



**GREEN BOND
ALLOCATION &
IMPACT REPORT 2021**

December 2021

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1. Introduction

These days climate action and sustainability are at the forefront of everyone's mind, be it citizens, companies or public authorities. We at Fluvius are very outspoken about the need for an energy transition towards decentralised, decarbonised and digitalised energy distribution grids. As a regulated distribution grid operator for energy, Fluvius takes up its responsibilities. That is why we have proposed our Vision 2050¹, a document that clearly outlines how we see the path towards climate-neutrality in Flanders by 2050 and what Fluvius can and will do to reach this vital target.

The great challenge for Fluvius is to ensure today and to maintain in the future a safe, reliable, affordable and sustainable energy distribution to the benefit of Flemish households, companies and public authorities. That is our firm commitment. But it will require a great deal of imagination, and hard work, to realise these combined objectives.

The shift towards a decarbonised, decentralised and digitalised energy distribution will pose financial challenges in the form of substantial investment needs in new technologies, the integration of flexibility into the grids and the digitalising of the infrastructure.

We also put the spotlight on our sewerage activity. We form a partnership with 86 Flemish municipalities to ensure that a high-quality sewerage grid is in place. Thus we enable these municipalities and their inhabitants to increase the quality of surface water.

Fluvius has already initiated this journey. The EUR 600 million green bond we launched at the end of 2020, based on the Fluvius Green Financing Framework, is a striking example of this strategic choice.

We invite you to discover this first Green Bond Allocation & Impact Report on our 2020 Green Bond, in which we report on the progress we made on our sustainability journey.

On behalf of everybody at Fluvius, thank you for the interest you show in our company!

David Termont,
CFO Fluvius

¹ <https://over.fluvius.be/sites/fluvius/files/2020-11/visie-netbeheer-van-de-toekomst-nota.pdf>

2. Context

Fluvius System Operator cv (“Fluvius”) is a prominent multi-utility company based in the Flemish Region of Belgium. It has operations in several grid-based utility services: (1) the distribution of electricity, (2) the distribution of natural gas, (3) public lighting, (4) sewerage, (5) cable television infrastructure (CATV), (6) fibre-to-the-home (FTTH) grids, as well as a number of activities related to one or more of the activities mentioned before. The company is 100% owned by the municipalities in the Flemish Region.

