internal energy market, including with interconnectors



2019 was a major year for advancing the important work towards a well-functioning and fully integrated internal energy market benefiting EU citizens and industry. DG ENER facilitated the political agreement on an **amended Gas Directive**¹⁵. The amendment clarified that the Gas Directive and Regulation also apply to interconnectors with third countries, both as regards connections crossing sea and land borders. It ensures a level playing field in the treatment of gas pipelines

entering the EU and pipelines on EU territory. DG ENER implemented the new **internal electricity market rules**¹⁶ and continued to implement existing market and system operation related rules (network codes). DG ENER also moderated actively several agreements amongst regulators necessary under the network codes, with a view to further deepening the internal electricity market. This allowed, inter alia, to expand short-term electricity trading (so-called "intraday trading") to 21 EU Member States by way of an extension of the Single EU Intraday Electricity Platform ("SIDC") on 19 November 2019. To protect security of electricity supply, the Commission worked to draw lessons from the incidents that threatened stability in 2019.

This is important in order to deliver a secure, sustainable and cost-effective energy system across the entire EU and to ensure full and effective integration of the renewable energy needed to meet the EU's targets and to allow for the secure supply of electricity and gas.

The Smart Grids Task Force concluded reports in June 2019 with stakeholder's recommendations for the network codes on **cybersecurity and demand-side flexibility as well as for the implementing act on interoperability requirements for data access**. In 2019, DG ENER adopted **Recommendations for the**

¹⁵ Directive (EU) 2019/692 of the European Parliament and of the Council of 17 April 2019 amending Directive 2009/73/EC concerning common rules for the internal market in natural gas.

¹⁶ Regulation (EU) 2019/943 of the European Parliament and of the Council on the internal market for electricity (recast) of 5 June 2019. Directive (EU) 2019/944 of the European Parliament and of the Council on common rules for the internal market in electricity (recast); COM(2016) 864 final of 14 June 2019

Implementation of Sector-Specific Rules for Cybersecurity Aspects of Cross-Border Electricity Flows, on Common Minimum Requirements, Planning, Monitoring, Reporting and Crisis Management.

Energy4Europe @Energy4Europe · Oct 31, 2019
 EU energy infrastructure - Today's 4th list of Projects of Common Interest (PCI) is now available in all EU languages europa.eu/lwC44Gx (for English) and europa.eu/lFq678d (for other EU languages)
 #PCIlist #CEFEnergy



The Commission adopted the **fourth list of designated Projects of Common Interest (PCIs)** in October 2019. Electricity and smart grids account for more than 70% of the projects, mirroring the increasing role of renewable electricity in the energy system and the need for network reinforcements enabling the integration of renewables and more cross-border trade. The PCIs included in the list will be eligible for support under the CEF programme.

The **Connecting Europe Facility (CEF)** provided further financial support for key energy infrastructure projects in Europe with a total of €799.8 million allocated to 14 Projects of Common Interest (PCIs) in 2019 under the second 2018 CEF call and a total of €556 million allocated to 8 PCIs under the 2019 CEF call¹⁷. The **Innovation and Networks Executive Agency (INEA)** has prepared and signed 21 grant agreements in 2019 and at the end of the year was managing 74 ongoing actions. During 2019, 18 CEF Energy actions were closed, while ongoing projects received €322.5 million in disbursements.

Throughout 2019 important and substantial progress was made regarding the Energy Union **enabling framework**:

- The Coal Regions in Transition Platform** is designed to assist Member States and regions in tackling the challenges of maintaining jobs and growth in communities affected by the planned and ongoing closure of coal mines and the commitment of some Member States to phase out coal. The Commission continued with the implementation of the initiative for coal regions in transition, as an enabling action of the Clean Energy Package focusing on 'just transition' in the EU coal regions. The Commission launched the Secretariat of the Initiative in February and organized three large-scale technical meetings in Brussels (April, July, October) and one high-level political meeting in Gorlitz, Germany (November), as well as a dedicated session at COP25 (December). Bilateral relations under the 'country team' process were continued for 20 regions taking part in the initiative.
- The Clean Energy for EU Islands Initiative** is now fully operational. The Commission continued to assist Member States in creating a stable framework for public and private investment in clean energy transition on islands, which should be finalised in 2020. The Commission oversaw the work of the dedicated Secretariat for the Initiative that provides direct support to islands. In 2019, 26 pilots and pioneer islands were selected to receive assistance to develop Clean Energy Transition Agendas.



¹⁷ Connecting Europe Facility (CEF) Programme Statement, Programme Implementation Update, Energy.

- **The Covenant of Mayors** passed the mark of 1000 in terms of cities committed to 2030 energy and climate targets and demonstrates multi-level governance in practice. It now covers the five continents under its global dimension. DG ENER continued to support the preparation of contracts for Regional Covenants in our Eastern and Southern neighbourhood, Canada, Latin America, Sub-Saharan Africa and Asia (South Asia, Japan) in close cooperation with DGs NEAR, DEVCO, CLIMA, JRC and FPI. The Commission launched the second phase of the Global Covenant initiative at COP-25 and a new regional Covenant in Canada.



- **The EU Energy Poverty Observatory** was launched by DG ENER to assist Member States in identifying, measuring and addressing energy poverty. The Commission organised the 11th Citizens' Energy Forum in Dublin in September. The event looked at ways of making beneficial new energy services more attractive to consumers. The Commission worked with Member State representatives to prepare for the development of Guidance on Energy Poverty.



These initiatives will be important building blocks of the Green Deal in particular its Just Transition and the European Climate Pact dimensions.

1.4 Specific Objective 3: Promoting the moderation of energy demand

As the revised **Energy Performance of Buildings Directive (EPBD)**¹⁸ entered into force on July 2018, work on the implementation and enforcement of the existing EPBD continued in 2019, with dialogues with the Member States on the conformity of their transposition and/or implementation.

The amended EPBD builds on two complementary objectives, which are to accelerate the renovation of existing buildings with a 2050 decarbonisation goal and to support the modernisation of all buildings thanks to smart technologies and e-mobility infrastructure.

¹⁸ Directive (EU) 2018/844 of the European Parliament and of the Council amending Directive 2010/31/EU on the energy performance of buildings.

In the course of 2019, DG ENER issued, in close cooperation with Member States, a



Recommendation on how to implement the revised provisions on building renovation and the decarbonisation of national building stocks by 2050, and a second Recommendation on the modernisation of buildings through smart building technologies and infrastructure for e-vehicle charging.

An important priority during the year was the preparation of the new Commission and the energy efficiency component of the **European Green Deal**. This included in particular preparatory work to ensure the inclusion of a new flagship initiative on

building renovation called the "renovation wave". It aims at boosting currently low renovation rates and speeding up the decarbonisation of the EU building stock to deliver on the climate neutrality objectives by 2050.

As regards energy efficiency, the amendment of the **Energy Efficiency Directive (EED)**¹⁹ entered into force at the end of 2018. In 2019, the Commission reviewed and simplified Annex VIII and IX of the EED that set the requirements for national heating and cooling policies.

In September 2019, the Commission adopted three **Recommendations** containing guidance for Member States on how to implement the new provisions concerning (i) Annual energy saving obligation of 0.8% of final energy consumption to be achieved in the period of 2021-2030 (Article 7).

In the context of **monitoring the achievement of the EU energy efficiency targets for 2020**, the Commission services convened a Member States' Task Force to mobilise efforts to mitigate the risk of not meeting the EU target for 2020 due to growing energy consumption trends in the EU over the recent years. Within the Task Force, Member States and the Commission services were sharing best practices on increasing the effectiveness of current energy efficiency measures and introducing further short-term policy measures.

This approach was also discussed in the context of steering cohesion policy funding in the meetings of the **Energy and Managing Authorities (EMA) network**, which brings together representatives of national energy authorities with representatives of cohesion policy managing authorities dealing with energy. The Network aims to help EU countries make the best possible use of cohesion policy funding in high quality energy projects.

A political agreement on the new tyre labelling regulation was reached in November 2019 at the second trilogue with Council and European Parliament; its publication is foreseen in May 2020. The label highlights the fuel efficiency, noise and wet grip performance of tyres, along the same lines as the energy label and introduces the option of snow and ice pictograms. This will allow consumers to be better informed when buying tyres, outlining the potential to make savings in fuel consumption. At the same time, it drives manufacturers towards innovation in order to make their tyres more energy efficient, safer and quieter. The new label will apply from May 2021

¹⁹ Directive (EU) 2018/2002 of the European Parliament and of the Council amending Directive 2012/27/EU on energy efficiency

In the area of energy efficiency of products, the Commission adopted in March and October 2019, 14 **ecodesign and energy labelling regulations** after several years of preparation with stakeholders. These regulations are revising requirements for 7 product groups (refrigerators, washing machines, dishwashers, lighting products, electronic displays, electric motors and external power supplies) and address a new product group (refrigerating appliances with a direct sales function). An important change in the new ecodesign rules is the inclusion of elements to further enhance the reparability and recyclability of appliances, in line with the Ecodesign Working Plan 2016-2019 to contribute to circular economy and climate objectives. Preparatory and review studies for product specific measures now systematically consider resource efficiency aspects. For the adopted energy labelling regulations, the introduction in the energy labels of a QR code enables consumers to get additional (non-commercial) information by scanning the code with a common smartphone as of 1 March 2021. These 14 adopted regulations, plus 2 adopted by DG GROW, constitute the ecodesign and energy labelling packages, which is expected to deliver 167 TWh of final energy savings per year by 2030.



Significant progress was made concerning the **financing of energy efficiency**. The number of projects receiving project development assistance (PDA) increased, in particular under the European Local Energy Assistance (ELENA) facility, helping project promoters prepare bankable projects.

Finally, in collaboration with the United National Environmental Programme Financial Initiative (UNEP FI), the

Commission steered the work of the **Energy Efficiency Financial Institutions Group (EEFIG)**. A working group was set up, focussing on taxonomy and green tagging – it provided expert input on energy efficiency to the Technical Experts Group on Sustainable Finance, in particular for the buildings sector, and analysed the existing green tagging practices.

DG ENER also secured the leading of the International Partnerships for energy efficiency cooperation (IPEEC) and its transition into an energy efficiency HUB hosted by the International Energy Agency (IEA).

In its work on energy efficiency but also regarding the general objective of competitiveness, DG ENER is supported by the **Executive Agency for SMEs (EASME)**. All energy efficiency activities entrusted to EASME (Horizon 2020 Energy Efficiency calls and Other Actions) were implemented according to the 2019 Agency's work programme, including all payments. The central evaluation of the main **Horizon 2020 Energy Efficiency Call 2019** finished on 22 November leading to 57 new energy efficiency projects supported with a budget of EUR 112.9 million. In addition, the dedicated call to create a European City Facility (EUR 16 million) was implemented by EASME at the beginning of 2019. EASME is also entrusted with the implementation of three **Concerted Actions** (as calls to identified beneficiaries) with the objective to support the implementation of the Energy Performance of Buildings Directive, the Energy Efficiency Directive and the Renewable Energy Sources Directive by means of knowledge and good

practice exchange between Member States.