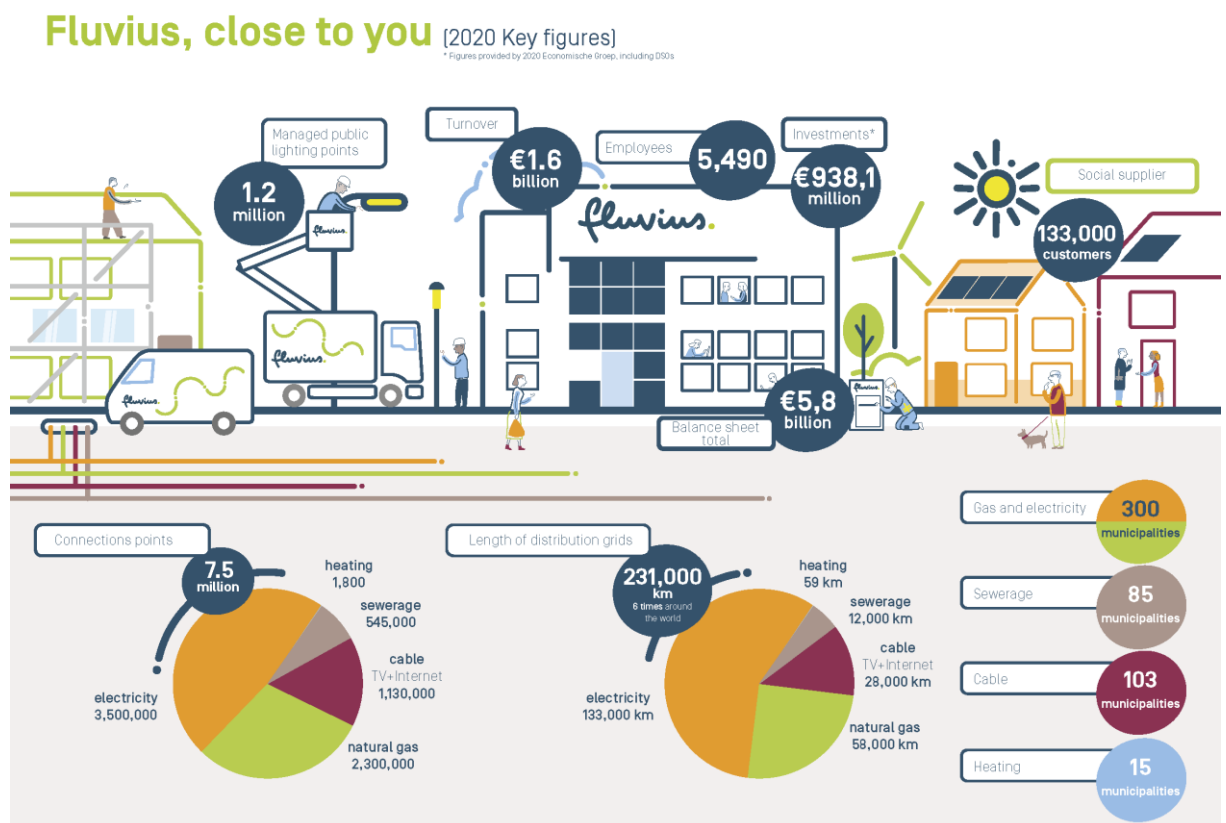


Figure 1: Key figures

Fluvius offers its services in all 300 Flemish cities and municipalities. The grid infrastructure is owned by eleven intermunicipal utility companies² that are the sole shareholders of Fluvius System Operator. As such, it is Flanders’ largest utility services provider. The company manages³ 133.000 km of electricity grids, 58.000 km of gas grids, 12.000 km of sewerage infrastructure and 28.000 km of CATV grids. It services a total of approximately 7,5 million connections. For public lighting, 1,2 million lighting points are serviced. The company is strategically important to the Flemish Region and its general policy aim of realising Europe’s climate and energy objectives.

² These 11 intermunicipalities are: Fluvius Antwerpen, Fluvius Limburg, Fluvius West, Gaselwest, Imewo, Intergem, Iveka, Iverlek, PBE, Riobra and Sibelgas.

³ Rounded figures as per 31 December 2020



Figure 2: operational area of Fluvius System Operator

On 30 June 2021, Fluvius employed 5.502 people, which is the total of contract-based employees at Fluvius System Operator and statutory employees at Fluvius OV.

The corporate structure of the Fluvius Economic Group is the following:



Figure 3: corporate structure of the Fluvius Economic Group

Fluvius's strengths are the following:

- it is the largest Flemish multi-utility, covering the entire Flemish Region;
- its shareholders are 100% public entities, i.e. all 300 Flemish cities and municipalities;
- it shows a low risk business profile across all activities;

- it has a robust capital structure, a strong liquidity position and stable cash flows due to tariff regulation or long-term contractual agreements for its core activities – this is evidenced by investment grade ratings at Moody’s (A3, stable outlook) and Creditreform Rating (A+, negative outlook) as per end of November 2021;
- the company has a highly experienced management and staff;
- Fluvius strategically focuses on operational excellence, synergies and sustainability.

Our CSR and sustainability policies

Fluvius System Operator’s commitment on CSR and sustainability is laid down in its CSR Charter. It was approved by the Board of Directors on 4 December 2019. This document can be consulted online here: <https://over.fluvius.be/sites/fluvius/files/2019-12/9010106-mvo-charter-2019-en.pdf>

Over the course of the previous years, Fluvius has set up a lot of initiatives (both internal and external) to enhance our performance on CSR and sustainability. Our policies and actions are being supervised, coordinated and prepared by an internal CSR Board, which directly reports to the company’s Management Committee and indirectly (through the Management Committee) to the Board of Directors.

Our CSR and sustainability policies and performance have been independently screened and benchmarked by a number of specialised agencies such as Sustainalytics, Ecovadis, V.E and ISS ESG. Please consult these agencies’ websites for the latest reports on Fluvius.