1.5 Specific Objective 4: Promoting the decarbonisation of the EU energy mix and the increase of energy production from low Carbon Energy Sources, in particular renewables

In the area of decarbonisation and renewable energy, work in 2019 focused on preparing the implementation of the **recast of the Directive on the promotion of the use of energy from renewable sources (REDII)**²⁰, together with the implementation of other Clean Energy package's renewable relevant elements. REDII was published in the Official Journal on 21 December 2018 (Directive EU/2018/2001), with a transposition deadline by 30 June 2021, concluding a more than three years process of preparation, negotiation and adoption.

Implementation work has included inter alia the adoption of a Delegated Regulation setting out the criteria for both identifying high-ILUC risk feedstock and for certifying low-ILUC risk biofuels, bioliquids and biomass fuels (adopted on 13 March), and the preparation of several delegated and implementing acts, including an implementing act for the establishment and functioning of the new renewables financing mechanism (to be adopted in 2020).

Another priority during the year was the implementation of the current Directive on the promotion of the use of energy from renewable sources (RED). DG ENER also assessed the transposition of the ILUC Directive (Directive EU/2015/2013), after the transposition deadline of 10 September 2017.

A third important priority for promoting the decarbonisation of the EU energy mix and the increase of energy production from low Carbon Energy Sources during the year has been the preparation of the new Commission and the **European Green Deal**. This has included in particular relevant preparatory work to facilitate the smart integration of the electricity, heating and cooling, transport and industry sectors in order to speed up the deployment of clean energy across the economy and deliver climate neutrality cost-effectively.

DG ENER also launched in 2019 the **"Hydrogen Energy Network"**, an informal network of experts from Energy Ministries, with the aim to support Member States in exploiting the opportunities offered by Hydrogen. The Network aims at providing Member States with a platform to exchange information and best practices as to the use of hydrogen as an energy carrier, to facilitate a better common understanding of the issue in the energy policies. Two meetings took place in 2019, in June and in November.



Furthermore, DG ENER continued its work towards enhanced **regional cooperation** between Member States on support schemes, including the use of the cooperation mechanisms envisaged in the Renewable Energy Directive. As it is time to meet the 2020 targets, several Member States have informally approached DG ENER in order to obtain a better understanding of possibilities of statistical transfers. Within this context, work has focused during 2019 in co-decision negotiations of the **revised Connecting Europe**

²⁰ Directive (EU) 2018/2001 of the European Parliament and of the Council on the promotion of the use of energy from renewable sources (recast).

Facility (CEF), which includes under its scope cross-border projects in the field of renewable energy.

EU **international cooperation** on renewable energy continued to grow in 2019. This included bilateral dialogues and exchanges with partner countries such as specific work with Japan, South Korea and Pakistan for example. Work at regional scale included discussions with the Energy Community on 2030 targets and the renewable energy potential for the CESEC (Central and South Eastern Europe Connectivity) region, as well as participation in the preparation of the EU-Africa Platform on Sustainable Energy Investments. Discussions also intensified on the external dimension of the island decarbonisation agenda and cooperation with small island states. Finally, DG ENER ensured a coordinated EU position for both the IRENA Council and General Assembly.



Commissioner for Energy Kadri Simson together with Director General of DG ENER Ditte Juul Jørgensen at IRENA Ministerial, January 2020.

1.6 Specific Objective 5: Tapping the job and growth potential of the energy sector and further developing energy technologies (Horizon 2020), including ITER and the safe and secure use of nuclear energy

1.6.1 Competitiveness

More and better targeted investments along the five dimensions of the Energy Union will translate into growth, jobs and help European industries to take advantage of business opportunities in other regions of the world. In 2019, DG ENER continued to support the Commission's efforts to make full use of available EU financial funds and instruments to further promote the clean energy transition.

Significant progress was made concerning the financing of energy efficiency, including under the **Smart Finance for Smart Buildings initiative**, launched by the Commission as part of the Clean Energy for All Europeans package. The number of projects receiving project development assistance (PDA) increased, in particular under the European Local ENergy Assistance (ELENA) facility, helping project promoters prepare bankable projects. During the course of 2019, DG ENER continued to deal with the daily operational management and increase in investments of the **European Energy Efficiency Fund (EEEF)** while supporting the organisation of its conversion to a full-fledged Alternative Investment Fund that would allow it to increase its capital by issuing debt. Ongoing efforts to liaise and coordinate with EIB and the EBRD continued throughout the year, to facilitate their increased focus and spending on sustainable energy projects.

On 9 January 2019, DG ENER adopted the 2018 **energy prices and costs report** and presented it to stakeholders to get feedback and started preparations of the next (2020) energy prices and costs report. The preparations included inter alia a reflection on the content and scope of the report in view of the policy priorities of the new Commission and starting the procurement procedure of the external study, which will feed into the next report.

1.6.2 Research and Innovation

Based on the 14 Implementation Plans previously endorsed in the frame of the **Strategic Energy Technologies Plan**²¹ (**SET Plan**), in 2019 DG ENER facilitated synergies between the Member States representatives of the SET Plan, the National Energy and Climate Plans (NECP) Governance and the Innovation Fund Expert Group to reinforce the link between energy and research policy at national level.

The drafting of the NECPs has been a good opportunity for Member States to make sure that their clean energy R&I priorities and actions are consistent with the SET Plan Implementation Plans, outlining investments toward the energy transition. Under the SET Plan action on batteries, a new federating entity has been created: the **Batteries Europe technology and innovation platform**, which has become the research and innovation coordination strand of the European Battery Alliance.



SET Plan @SETPlan_eu · Dec 17, 2019

The SET Plan annual report 2019 is online! [An overview of the pilot phase of the SET Plan monitoring process, presenting the state of the implementation of the SET Plan.](#) [setis.ec.europa.eu/newsroom/news/...](#) @EU_ScienceHub @Energy4Europe @EUScienceInnov



Under **Horizon 2020**, EU's research framework programme for the period 2014-2020, DG ENER put significant efforts in the revision and implementation of the Work Programme 2018-2020, adopted in July. The EUR 380 million supervised by DG ENER under Horizon 2020 Work Programme 2019 were mainly disbursed under open calls for proposals covering "Smart citizen centred energy system", "Smart Cities and Communities", "Energy efficiency", "Smart and clean energy for consumers" and "Fast track to innovation for energy". In 2019, 20 new projects were selected under smart energy systems, including one project supporting the energy transition of islands. In addition, three Lighthouse projects were selected under the Smart Cities call. The Energy Challenge has also contributed to joint call on digitisation, seeking big data solution for energy.

InnovFin Energy Demonstration Projects, a financial instrument designed by the Commission together with the European Investment Bank, has currently a portfolio of seven projects corresponding to EUR 191 million of EU support (loan or equity-type) and EUR 393 million of project costs.

In addition, DG ENER continued to follow FP7 legacy projects and the implementation of the remaining projects under the **European Energy Programme for Recovery (EEPR)**. An EEPR offshore wind project was successfully completed in 2018 while two other projects will be concluded respectively by the end of 2019 and in June 2020.

In addition, DG ENER continued to follow FP7 legacy projects and the implementation of the remaining projects under the **European Energy Programme for Recovery (EEPR)**. An EEPR offshore wind project was successfully completed in 2018 while two other projects will be concluded respectively by the end of 2019 and in June 2020.

With regard to the **international collaboration** on clean energy technology development, a series of events and initiatives have been put forward in 2019 in the context of Clean Energy Ministerial (CEM), Mission Innovation (MI), through the various Technology Collaboration Programmes (TCPs) and the Clean Energy Transition Programme of the International Energy Agency (IEA). DG ENER on behalf of



Kadri Simson @KadriSimson · Dec 10, 2019

Opening the EU Energy Day this morning: "The EU is driven by the sense of urgency in the face of the climate crisis. We have lost the luxury of time. We must now embrace, plan and lead the clean energy transformation." #COP25Madrid



²¹ Communication from the Commission towards an Integrated Strategic Energy Technology (SET) Plan: Accelerating the European Energy System Transformation; C(2015) 6317 final; Brussels 15 September 2015.

the Commission, participated at the CEM and MI Ministerial meetings, and joined as co-leader the CEM Hydrogen initiative, and as observer the CEM CCUS Initiative. For Mission Innovation specifically the EU continued efforts in steering work and in co-leading two of the Innovation challenges (Conversion of sun light to fuels; Affordable heating and cooling of buildings - the latter led by DG ENER). As regards COP25, DG ENER organised the EU Energy Day, which included a session on Accelerating Innovation for the European Green Deal.

DG ENER has also continued the emphasis on **Smart Cities**, dedicating greater attention to the energy system approach, including energy storage, e-mobility, decarbonisation of buildings and digitalisation. The European Innovation Partnership on Smart Cities and Communities, will become an all new merged website, bringing together cities, industry, citizens and the financing sector to improve urban life through market rollout of bankable, replicable, sustainable, integrated innovative projects, embracing the intersection of Energy, ICT and Transport.

1.6.3 Nuclear Energy (Promoting the safe and secure use of nuclear energy and ensuring the peaceful use of civil nuclear materials for their intended purposes)

In 2019, work continued to ensure timely transposition and effective implementation of the EU legal framework on nuclear safety, responsible and safe management of spent fuel and radioactive waste, and the radiation protection of workers and the public.

The Commission published two reports to the Council and the European Parliament on the implementation of radioactive waste and spent fuel management policies in the EU²².

The **Nuclear Decommissioning Assistance Programmes (NDAP)** in Bulgaria, Lithuania, and Slovakia continued to reduce substantially nuclear and radiation safety risks related to the concerned reactors²³. The NDAP reported good progress in all three sites, in particular Bohunice (Slovakia) with the dismantling of large components in the reactor building, and Ignalina (Lithuania) with the steady and continuous removal of spent-fuel assemblies to a dedicated safe facility. More details on the implementation of this programme and the forthcoming work can be found in the programme statements for the NDAP.

In 2019, special attention was given to the topic of long-term operation (LTO) of nuclear power plants in the framework of the follow-up of the **first Topical Peer Review (TPR)** on ageing management²⁴ and of two major stakeholders' events, namely the Prague ENEF Conference in April and the fifth ENSREG Conference in June, to which DG ENER contributed. Another key topic is the availability of new safe reactor technologies, in particular in view of the future introduction and licensing of Small Modular Reactors



²² COM(2019) 632 final and COM(2019) 633 final.

²³ Regretfully, a work related accident occurred in Bulgaria in December, whereby two workers passed away during construction works with no radiation or nuclear safety implication.

²⁴ The Topical Peer Review (TPR) on 'Ageing management of nuclear power plants and research reactors is the most important safety-related exercise after the post-Fukushima stress tests in Europe: <http://www.ensreg.eu/eutopical-peer-review>. The revised Nuclear Safety Directive introduced a European system of topical peer reviews for delivering continuous improvement to the safety of nuclear installations.

(SMRs). The Commission hosted the first High-Level Industrial Forum on SMRs²⁵, co-organised with the U.S. Department of Energy, on 21 October in Brussels.

With regard to the **external dimension of nuclear energy policy**, the Commission continued to promote actively the highest levels of nuclear safety also outside the EU. The main attention during the past year was the follow-up of stress tests conducted in Belarus in 2018 and in Armenia in 2017, in close cooperation with ENSREG. Civil nuclear safety cooperation with Iran under Annex III of the **Joint Comprehensive Plan of Action (JCPoA)** continued well in spite of the US's withdrawal from the JCPoA. DG ENER organised, in cooperation with other Commission services and the EEAS, several seminars in Luxembourg and Tehran covering various aspects of nuclear safety and nuclear law, as well as an expert visit to the Kozloduy (BG) decommissioning site.

The Commission presented the **Euratom Report on the implementation of the Convention on Nuclear Safety (CNS)**, in preparation for the eighth Review Meeting of the Contracting Parties to the Convention. DG ENER coordinated the Euratom contribution to Brexit-related activities in preparation of the UK's withdrawal and negotiations with the UK on future relations.

DG ENER also followed and supported the inter-institutional negotiations on the proposals for the continued support to decommissioning activities in Lithuania, Bulgaria, Slovakia and the JRC facilities (€ 1.02 billion) and to ITER project (€ 6.07 billion) under the new Multiannual Financial Framework (MFF) 2021-2027.

1.6.4 Developing Fusion Technologies (ITER)

Besides fission technologies, the development of **fusion as a future energy source** received much attention and efforts in 2019. The construction of the ITER project continues to progress in line with the current schedule towards achieving First Plasma in 2025. The completed work scope up to First Plasma has progressed from 58.7% (end of October 2018) to 65.9% (end of November 2019).

In line with the ITER's Programme Statement, European contractors completed in 2019 the walls and floors of the Tokamak Building, which will house the device. This represents a major milestone for the project, approximately 5 years after the first pouring of concrete of the Building's basement. Construction is well advanced on the Crane Hall, which will enlarge the Tokamak building to accommodate the cranes that will move the components during assembly. The first and second modules of its roof were lifted into place by Fusion for Energy (F4E) on 4 December 2019.



In November 2019, at the **25th ITER Council meeting**, the ITER Council reviewed the recommendations of an In-Depth Independent Review on the IO's Assembly and Installation Strategy, carried out by independent experts. The ITER Council took note of the final report, which identified concrete actions to ensure that the assembly and installation move forward in the most efficient way possible and do not create delays or cost increases, and requested the IO to complete the action plan addressing the report's recommendations.

²⁵ https://ec.europa.eu/info/events/eu-us-high-level-forum-small-modular-reactors-smr-2019-oct-21_en

Euratom (represented by DG ENER) also advanced preparatory work with Japan on the conclusion of a Joint Declaration for the continuation of Broader Approach (BA) activities under the current bilateral agreement, which recognises the successful results and potential benefits of further cooperation for the ITER Project. More details on the implementation of this programme and the forthcoming work can be found in ITER's programme statement.

1.7 Specific Objective 6: Implementation and follow-up on the overall Energy Union Strategy

DG ENER has focused its work throughout 2019 on starting implementation of the Clean Energy for All Europeans package and implementing EU energy legislation. The **Regulation on the Governance of the Energy Union and Climate Action**²⁶ was published in the Official Journal on 21 December 2018 (Regulation 2018/1999) and the first deadline for the Member States to notify their draft Plans was already on 31 December 2018. Following the submission of all the plans, already by February 2019, DG ENER was, together DG CLIMA, in the lead for the assessment of the first ever **draft National Energy and Climate Plans**, which took place during the first half of 2019 and was one of the key challenges for the entire DG in 2019. It was therefore crucial for DG ENER to ensure that Member States would submit their draft Plans on time in order to guarantee sufficient time for the EU-wide analysis and assessment as well as to be prepared for the first-ever assessment of such comprehensive plans. Based on this thorough assessment of all 28 draft Plans, DG ENER prepared a horizontal communication and 28 Staff Working Documents, accompanied by recommendations to all Member States, all adopted by the Commission. As part of the iterative process between the Commission and Member States designed to submit final plans by end of 2019.

For this reason, DG ENER put several measures in place both to reinforce the iterative dialogue with the Member States, for example via the intensification of Technical Working Groups with national representatives and numerous bilateral contacts, as well as to establish new internal processes and structure ensuring the timely and in-depth assessment of the draft NECPs. In those tasks, DG ENER demonstrated to skilfully master and control the novelties introduced by the Regulation,



Paula Pinho @Pinhopau · Jun 21, 2019

One year later all 28 Member States have prepared draft Energy&Climate Plans and the European Commission assessed them in view of final Plans at the level of the EU ambitious energy & climate targets!



Theresa Griffin @TheresaEurope · Jun 20, 2019

It's exactly a year since we completed the #cleanenergy governance legislation where we asked each country to produce Energy & Climate Plans. They're falling short on 32% renewables & 32.5% energy efficiency. Every country needs to do better if Europe is to meet its climate goals



Energy4Europe @Energy4Europe · Sep 26, 2019

Representatives of the #NECPs technical WG met for the 1st time to look at ways on how to better integrate research, innovation & competitiveness in the national energy & climate plans so as to strengthen national efforts. [#SETPlan](https://europa.eu/1fP83Kr) #InnovationFund #H2020



²⁶ Regulation (EU) 2018/1999 of the European Parliament and of the Council on the Governance of the Energy Union, amending Directive 94/22/EC, Directive 98/70/EC, Directive 2009/31/EC, Regulation (EC) No 663/2009, Regulation (EC) No 715/2009, Directive 2009/73/EC, Council Directive 2009/119/EC, Directive 2010/31/EU, Directive 2012/27/EU, Directive 2013/30/EU and Council Directive (EU) 2015/652 an repealing Regulation (EU) No 525/2013; COM(2016) 759 final; Brussels, 30 November 2016.

creating the right preconditions for the attainment of the EU level energy and climate targets for 2030 as well as the objectives of the Energy Union.

In parallel, DG ENER supervised **technical assistance to Member States in the finalisation of the NECPs**, arranged several bilateral meetings with Member States, and continued the organisation of Technical Working Group (TWG) meetings (4 in 2019) with the EU Member States to support the timely and effective preparation of their final integrated national energy and climate plans. The work of the TWG was key for Member States' timely implementation of the first obligation in the Governance Regulation linked to the submission of Draft National Energy and Climate Plan. DG ENER also continued to follow, together with DG CLIMA, the contract on **technical assistance** to Member States for the preparation of the integrated NECPs.

Work continued on the preparation of **implementing and delegated acts** foreseen by the new Governance Regulation, inter alia an Implementing Act for **the establishment and functioning of the renewables financing mechanism** and an Implementing Act on the **reporting of progress on the National Plans**. DG ENER provided ongoing support to the quantitative and organisational preparations for support of the Governance regime, namely regarding the process for the assessing the draft national Energy and Climate Plans and establishing the **reporting and monitoring framework**. In this regard, DG ENER continued to work on the e-reporting platform under the Governance Regulation together with DG CLIMA and SG.

DG ENER was also responsible for the preparation of the **Communication "A more efficient and democratic decision making in EU energy and climate policy"**²⁷, which opened a debate on the possibility for enhancing the legislative decision making process in taxation matters in the energy and climate policy areas, and explored ways to increase the democratic accountability and transparency in the framework of the Euratom Treaty. The Communication argues and presents evidence that energy taxation and is not aligned with the overarching objectives of the energy and climate framework and part of the solution to resolve these shortcomings is to move **from unanimity to qualified majority voting** for the decisions in the area of energy taxation.

Another important priority for DG ENER was to **prepare the Commissioner-designate for the hearing at the European Parliament**. In this regard, the DG ensured the preparation of the Commissioner briefing book, the timely response to the parliamentary questions and organised several policy sessions with the Commissioner designate and her transition team prior to the hearing. DG ENER also participated in the preparations of the new Commission mandate by proposing a number of major initiatives to support the **European Green Deal** political priority.

DG ENER also continued its efforts to enhance the **dialogue with third countries on the priorities of the Clean Energy Package**, and specifically on the Governance of the Energy Union, promoting reflections on better policy planning at international level. Furthermore, it took initiatives to promote and strengthen regional policy cooperation amongst Member States in the energy field.

In 2019, DG ENER worked in close collaboration with DG CLIMA being actively involved in the political follow-up and outreach of the long-term energy and climate strategy **"A Clean Planet for All Europeans"**²⁸. This involved contributions relevant to Council Working Group meetings, following political developments in the European Parliament, the Committee of the Regions and the European Economic and Social Committee, as well as organisation of conferences and stakeholders consultations, of the Communication and

²⁷ COM(2019) 177 final, 9.4.2019

²⁸ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank, A Clean Planet for all. A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy; COM(2018) 773 final, 28 November 2018.

its supporting analysis and documents within and outside the EU.

One of the core activities of DG ENER was the **enforcement of the energy acquis** by means of **infringement procedures**. In 2019, the Commission adopted 90 infringement related decisions (i.e. letters of formal notice, reasoned opinions, decisions to refer cases to Court or to sursis a decision to refer) on the basis of proposals prepared by DG ENER during the monthly infringements decision-cycle (amongst which 4 decisions for a referral to Court, 16 reasoned opinions, 32 letters of formal notice, 36 closures and 2 withdrawals from the Court).

DG ENER successfully coordinated the DG's preparations for the specific programs of the **2021-2027 MFF** and steered the work of the **Technical Expert Group on Sustainable Finance**.

DG ENER also continued to steer the work on the Commission's initiative to increase the **international role of the euro**²⁹ in the energy field, following the adoption of the **Commission Recommendation**³⁰ **on the use of the euro in energy transactions**, and staff working document³¹ by the Commission on 5 December 2018. After a workshop with stakeholders, which took place on 14 February, DG ENER launched an open public consultation and presented its outcome in a staff-working document issued on 12 June 2019.

In 2019, DG ENER contributed to the **European Semester** exercise in close contact with SG, DG ECFIN, DG GROW, DG REGIO, DG ENV and DG CLIMA. DG ENER ensured that energy policy was adequately addressed in all country reports. Particular emphasis was placed on the investment angle and environmental sustainability (in line with the President's political guidelines) and on the link with the Energy Union governance process and the national integrated energy and climate plans. The 2019 Semester cycle included investment related country specific recommendations for all Member States, which, in most cases, included energy related issues. DG ENER was actively involved in the drafting of the Country Specific Recommendations (CSRs).