The infographic, titled "Corporate Social Responsibility [CSR] at Fluvius", features the Fluvius logo at the top left. It is divided into several sections:

- Memberships:** Fluvius is a member of the Belgian Alliance for Climate Action and THE SHIFT.
- Signatory:** Fluvius is signatory to the E.DSO Sustainable Grid Charter.
- Awards:** Fluvius has received the following awards: Great Place To Work Certified (Jan 2021–Jan 2022, Belgium), SUSTAINABLE DEVELOPMENT GOALS (Fluvius - ambassador 2021), and SDG PIONEER.
- ESG Ratings:** Fluvius is ESG rated by Ecovadis (BRONZE 2021 Sustainability Rating), ISS ESG (Corporate ESG Performance Prime), and SUSTAINALYTICS (RATED).
- Green Bond:** The Fluvius 2020-2030 600 mEUR green bond got a Second Party Opinion by ISS ESG and is included in the Bloomberg Barclays MSCI Green Bond Index.
- Other:** Fluvius is included in the V.E ESG Profile (E0002420926).

The infographic also includes a central illustration of a Fluvius building, a truck, and a house with solar panels, and a small bar chart showing an ESG overall score of 53.

v. juli 2021

3. 2020 green bond

Fluvius issued its debut green bond on 2 December 2020 (settlement date). It was a 10-year EUR 600 million bond with a fixed annual coupon of 0,250%. The issue was arranged under the issuer's Euro Medium Term Note (EMTN) Programme. The ISIN Code for this green bond is BE0002755362 and the instrument is listed on Euronext Brussels.

The green character of this bond was fully in line with Fluvius's Green Financing Framework. This document can be consulted at <https://over.fluvius.be/sites/fluvius/files/2020-11/green-financing-framework-fluvius.pdf>

The net proceeds of this first green bond were dedicated to 4 investment categories:

1. *Digital meters for electricity*
2. *LED in public lighting*
3. *Sewerage grids*
4. *Adjustments to the distribution grids to cater for renewable energy*

Important note: for digital electricity meters only half of the total investment value is taken into consideration for the use of proceeds of this green bond, since European Investment Bank (EIB) financing was obtained for the other half of the investment programme.

An independent Second Party Opinion (SPO) was provided by the specialised ESG rating agency ISS ESG, dated 22 November 2020 (<https://over.fluvius.be/sites/fluvius/files/2020-11/second-party-opinion-green-financing-fluvius.pdf>).

As such, the Green Bond supports Fluvius's overall sustainability strategy and policies. The proceeds have been used for investments in the grids of Fluvius's shareholders, being the intermunicipal entities for utility services.

4. Allocation

The nominal amount raised through the 2020 green bond was EUR 600 million, with net proceeds of EUR 599.136.000.

The period covered for financing investments by proceeds of the 2020 Green Bond is 2018-2022, i.e. a look-back period of 36 months and look-forward period of 24 months. For the allocation figures in this report, the starting point was 1 January 2018 and the cut-off date 30 June 2021.

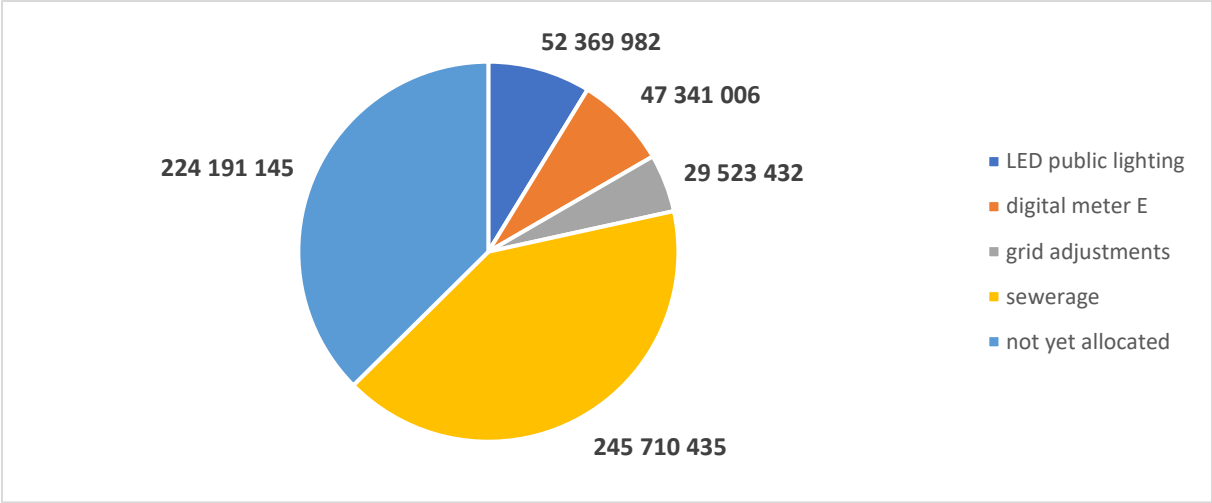
Up until the cut-off date of 30 June 2021, all proceeds used have been entirely allocated to new investments. None of the proceeds have been allocated to refinancing purposes.