For a complete overview of the DG's performance in relation to the objectives and indicators set out in the Strategic Plan 2016-2020 and the Annual Management Plan 2019 please see the performance tables in Annex 12.

²⁹ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank, Towards a stronger international role of the euro; COM(2018) 796 final, 5 December 2018.

³⁰ Commission Recommendation of 5 December 2018 on the international role of the euro in the field of energy; C(2018) 8111 final.

³¹ Commission Staff Working Document, Promoting the international role of the euro in the field of energy; SWD(2018) 483 final, 5 December 2018.

2. ORGANISATIONAL MANAGEMENT AND INTERNAL CONTROL

This section explains *how* the DG delivered the achievements described in the previous section. It is divided into two subsections.

The first subsection reports the control results and other relevant information that supports management's assurance on the achievement of the financial management and internal control objectives³². It includes any additional information necessary to establish that the available evidence is reliable, complete and comprehensive. It covers the activities, programmes and management modes relevant to the DG.

The second subsection deals with the other components of organisational management: human resources, better regulation principles, information management and external communication.

To enhance the management oversight in DG ENER, two new bodies were established at senior management level in 2019: the Control Board and the IT Steering Committee.

- The Control Board met for the first time on 5 December 2019 and is going to provide coordination, oversight, advice and strategic orientation on all areas related to internal control, budget, finance, audit and the supervision of agencies and other entities. Three Board meetings are scheduled for 2020.
- A joint IT Steering Committee was established for Brussels and Luxembourg (see section 2.1.3).

2.1 Financial management and internal control

Assurance is an objective examination of evidence for the purpose of providing an assessment of the effectiveness of risk management, control and governance processes.

This examination is carried out by management, who monitors the functioning of the internal control systems on a continuous basis, and by internal and external auditors. The results are explicitly documented and reported to the Director-General. These are:

- the reports by the Authorising Officers by Sub-Delegation (AOSDs);
- the reports from Authorising Officers in other Directorates-General managing budget appropriations in cross-delegation;
- the reports on control results from entrusted entities in indirect management as well as the result of the Commission supervisory controls on the activities of these bodies;
 - the contribution of the Internal Control Coordinator, including the results of internal control monitoring at the Directorate-General level;
 - the reports on recorded exceptions, non-compliance events and any cases of 'confirmation of instructions' (Art 92.3 Financial Regulation);
 - the reports of the ex-post audit;
 - the limited conclusion of the internal auditor on the state of control and the observations and recommendations reported by the Internal Audit Service (IAS);
 - the observations and the recommendations reported by the European Court of Auditors (ECA).

³² Art 36.2 FR: a) effectiveness, efficiency and economy of operations; b) reliability of reporting; c) safeguarding of assets and information; d) prevention, detection, correction and follow-up of fraud and irregularities; and e) adequate management of risks relating to the legality and regularity of underlying transactions

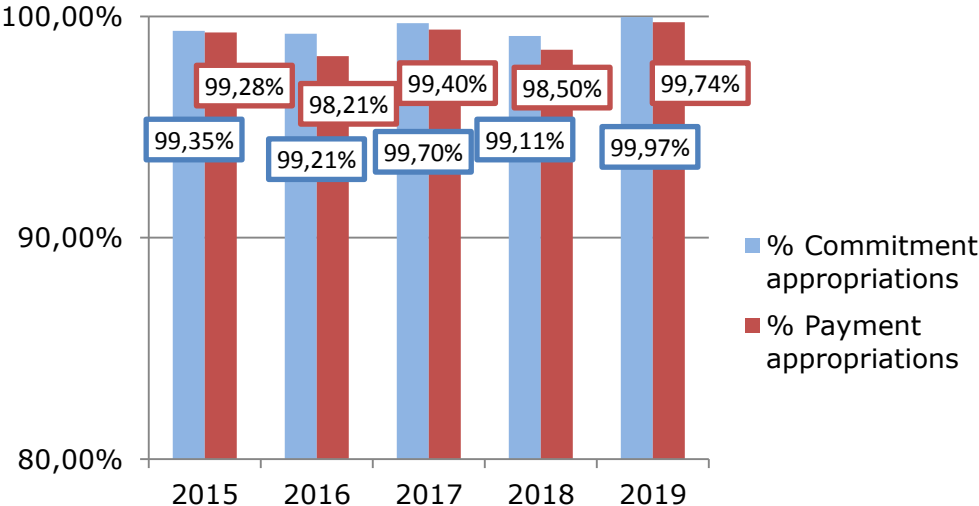
These reports result from a systematic analysis of the evidence available. This approach provides sufficient guarantees as to the completeness and reliability of the information reported and results in a complete coverage of the budget delegated to the Director-General of DG ENER.

This section is for reporting the control results and other relevant elements that support management's assurance. It is structured into (a) Control results, (b) Audit observations and recommendations, (c) Effectiveness of internal control systems, and resulting in (d) Conclusions on the assurance.

Overview of the 2019 budget execution

The total payments of DG ENER in 2019 amount to EUR 841.72 million, the vast majority being operational as the administrative part accounts for less than 0.5%.

The following chart shows the execution of DG ENER's appropriations³³ over time. In 2019 DG ENER absorbed 99.97% of the commitment appropriations and 99.74% of the payment appropriations.



The two charts below provide an overview of DG ENER implementation of its programmes and activities under direct management (11.78%) and indirect management (88.22%).

³³ This chart is based on C1 and E0 credits only (commitment appropriations voted in the current budget, budget modifications and other current year commitment appropriations, modifications due to amending budgets and transfers), while tables 1 and 2 of Annex 3 include all authorised appropriations.

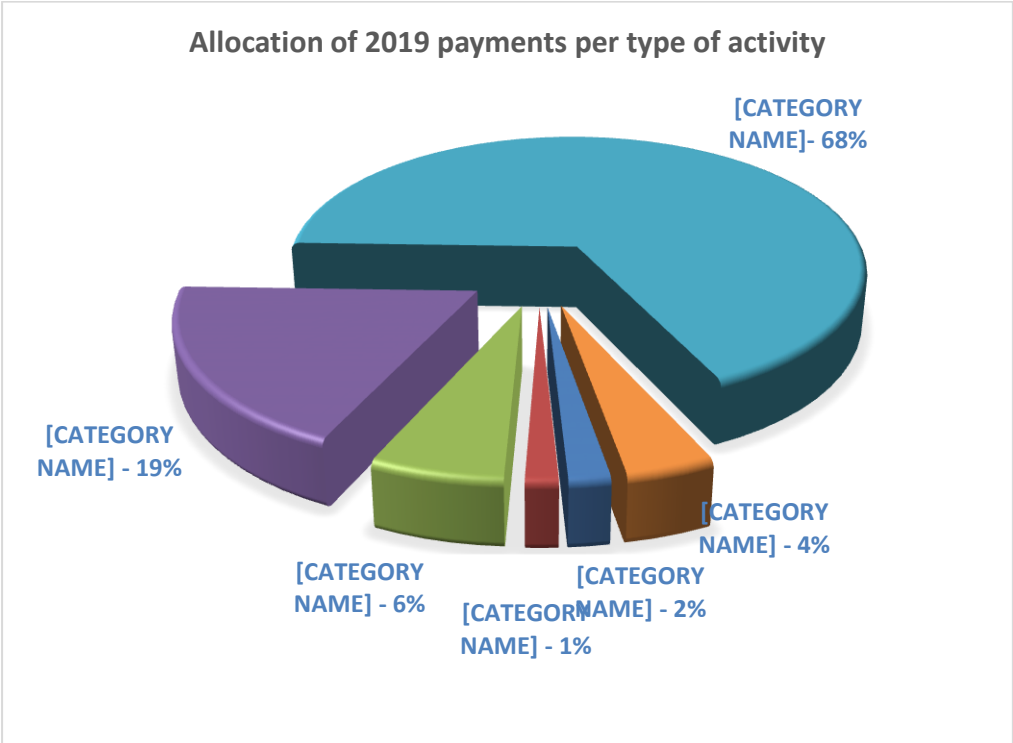
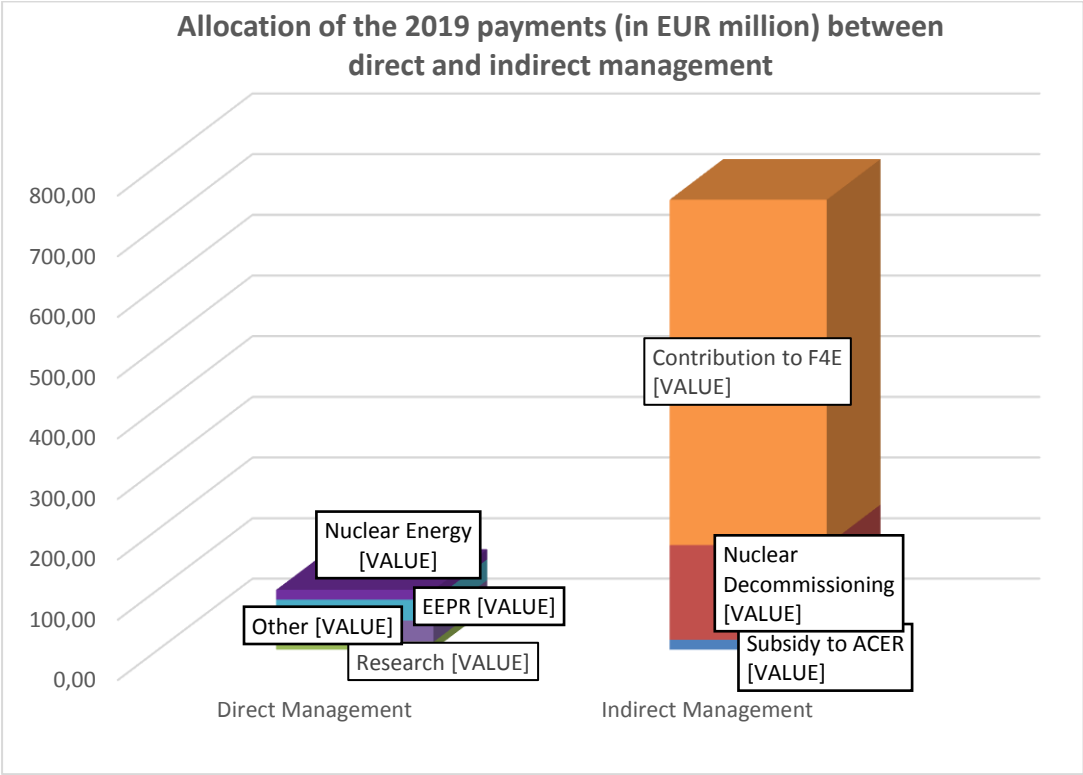


Table 2.1 below provides a summary of the payments made by type of activities. It shows that:

- Based on the main indicator results available, overall suitable controls were in place in 2019 and worked as intended;
 DG ENER has lifted the reservation on the Seventh Research Framework

Programme (FP7) overpayments following the newly introduced de-minimis rule³⁴, based on which the overall FP7 payments are well below 5% of the total payments of DG ENER (i.e. only 1.39%) and the relevant expenditure affected is less than EUR 5 million (i.e. only EUR 747 566);

- No new reservation is introduced in this AAR as Management has reasonable assurance that overall suitable controls are in place and work as intended (taking into account also the multiannual character of the main programmes); risks are being mitigated and/or monitored; improvements and reinforcements are being implemented.

³⁴ As from 2019³⁴, a 'de minimis' threshold for financial reservations is introduced. Quantified AAR reservations related to residual error rates above the 2% materiality threshold, are deemed not substantial for segments representing less than 5% of a DG's total payments and with a financial impact below EUR 5 million. In such cases, quantified reservations are no longer needed.

Table 2.1: Overview table: types of activities and main indicators (figures in EUR)

Risk-types / Activities	Grants / Procurements	Cross-sub-delegations to other DGs	Subsidies / funds to EE (EU Agency, EA, JU) Delegation Agreements with EE	Available ICO indicator(s)	Independent info from auditors (IAS, ECA) on assurance or on new/overdue critical recommendations available?	Reservation	AAR Section
EEPR grants	34.549.131			RER: 0.14%	N	N	2.1.1.1 A
FP7 grants	11.665.732			RER: 4.23%	N	N	2.1.1.1 A
H2020 grants	249.800			RER: 2.71%	N	N	2.1.1.1 A
Contribution to F4E JU			569.253.761	Audit / supervision activities	N	N	2.1.1.1 B
Nuclear decommissioning (CPMA / EBRD / SIEA)			157.095.750	Audit / supervision activities / mgnt decl.	N	N	2.1.1.1 B
Subsidy to ACER			16.147.153	Audit / supervision activities	N	N	2.1.1.1 B
Other operational expenditure	50.268.396		123.000	Estimated RER <2%	N	N	(Partly under 2.1.1.1 A and 2.1.1.1 B)
Administrative expenditure	2.364.771			Estimated RER <2%	N	N	(Partly under 2.1.1.1 A and 2.1.1.1 B)
<i>Totals (coverage)</i>	99.097.830	0	742.619.664				
AAR Annex 3		841.717.494					

see Annex 10 for the details of the calculation of the RER for each programme.

2.1.1 Control results

This section reports and assesses the elements identified by management that support the assurance on the achievement of the internal control objectives³⁵. The DG's assurance building and materiality criteria are outlined in Annex 4 of the Annual Activity report (AAR). Annex 5 outlines the main risks together with the control processes aimed at mitigating them and the indicators used to measure the performance of the relevant control systems. Annex 10 provides details as regards the different elements used for building assurance.

The 2018 Financial Regulation³⁶ introduced specific reporting requirements³⁷. As regards DG ENER, no such cases have been detected in 2019. However, in its relation with the Joint Research Centre, DG ENER is bound by the level of charge back decided by the Commission. The marginal overheads rate in this case is 18%.

2.1.1.1 Control effectiveness

A) Legality and regularity of the transactions

DG ENER is using internal control processes to ensure the adequate management of the risks relating to the legality and regularity of the underlying transactions it is responsible for, taking into account the multiannual character of programmes and the nature of the payments concerned.

In 2019, expenditure under direct management represented 11.77% while expenditure under indirect management represented 88.23% for a total amount of EUR 841.72 million.

In the context of the protection of the EU budget, the DGs' estimated overall risk at payment, estimated future corrections and risk at closure are consolidated at Commission level. DG ENER's data is shown in Table 2.2 and its accompanying notes below, and further explained in section 2.1.1 of Annex 10.

The estimated overall risk at payment for 2019 expenditure is EUR 3 million. This is the AOD's best, conservative estimation of the amount of *relevant expenditure* during the year (EUR 976.84 million), which is not in conformity with the contractual and regulatory provisions applicable at the time the payment was made.

This expenditure will subsequently be subject to ex-post controls, which will detect and correct underlying errors in successive years. The conservatively estimated future corrections for 2019 expenditure are EUR 2.11 million. This figure represents a conservative estimate of the errors that the DG will identify and correct through the controls it will carry out in succeeding years.

The difference between those two amounts is an estimated overall risk at closure for the 2019 expenditure of EUR 0.88 million, which is significantly lower than the 2018 amount of EUR 4.56 million. This evolution mirrors the lower estimated overall risk at payment (EUR 3 million in 2019 compared to EUR 7.47 million in 2018) and translates the significant decrease of importance of directly managed expenditure (EEPR, H2020 and FP7). This amount is a conservative estimate and is not considered material as regard assurance building.

³⁵ 1) Effectiveness, efficiency and economy of operations; 2) reliability of reporting; 3) safeguarding of assets and information; 4) prevention, detection, correction and follow-up of fraud and irregularities; and 5) adequate management of the risks relating to the legality and regularity of the underlying transactions, taking into account the multiannual character of programmes as well as the nature of the payments (FR Art 36.2). The 2nd and/or 3rd Internal Control Objective(s) (ICO) only when applicable, given the DG's activities.

³⁶ Regulation (EU, Euratom) 2018/1046 on the financial rules applicable to the general budget of the Union, repealing Regulation (EU, Euratom) No 966/2012 (2012 Financial Regulation).

³⁷ Article 92.3, Article 125.3, Article 130.4, Article 181.6 and Article 193.2

Table 2.2 - Estimated overall risk at closure (in EUR; full year)

Activities	Payments made	Minus new prefinancing	Plus cleared prefinancing	Relevant expenditure	Average error rate (%)		Estimated overall amount at risk at payment	Average recoveries and corrections (adjusted ARC; %)	Estimated future corrections	Estimated overall amount at risk at closure
	As per AAR Annex 3, table 2	As per ABAC DWH BO report on prefinancing	As per ABAC DWH BO report on prefinancing	= (2) - (3) + (4)	Detected	Estimated	= (5) x (6)	Based on 7Y-avg adjusted historic recovery orders (as per ABAC DWH BO report on corrective capacity) Not applicable to pre-financing, administrative expenditure and disbursements to F4E and ACER.	= (5) x (8)	= (7) - (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
EEPR grants	34.549.131		14.753.355	49.302.486	1,70%		838.142	1,44%	709.956	128.186
FP7 grants	11.665.732		6.007.218	17.672.949	5,45%		963.176	1,22%	215.610	747.566
H2020 grants	249.800	199.800	200.000	250.000	3,30%		8.250	0,26%	650	7.600
Contribution to F4E JU	569.253.761	569.253.761	658.594.110	658.594.110		0,00%	0	0,00%	0	0
Nuclear decommissioning (CPMA / EBRD / SIEA)	157.095.750	155.254.897	184.838.915	186.679.768		0,50%	933.399	0,50%	933.399	0
Subsidy to ACER	16.147.153	16.147.153	13.369.975	13.369.975		0,00%	0	0,00%	0	0
Other operational expenditure	50.391.396	8.486.692	6.770.362	48.675.066		0,50%	243.375	0,50%	243.375	0
Administrative expenditure	2.364.771	76.285	15.235	2.303.722		0,50%	11.519	0,50%	11.519	0
Total	841.717.494	749.418.587	884.549.169	976.848.077			2.997.861		2.114.509	883.352

Notes:

- See Annex 10 for the details of the calculation of the RER for each programme
- Column (3) 'Minus new pre-financing': new prefinancing (PF) actually paid by out the DG itself during the financial year (i.e. excluding any PF received as transfer from another DG);
- Column (4) 'Plus cleared pre-financing': PF actually cleared during the FY, based on accepted invoices (i.e. their 'delta' in FY actuals, not their 'cut-off' based estimated 'consumption');
- Column (5) 'Relevant expenditure': this concept intentionally combines elements from budgetary accounting and from general ledger accounting for the purpose of equivalence with the ECA's scope of the EC funds with potential exposure to L&R errors (see the ECA's AR methodological Annex 1.1 point 7);
- Column (6)
 - o The calculated weighted average error rate is 0.31%
 - o For low-risk types of expenditure, where there are indications that the error rate might be close to zero (e.g. administrative expenditure, operating subsidies to agencies, etc.), a 0.5% error rate is used as a conservative estimate;
- Column (8) 'Average recoveries and corrections %': the adjusted recovery rate is 0.67%. The seven-year historic average of recovery orders corresponds to 2.8% (as per ABAC DWH BO report on corrective capacity). The percentage has then been adjusted downwards to only take into account recoveries from the last seven years with a recovery context type 'irregularity' and 'error'. This percentage is further adjusted by deducting certain recoveries of pre-financing made in previous years, which under today's rules should be considered as being of recovery context type 'none' (instead of 'irregularity'). However, for FP7 and H2020 payments, the correction rate used in this column corresponds to the difference between the overall detected error rate (5.45%) and DG ENER's residual error rate (4.23%). For H2020 payments, the correction rate used in this column corresponds to the difference between the R&I family expected detected error rate for the full sample including draft audit reports (3.30%) and DG ENER's residual error rate including draft audit reports (3.04%).

Also note that the 0.67% is capped at 0.5% in the case of NDAP and of other operational expenditure to avoid negative amounts at risk at closure and is not applied to pre-financing, administrative expenditure and to payments made to F4E JU and ACER, in general not subject to ex-post recoveries. Eventually, this percentage is the best available indication of the expected corrective capacity of the ex-post control systems implemented by the DG over the past years. As payments made to F4E and ACER correspond to approximately 69% of the relevant expenditure, the average, adjusted and weighted average of corrections is 0.22%.

Conclusion as regard legality and regularity

DG ENER has set up internal control processes aimed to ensure the adequate management of the risks relating to the legality and regularity of the underlying transactions, taking into account the multiannual character of programmes as well as the nature of the payments concerned.

The AOD's conservative estimation of the amount of *relevant expenditure* during the year not in conformity with the applicable contractual and regulatory provisions at the time of closure (amount at risk at closure) is EUR 0.88 million. This amount is not considered material as regard assurance building.

The assessment on legality and regularity for the directly managed FP7 programme returns a level of detected error which appears to be 'persistently high' over the years in terms of potential financial impact (exposure). This programme however represents a very limited share of the total activity. Concerning the H2020 programme, the cumulative residual error rate is around 3.04%, which is in the healthy range of 2%-5% error rate. The impact on the amount at risk and on the overall materiality at DG level for the two research programmes is very limited. Regarding the directly managed EEPR programme, the residual error rate is 0.26%. The amount at risk is not material as regard assurance building.