All relevant investments have been executed in the Flemish Region of Belgium, which is the operational area for Fluvius.

As per 30 June 2021, the amounts presented in the table below had already been allocated over the four selected investment categories. According to the principles laid down in its Green Financing Framework, the non-allocated part of the net proceeds from the issuance of the 2020 Green Bond is being held in the Issuer's treasury liquidity portfolio, in cash or in other short-term instruments.

USE OF PROCEEDS <i>(tickmark: A)</i>				
annual investment (EUR)	2018	2019	2020	2021 (HY)
LED public lighting	1.673.012	4.728.892	24.820.174	21.147.904
digital meter E (50%)	0	4.960.729	23.741.731	18.638.547
grid adjustments	12.270.896	9.870.839	6.017.967	1.363.730
sewerage	81.764.830	56.390.194	83.378.145	24.177.265
TOTAL	95.708.738	75.950.654	137.958.018	65.327.446
cumulative investment (EUR)	2018	2019	2020	2021 (HY)
LED public lighting	1.673.012	6.401.904	31.222.078	52.369.982
digital meter E	0	4.960.729	28.702.460	47.341.006
grid adjustments	12.270.896	22.141.735	28.159.703	29.523.432
sewerage	81.764.830	138.155.024	221.533.169	245.710.435
TOTAL	95.708.738	171.659.392	309.617.410	374.944.856
invested (% of net proceeds)	2018	2019	2020	2021 (HY)
annual investments	16,0%	12,7%	23,0%	10,9%
cumulative investments	16,0%	28,7%	51,7%	62,6%
category weight (annual)	2018	2019	2020	2021 (HY)
LED public lighting	1,7%	6,2%	18,0%	32,4%
digital meter E	0,0%	6,5%	17,2%	28,5%
grid adjustments	12,8%	13,0%	4,4%	2,1%
sewerage	85,4%	74,2%	60,4%	37,0%
TOTAL	100%	100%	100%	100%
category weight (cumulative)	2018	2019	2020	2021 (HY)
LED public lighting	1,7%	3,7%	10,1%	14,0%
digital meter E	0,0%	2,9%	9,3%	12,6%
grid adjustments	12,8%	12,9%	9,1%	7,9%
sewerage	85,4%	80,5%	71,6%	65,5%
TOTAL	100%	100%	100%	100%

As per the cut-off date of 30 June 2021, 62,6% of the total net proceeds have already been allocated, of which 14,0% in LED for public lighting, 12,6% in digital metering electricity, 7,9% in grid adjustments and 65,5% in sewerage capex. See graph below.