It should however be noted that ECA, in its 2018 Annual Report, and as a result of its review of the Commission's ex-post audits on H2020 observed (among others) that the Commission methodology for the calculation of the error rate for H2020 could lead to an understatement of the error rate the extent of which cannot be quantified. As a result, it introduced recommendation 5.3, accepted by the Commission, to address this and other observations made in the context of the above-mentioned review. In response, the Commission committed to adapt its methodology for the calculation of Horizon 2020 error rate in line to the Court's observations, starting with the implementation of the 2020 ex-post audit campaign. In addition, in order to quantify the understatement, the Commission recalculated the error rate under specific assumptions and concluded, on average, an increase of the error rate by 0.34%, which has been used to top up the detected error rate for 2019 (see Annex 10, point 2.1.1.1 for additional details).

Concerning EEPR, there will be a similar adaptation of the methodology for calculation of the error rate in 2020. DG ENER checked the potential impact of such a change of methodology: additional calculations under specific assumptions performed this year, showed and concluded that the impact on this year's error rate would be minimal and, both the detected and residual error rates would remain well within a healthy range³⁸.

Regarding co-delegations, cross-sub delegations and indirectly managed expenditure, there are no indications of any element that would impair the assurance.

Regarding the expenditure indirectly managed, there are no indications of any elements that would impair the assurance. No particular events, issues or weaknesses, issues that could have a material impact on the assurance have been identified.

B) Fraud prevention, detection and correction

DG ENER's Antifraud Strategy was last revised in 2017 in accordance with the relevant OLAF and SG guidance, and remains valid until 31 December 2020. The specific

³⁸ Based on the additional calculations and assumptions, the detected error rate increased from 1.12% to 1.7% and the residual error rate increased with only 0.12% (from 0.14 % to 0.26%).

actions for 2019 were all implemented, except for one action that was made obsolete by the revision of the Commission Antifraud Strategy. All OLAF requests were serviced within the deadlines. Awareness was raised through a newsletter dedicated to internal control and through targeted meetings and information sessions.

The revision of DG ENER Antifraud Strategy is ongoing. The two prerequisites (evaluation of the outcome of the previous strategy and risk assessment) were fulfilled. The process for updating the Antifraud Strategy continues in order to take into account the changes introduced by the new Commission Antifraud Strategy and the associated guidance where relevant.

There were no new financial recommendations from OLAF. In 2019, DG ENER registered the closure of one financial and two non-financial recommendations. The implementation of one further financial recommendation is ongoing.

In 2019, DG ENER sent one new case to OLAF for investigation. As of 31 December 2019, this case remained open. One further case was referred to the OLAF at the beginning of 2020.

C) Other control objectives

The general control "Safeguarding of assets and information" and "Reliability of reporting" are relevant for DG ENER.

Safeguarding of assets relates to the management of assets and information within 'Euratom Safeguards' activity and to the assurance to give with regard to specific off-balance sheet items. DG ENER's current procedures and controls are considered as robust and effective.

The reliability of reporting relates to the information received from the entrusted entities (F4E Joint Undertaking, EBRD, CPMA and SIEA). The information received is compliant with the applicable guidance. DG ENER concludes that overall the information and reporting are reliable and adequate for drawing assurance conclusions.

2.1.1.2 Efficiency

The assessment of the most relevant key indicators and control results for DG ENER shows that DG ENER is compliant with the rules and efficient in the budget execution.

As regards the execution of its ex-post audits, DG ENER relies on the Common Implementation Centre for research programmes and on its own residual audit capacity for the EEPR and TEN-E programmes. In both cases, the outlook of audit implementation is broadly positive.

In 2019, DG ENER took a better consideration of the risks when establishing its yearly ex-post audit plan as regards expenditure under direct management (EEPR and TEN-E programmes). This more strategic approach includes initiatives to improve the efficiency of financial management. As regards expenditure under indirect management, DG ENER maintains a continuous risk management process for two of its programmes (NDAP and ITER/F4E) and updated its risk assessment supporting the control strategy for decentralised agencies. In addition, DG ENER relies on indicators related to the efficiency of its supervisory controls.

For the NDAP, the performance was assessed as generally appropriate. DG ENER found the entrusted bodies effective and efficient in the discharge of their duties.

The supervisory controls towards F4E and the administration of the Euratom contribution were efficient and delivered the expected results.

For both activities, DG ENER found the quality of the management information reported in 2019 sufficient for concluding on assurance.

2.1.1.3 Economy

DG ENER updated its assessment of the cost of controls in 2019. The cost of controls remain stable and proportionate to the needs.

Ex-ante controls contribute to the achievement of the policy and operational objectives and provide an assurance that the projects are running adequately. Ex-post controls have a positive deterrent effect within the programme, which will foster system improvements and a better compliance with regulatory provisions.

The increasing relative costs reported regarding grants under direct management should be looked at considering two aspects. On the one hand, FP7 is in its final stage and the amount of payments made is decreasing at a faster pace than the control activity. On the other hand, these controls cover more than the modest amount of expenditure for H2020, which is directly managed by DG ENER. For the EEPR programme, costs increase but remain under control due to the focus on a limited number of large size projects.

The costs related to financial and supervisory controls for both the F4E JU and ACER are stable and remain low, largely under 1%. The costs exposed by the entities for the management of the entrusted tasks remain stable.

2.1.1.4 Conclusion on the cost-effectiveness of controls

Based on the most relevant key indicators and control results, DG ENER has assessed the effectiveness, efficiency and economy of its control system and reached a positive conclusion on the cost-effectiveness of the controls for which it is responsible.

The efficiency and the effectiveness of the controls are, as a whole, supported by quantitative and qualitative benefits, identified for the relevant stages of the process, the costs of the controls remain overall low and the higher cost items are justified by objective needs or by specific circumstances, thus providing a positive impact on the assurance.

The strong controls are instrumental to maintain the programme on track in terms of schedule and budget. Tangible results are visible.

In conclusion, DG ENER considers that the current control system represents a good balance between the invested efforts (internal control costs and remuneration fees), the obtained error rates (effectiveness of controls) and delivery of objectives (efficiency).

2.1.2 Audit observations and recommendations

This section sets out the observations, opinions and conclusions reported by auditors. The limited conclusion of the Internal Auditor on the state of internal control is reported in Annex 11, section 2.1.2.1. Summaries of the management measures taken in response to the audit recommendations are also included, together with an

assessment of the likely material impact of the findings on the achievement of the internal control objectives, and therefore on management's assurance. Please refer to Annex 11, section 2.1.2.1 for the list of IAS audit reports issued in 2019 and follow-ups of previous IAS audit reports.

During 2019, the Internal Audit Service completed one audit for DG ENER³⁹, on the implementation of the control strategy for the Nuclear Decommissioning Assistance Programmes in Lithuania, Slovakia and Bulgaria. The final audit report praised the ongoing efforts of DG ENER to ensure the success of these programmes. Nevertheless, the auditors noted a weakness (rated "Very Important" by the IAS⁴⁰) in the process for clearing pre-financing that concerns the use of non-audited financial statements. The responsible units⁴¹ prepared an action plan⁴² to implement the necessary additional controls in the course of 2020. The action plan was agreed by IAS.

In addition, the Director-General is regularly informed of the conclusions and the main recommendations stemming from the work of the auditors.

In the context of DAS 2018, the European Court of Auditors assessed Energy as part of the Competitiveness for Growth and Jobs chapter. It concluded for the whole chapter that the testing of transactions indicates that the most likely error present in the population is 2 %, compared to 4.2% in 2017.

The European Court of Auditors addressed three special reports to DG ENER in the reporting period:

Name of the Special report	Date of publication	Outline of the conclusions
SR 08/2019: Wind and solar power for electricity generation: significant action needed if EU targets to be met	June 2019	<p>EU actions contributed effectively to reaching the objectives of the Ecodesign and Energy Labelling policy, but that effectiveness was reduced by significant delays in the regulatory process and non-compliance by manufacturers and retailers.</p> <p>There is a need for improvements to the regulatory process and the way the impact of the policy is measured, as well as actions to facilitate exchange of information between Market Surveillance Authorities and to improve compliance with the policy.</p>
SR 01/2020: EU action on Ecodesign and Energy Labelling: important contribution to greater energy efficiency reduced by significant delays and non-compliance	January 2020	<p>The report assessed the progress made by the EU and the Member States towards the 2020 renewables targets and examined the effectiveness of their measures to that end. There was a significant progress, beginning in 2005, which was followed by a deceleration in both sectors after 2014. For half of the EU Member States, meeting the 2020 targets will be a challenge. The Commission was recommended to continue to help Member States support further deployment — by organising auctions, promoting citizen participation and improving the conditions for deployment, including resolving grid insufficiencies.</p>

³⁹ Ares(2020)177149

⁴⁰ DG ENER disagreed with classifying the related risk as "High" and the finding as "Very Important", as documented in its comments to the Final Audit Report. Nevertheless, it accepted the rating of the finding.

⁴¹ Unit ENER.D.2 (supervising the NDAP programme) and Unit DDG2.01 (financial support to the NDAP)

⁴² Ares(2020)623774

SR 03/2020: The Commission contributes to nuclear safety in the EU, but updates required	February 2020	Overall the Commission used its competences well and contributed to nuclear safety in the EU. The recommendations focus on the Commission's role in monitoring the transposition of Euratom directives, the framework under which it issues the opinions on nuclear investments, and the approach it applies when preparing the opinions and carrying out verifications of radioactivity monitoring facilities.
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In the annual audit on the European Research Joint Undertakings (JU), ECA reported unqualified opinions on both the reliability of the accounts and the legality and regularity of transactions for the F4E JU, considering that the transactions underlying the annual accounts of the JU for the year ending 31 December 2018 are, in all material respects, legal and regular.

In 2019, DG ENER was responsible for the implementation of nine recommendations stemming from ECA special reports and two recommendations from the discharge resolutions of the European Parliament and Council. A follow-up exercise was performed in the first quarter of 2020 that observed that two ECA recommendations and the two Council recommendation could be closed. There are no overdue recommendations.

Annex 11, section 2.1.2.2 provides a comprehensive overview of ECA audits and the follow-up of recommendations.

Conclusion on audit observations and recommendations

Overall, internal and external audit work contributes significantly to the continuous improvement in DG ENER systems and operations. The IAS and the Court of Auditors findings and recommendations are subject to a systematic follow up by the Directorate-General.

Although these audits resulted in key findings, it is noted that all accepted very important recommendations issued by the IAS have led to specific action plans being drafted to address the underlying issues. Recommendations issued by the Court of Auditors and by the Discharge Authority were also systematically addressed.

The current residual risk from the audit recommendations remaining open in DG ENER does not impair the declaration of assurance.

In its conclusion on the state of internal control in DG ENER⁴³, the IAS stated that the internal control systems in place for audited processes are effective, except for the observation giving rise to the very important recommendation in relation to the 2019 audit on the implementation of the control strategy for the NDAP programme⁴⁴.

2.1.3 Assessment of the effectiveness of internal control systems

The Commission has adopted an Internal Control Framework based on international good practice, to ensure the achievement of its policy and management objectives. Compliance with the internal control framework is a compulsory requirement.

⁴³ Ares(2020)936767

⁴⁴ The recommendation will be addressed, in line with the agreed action plan, in the first half of 2020.

DG ENER uses the organisational structure and the internal control systems suited to achieving its policy and internal control objectives in accordance with the internal control principles and has due regard to the risks associated with the environment in which it operates.

In 2019, DG ENER continued to develop and adapt its organisational structure, internal processes and systems suited to achieving its policy and necessary to ensure operational efficiency and alignment with the Internal Control Framework of the Commission. It has due regard to the risks associated with the environment in which it operates. To enhance management oversight, DG ENER established a Control Board and a joint IT steering committee for Brussels and Luxembourg at senior management level.

Based on the methodology and information sources described in Annex 11 of the 2019 AAR, DG ENER has assessed its internal control system during the reporting year and has concluded that it is effective; the components and principles are present and functioning well overall. There are ongoing improvements in the areas of accounting treatment of clearing pre-financing, business continuity planning and IT governance.

Overall, the assessment established that the internal control system of DG ENER provides reasonable assurance concerning the achievement of operational objectives, the legality and regularity of the underlying transactions and that the resources have been used for their intended purpose and in accordance with the principles of sound financial management.

2.1.4 Conclusions on the assurance

This section reviews the assessment of the elements already reported above (in Sections 2.1.1, 2.1.2 and 2.1.3), and the sub-conclusions already reached. It draws an overall conclusion to support the declaration of assurance and whether it should be qualified with reservations.

The audit results, the internal control assessment and the control indicators do not reveal any significant weaknesses and do not fulfil any of the materiality criteria laid down in Annex 4.

The information on financial management and internal control stems from management and auditors as listed in section 2.1.2. These reports result from a systematic analysis of the evidence available. This approach provides sufficient guarantees as to the completeness and reliability of the information reported and results in a comprehensive coverage of the budget delegated DG ENER.

Overall, the controls carried out by DG ENER for the management of the budget, whether implemented directly or indirectly, were effective, efficient and economical for the reporting year. The resources assigned in 2019 to the activities described in this report were used for their intended purpose and in accordance with the principles of sound financial management. The control procedures put in place give the necessary guarantees concerning the legality and regularity of the underlying transactions, safeguarding of assets and information and the prevention, detection and correction of fraud and irregularities.

The conservative assessment of the authorising officer by delegation concerning the amount of relevant expenditure during the year not in conformity with the applicable contractual and regulatory provisions at the time the payment estimates the overall amount at risk at closure at EUR 0.88 million or less than 0.1% of the relevant 2019 expenditure.

DG ENER updated its anti-fraud strategy in 2017, based on a specific assessment of its fraud risk. The relevant actions for 2019 are considered as fully implemented, except for the revision of the antifraud strategy that was aligned with the revised guidance and will be completed in the first half of 2020.

Regarding directly managed expenditure, DG ENER has a limited exposure to FP7 and H2020.

Regarding indirectly managed expenditure, there is no indication of any element that would impair the assurance. The information received from F4E, from the executive agencies INEA and EASME, from the NDAP entrusted entities and from ACER is considered as adequate and reliable.

DG ENER identified four risks for 2019 that will be monitored by the Control Board in 2020. Action plans to reduce or mitigate these risks were adopted and being implemented by the responsible Directorates. The risk related to the ITER project, identified in 2018, remains valid for 2019. It is important to note however that no event materialised during the reporting year in relation to this project that would impair DG ENER's declaration of assurance.

DG ENER assessed its internal control systems and concluded that the internal control framework (ICF) is implemented and functioning as intended. Some improvements were identified, most notably concerning the process of accounting for pre-financed, the completion of business continuity preparations in Luxembourg and the IT governance structure. DG ENER identified the necessary corrective actions, which will be implemented in 2020.

DG ENER does not consider that the recommendations issued in 2019 by the Court of Auditors and by the IAS have a material impact on the declaration of assurance of DG ENER. The recommendations issued by the IAS have led to specific action plans addressing the underlying issues and are duly reflected in the assessment of the internal control system. The key recommendations resulting from previous audits were implemented. The outstanding recommendations do not impair the assurance.

The reservation on FP7, common to the Research Family, is no longer maintained due to the very low level of payments for these legacy projects. Consequently, DG ENER has lifted the reservation on the Seventh Research Framework Programme (FP7) overpayments following the newly introduced de-minimis rule, based on which the overall FP7 payments are well below 5% of the total payments of DG ENER (i.e. only 1.39%) and the relevant expenditure affected is less than EUR 5 million (i.e. only EUR 0.75 million).

Indeed, DG ENER assessment on legality and regularity for FP7 returns a level of detected error which appears to be 'persistently high' over the years in terms of potential financial impact (exposure). Given the inherent risk related to a key modality of the programme (notably grants system's reimbursement mechanism based on eligible actual costs and the related risk of errors in the costs reimbursement claims submitted by the beneficiaries), the residual error is expected to remain above 2%, as well as the programme's estimated overall amount at risk at closure by the end of its lifecycle. However, the impact of this amount at risk on the overall materiality at DG level remains limited.

DG ENER implements appropriate ex-ante and ex-post controls, to the extent that they remain cost-effective and supports the other programme objectives and financial management. Besides, the legal framework for FP7 can no longer be modified as all grant agreements have been signed. Radical simplifications to reduce errors (and to help achieve other policy objectives) were however introduced in Horizon 2020.

Regarding the directly managed EEPR programme, the residual error rate and the amount at risk are not material as regard assurance building.

In relation to the recommendations issued in 2019 by ECA and the IAS, none are considered to have a material impact on the declaration of assurance of DG ENER. All accepted recommendations issued by the IAS have led to specific action plans addressing the underlying issues. Moreover, recommendations issued by ECA and by the Discharge Authority were also addressed. The current residual risk from the audit recommendations remaining open for DG ENER does not impair the declaration of assurance.

Therefore, under the prevailing risk environment and from a managerial point of view, DG ENER's authorising officer by delegation can sign the Declaration.

Overall Conclusion

In conclusion, management has reasonable assurance that, overall, suitable controls are in place and working as intended; risks are being appropriately monitored and mitigated; and necessary improvements and reinforcements are being implemented. The Director General, in his capacity as Authorising Officer by Delegation has signed the Declaration of Assurance.

2.1.5 Declaration of Assurance

DECLARATION OF ASSURANCE

I, the undersigned,

Director-General of DG ENER, in my capacity as authorising officer by delegation

Declare that the information contained in this report gives a true and fair view⁴⁵.

State that I have reasonable assurance that the resources assigned to the activities described in this report have been used for their intended purpose and in accordance with the principles of sound financial management, and that the control procedures put in place give the necessary guarantees concerning the legality and regularity of the underlying transactions.

This reasonable assurance is based on my own judgement and on the information at my disposal, such as the results of the self-assessment, ex-post controls, the limited conclusion of the Internal Audit Service, the observations of the Internal Audit Service and the lessons learnt from the reports of the Court of Auditors for years prior to the year of this declaration.

Confirm that I am not aware of anything not reported here which could harm the interests of the institution or those of the Commission.

Brussels, date

Ditte JUUL JØRGENSEN

⁴⁵ True and fair in this context means a reliable, complete and correct view on the state of affairs in the DG.

2.2 Other organisational management dimensions

For an extensive reporting on all components, please refer to Annex 2.

2.2.1 Human resource management

In 2019, DG ENER kept aligning its resources and technical expertise to its main activities and priorities in the framework of the Clean Energy package as well as ensuring a proper enforcement and implementation of legislative proposals. As energy policy is a central element in the European Green Deal, DG ENER has also mobilised its resources to contribute to the new Commission priorities.

In 2020, DG ENER will work to deliver on the Green Deal Agenda, preparing proposals in the fields of energy efficiency, renewable energy, market design and governance and ensuring significant follow-up activities, particularly as far as NCEP⁴⁶ are concerned. In addition, DG ENER will launch several new initiatives that will cover the five dimensions of the Energy Union.

Moreover, legal obligations related to the nuclear domain are still increasing while the impact of the Brexit is still unclear. Therefore, a close monitoring of the resource allocation in 2020 will be of utmost importance in the nuclear domain as well.

A key development in 2019 was the appointment of a new Director-General as from August 2019. In addition, some organisational changes took place: the creation of Unit ENER.01 in charge of HR and internal communication and the split of the energy efficiency unit in two units⁴⁷ in order to increase clarity of tasks and efficiency of the delivering.

In 2019, DG ENER appointed one additional female middle manager, reaching a total number of five since 2017 of women newly appointed in middle management function.

Replacement of outgoing staff mainly in the nuclear domain (due to retirements) remains carefully managed. In 2019, the laureates of the EPSO AD specialised competition on nuclear energy covered the needs. An analysis has shown a need for a new specialist competition at AST level for this category of staff.

DG ENER 2018 staff survey results showed a significant improvement of overall staff engagement - 70% compared to 59% in 2016, the most significant in the Commission. A draft action plan has been prepared and several actions have already been undertaken, e.g. an ENER weekly newsletter has been launched, Heads of units are invited to management meetings, the minutes of the meetings are distributed and video debriefing is published on the Intranet. In addition, a steering team of voluntary colleagues has been set up in order to ensure inclusion and communication. A questionnaire has been addressed to all staff to get a more precise view on open issues within the DG. Results of staff survey and questionnaire have been discussed and analysed by the steering team and the managers during a specific seminar. A presentation to all staff during an open forum (including Luxembourg and Brussels sites) was organised. Staff has voted to identify priorities of issues requiring actions. Regular staff forum will be organised in 2020 to continue reporting and prioritising. Transparency and two-way communication with staff is particularly important.

⁴⁶ National Climate and Energy Plans.

⁴⁷ Respectively ENER.C.3 "Energy efficiency, policy and financing" and ENER.C.4 "Energy efficiency, buildings and products".

2.2.2 Better regulation

DG ENER is fully committed to fostering a Better Regulation culture and implementing the Better Regulation Guidelines.

In terms of strengthening DG ENER's horizontal preparedness for ensuring robust and sound, better regulation, the analytical tools of the DG were continuously improved through the work of Directorate A. For example, statistical country data sheets and Energy Union indicator tools were released during 2019 and widely used within the DG especially for the preparation of the work under the European Semester. Cooperation with Eurostat and the JRC was ongoing and delivering well despite the official expiration of the memorandum of understanding with the JRC.

2.2.3 Information management aspects

a. IT Governance

A joint IT Steering Committee (ITSC) was established for the Brussels and Luxembourg sites, which is expected to bring efficiency gains and synergies and to allow experience and knowledge sharing. The first meeting of the joint ITSC took place on 5 December 2019. A subsequent meeting is scheduled for first semester of 2020.

b. Information management

In October 2016, the College adopted the European Commission corporate strategy on Information Management, which states that data and information are to be considered as strategic assets by DGs and should be complete, reliable, relevant and easy to retrieve (Strategic Plan Indicator 1). DG ENER has strengthened its efforts in 2019 and has reached its target of reducing the number of registered documents that are not filed, which is now below 2% [1.66%]. The regular monitoring carried out by the Centre d'Administration des Documents (CAD) of DG ENER throughout the year was key to achieve these results. These efforts will be pursued in 2020 in order to reach the target of 1%.

The strategy also establishes that data, information and knowledge should be shared as widely as possible within the Commission⁴⁸. This should be done unless there are legal requirements or clear justifications for access to be restricted, in which case those restrictions should be enforced rigorously and uniformly.

Since June 2013, EURATOM Restricted Documents have been registered in a specific document management system (MEDOR). In the context of the rationalisation process underway, the Safeguards applications are progressively improved to directly register and store the documents they produce in the Documents Repository. This integration started in 2017 and continued in 2019.

c. Data protection

DG ENER undertook a series of actions to align its procedures with the new requirements set out in the Regulation (EU) 2018/1725 on the protection of natural persons with regard to processing of personal data by EU institutions. Awareness raising and promotion of data protection principles and obligations are in the focus of DG ENER's data protection strategy, encompassing tailor made presentations to units and directorates.

⁴⁸ Strategic Plan Indicators 2 and 3

DG ENER has established a Data Protection Network of contact points at Directorates' level to ensure a consistent approach to data protection matters throughout all DG ENER directorates. The network also serves as contact point for the Data Protection Coordinator (DPC) regarding dissemination of information related to data protection matters. Furthermore, a data protection devoted intranet page was created with hands-on information⁴⁹.

Under the former data protection rules, DG ENER had notified to the DPO 11 business processes, which required the processing of personal data. Seven of them - covered by corporate records - will be archived once the corporate records will be published. One was converted into a record and three have been under review. Additionally, two records were newly created and notified to the DPO. In the context of taking stock of processing operations and keeping their records up-to-date, operational data controllers always assessed compliance of their processing operations with general principles⁵⁰, in particular as regards lawfulness, data minimisation and storage limitation.

No personal data processing activities, for which a Data protection Impact Assessment (DPIA) is required, were identified. Privacy statements have been regularly updated or newly created. Privacy statements are brought to the attention of data subjects at the moment of collection of personal data (e.g. online registration, links etc.). A need for restrictions to data subjects' rights was not established.

DG ENER identified possible joint controllership for particular personal data processing operation with the Research and Innovation Family Directorates of the Commission, Executive Agencies and Joint Undertakings regarding the management of research projects. In this context, DG ENER has participated in the working group of the Common Implementation Centre (CIC) Executive Committee. This established group provided recommendations on possible joint controllership for personal data processing operations in the "Funding and Tenders Portal".

Finally, DG ENER reported to the European Commission's DPO on the state of compliance in DG ENER with the new data protection rules as established in Regulation (EU) 2018/1725 by providing a duly completed questionnaire on the implementation of Commission's Data Protection Action Plan⁵¹.

2.2.4 External communication activities

Concerning external communication activities, 2019 was a transition year for DG ENER. In the context of the European elections and of the growing concern in the society about climate change, DG ENER gave a new orientation to its communication activities. Indeed, while until 2018, DG ENER has mainly been communicating to stakeholders at a period when policymakers were seeking to finalise the new legislative framework provided by the Clean energy for all Europeans package, the main objective of the 2019 communication strategy was to communicate more towards citizens, underlining in particular why EU energy policy rules are important for us all and affect our everyday lives. The time has come to tell the citizens what is in the package for them. These efforts started in 2019 and will be enhanced in 2020 in the context of the European Green Deal. DG ENER makes sure that its activities are in line with the corporate guidelines, notably as to evaluation with the use of the key performance

⁴⁹ e.g. models on privacy statement on various types of processing, info on how to carry out compliant data processing operations and information on data protection training, etc.

⁵⁰ Art. 4 Reg. 2018/1725

⁵¹ C(2018)7432 final.

indicators promoted by the Commission's Communication Network.

The target audiences were not very specific in 2019 and were split into two groups; stakeholders and citizens. However, a mapping exercise was launched at the end of the year in order to prepare the new communication strategy covering the all mandate of the new Commission. DG ENER notably met DG COMM to identify opportunities to reach young people.

In 2019, DG ENER main communication objectives were the following: Continue informing and engaging with stakeholders; increase the level of awareness and the level of understanding of citizens on the EU Energy policy, with a special focus on the Clean energy for all Europeans package. DG ENER also started working with JRC on behavioural insights envisaging a future cooperation on this topic.

DG ENER used a mix of communication tools to reach its communication objectives.

The main tool is digital. The initial website, referred to as the "policy site" co-existed with the new Europa site, referred to as the "info site". In spite of the fact that the 'digital transformation' was in full speed in 2019, the DG ENER policy site had over 1.4 million visits which is higher than in 2018, and the pages on the info site had almost 780.000 visits. According to web statistics for 2019, the average number of visits for both policy and info site was +/- 184.000 per month. In 2020, DG ENER will continue improving the structure and the quality of the content, trying to offer more language versions of the most relevant sections.

DG ENER twitter account contributes to increasing the web traffic by regular posting and keeps our interested audiences up to date with energy developments and news. In 2019, the account attracted around +/- 700 new followers per month and we reached 33.500 followers in December 2019 (compared to 25.000 in December 2018). For the first time in 2019, DG ENER used modest amounts of funding to promote certain tweets. Data shows that this unquestionably enabled us to reach a wider audience and stimulated a larger rate of engagement.

Events are of major importance to DG ENER for the communication to stakeholders. In 2019, DG ENER was involved in the organisation of a high number of events. Among the most relevant were: EUSEW 2019 (Brussels), the PCI Energy Days (Brussels), the 12th Annual SET-Plan conference (Bucharest), EU Green Week (Brussels); the 11th Citizens Energy Forum (Dublin), the Energy Infrastructure forum (Copenhagen); the Open Doors day (Brussels), the 14th European Nuclear Energy forum (Prague); the EU Energy Day in the margins of the COP25 (Madrid); the Clean Energy for EU Islands Conference (Split/Hvar). In total, Directorate A has contributed to the organisation of more than 40 Events at DG level. In April 2019, DG ENER was also involved in the organisation of a first participatory Citizens' dialogue on climate change and energy transition in Ottignies (Belgium).

DG ENER also produced several publications to explain the Clean energy for all Europeans package in simple terms. A brochure⁵² was published in July. It is available in six languages. Several thousand copies of the English version were printed and distributed during events.

A set of five factsheets on the package were also published on the website in six language versions.

Finally, in terms of publications, DG ENER continued sending its monthly electronic

⁵² ISBN paper: 978-92-79-99843-0

newsletter to an updated mailing list of around 6,000 subscribers and producing more technical publications like the annual statistical pocket book 'EU Energy in figures 2019'.

As to audio-visual productions, three short videos on the package were finalised before summer (used on social media and at events).

DG ENER launched in May a special Eurobarometer survey to assess public opinion on EU energy policy. The results were published in September (Special Eurobarometer 492 – Europeans' attitudes on EU energy policy). They provided a factual base for the definition of the priorities of the new Commission and of DG ENER future communication strategy.

On a daily basis, DG ENER continued working closely with the SPP contributing to the drafting of lines to take and providing news, articles and op-eds for publication.

The number of visits to the Visitors' Centre has increased (around 40 visits with a focus on EU Energy Policy). The topic is more and more important and interesting for the groups. Some publications are distributed and written answers are given to detailed questions.

2.2.5 Examples of planned initiatives to improve economy and efficiency

In November 2019, the ITER Organization (IO), F4E and Quantum Science and Technology (QST, the Japanese Domestic Agency), signed a Cooperation Arrangement in the margins of the 25th ITER Council. This Arrangement concerns experience gained by Euratom and Japan through their bilateral collaboration on the JT-60SA tokamak in Naka, Japan. JT-60SA will be the largest and most sophisticated tokamak in the world, upgraded with the European support and expertise. This tokamak is the last to be assembled before ITER; therefore, the experience of assembling it will be invaluable for minimising risks, assembling ITER, and commissioning it as efficiently as possible. Through the signature of this Arrangement, F4E and QST have agreed to exchange knowledge with IO to capitalise on their experience for ITER's benefit.

A full series of key performance indicators dedicated to the specific monitoring of the schedule and cost performance have been introduced in 2019 to better monitor the progress and the efficiency of F4E in delivering the Euratom contribution to the ITER project. The established monthly dashboard showing the status of newly adopted KPIs has enabled the Commission to deepen its oversight of F4E. F4E also creates monthly reports for the Commission on the progress of its contributions to IO milestones. For each Governing Board, there is also a status report that includes summaries of the activities and procurements that are currently being executed.

The Estimate at Completion (EaC) system has been introduced and populated by the data. It shows overall costs of the project and its sub-projects and allows to take managerial decisions. EaC is updated on a monthly basis and presents a summary to each of the biannual Governing Board meetings. This enables the Governing Board, and the supporting committees, to monitor the overall financial evolution of the project. Furthermore, F4E in 2019 has developed a "project booklet". It provides the comprehensive overview on the progress of the managed projects/programmes, in particular the changes in the schedule of the milestones and the evolution of the EaC (including risks).

The Governance Regulation (Regulation 2018/1999) proposed by the Commission on the 30 November 2016 was adopted by the co-legislators during the course of 2018

and entered into force on 24 December 2018. The new Regulation brings together the existing scattered planning and reporting obligations from the main pieces of EU legislation across energy, climate and other Energy Union related policy areas and thereby achieve a major simplification of obligations. It reduces, aligns and updates such requirements and removes existing duplications.

The streamlined political Governance process between the Commission and Member States, with close involvement of other EU Institutions, align frequency and timing of reporting obligations, significantly enhancing transparency and cooperation. Actual figures of the savings achieved are not yet available as the Regulation entered into force at the end of 2018 and reporting obligations for Member States will commence in 2021. However, additional benefits in terms of reducing administrative burden in planning and reporting are expected. In particular, the Commission has estimated in its impact assessment⁵³ accompanying the legislative proposal a reduction in planning and reporting costs for Member States of about EUR 1.2 million.

Lastly, DG ENER anticipated the introduction of the public procurement management tool (PPMT), which helped users at operational level to see the benefits of the new system, despite the necessary additional learning and training steps. However, PPMT is a corporate contract management tool where savings will come from using modern procedures in line with the digital transformation. The initiative was an important step in the process of familiarising with the newly developed tool for the policy unit involved but even more importantly for the legal sector of DG ENER. The know-how the latter gained in the process will serve to provide more efficient support to the units in future.

⁵³ Commission SWD(2016) 394 final