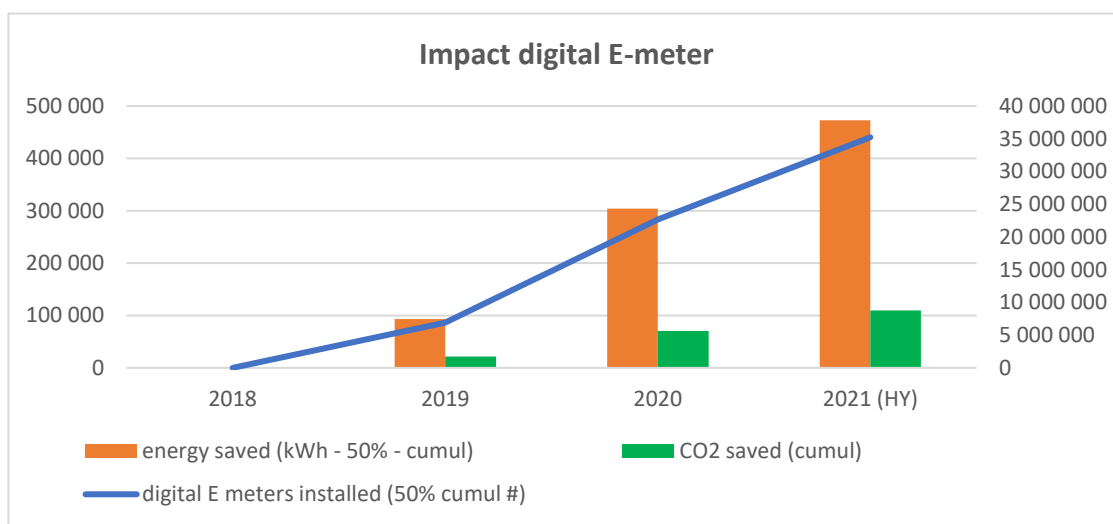
5. Impact

Below, the impact realised by the investments in each of the selected categories up until the current report's cut-off date of 30 June 2021 is summarised.

A. Digital meters for electricity

Fluvius started the formal roll-out of digital metering in July 2019. Since then, the progress in the digital meter (electricity) roll-out is summarized in the table below:

Tickmark: A	2018	2019	2020	2021 (HY)
digital E meters installed (50% cumul #)	0	86.630	283.268	440.324
energy saved (kWh - 50% - cumul)	0	7.444.116	24.341.176	37.836.998
CO2 saved (cumul)	0	1.689.814	5.525.447	8.588.999



In order to correctly assess these data:

- The numbers of digital meters for electricity installed only represent half of the total installed, since the green bond's proceeds will only be used for financing half of the investment capex (the other half financed by a EIB loan programme);
- The figures for energy saved are calculated by applying a 2,60% reduction⁴ in annual electricity consumption by residential electricity consumers once a digital

⁴ Source : VREG, <https://www.vreg.be/sites/default/files/document/rapp-2017-06.pdf>

meter is installed at the premises, on an overall average annual consumption of 3.305 kWh⁵ by residential consumers in Flanders;

- CO2 reductions are calculated by applying a conversion factor of 227 CO₂/MWh⁶ consumed.

On 20 September 2021 (post cut-off date), Fluvius announced that it had already installed 1 million digital meters (electricity and gas combined).

B. LED in public lighting

The investments in public lighting LED technology, financed by the 2020 green bond's proceeds, can be summarized as follows:

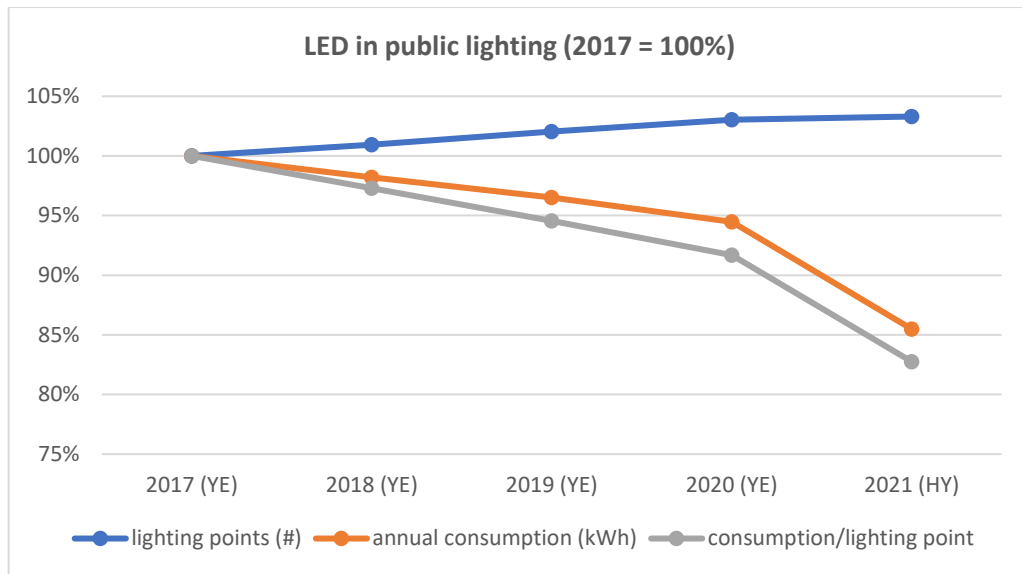
P.M.: year-end 2017 data are presented as a starting point only

Tickmark: A except 2017(YE)	2017 (YE)	2018 (YE)	2019 (YE)	2020 (YE)	2021 (HY)
lighting points (#)	1.128.106	1.138.799	1.151.256	1.162.314	1.165.313
lighting points (delta)		10.693	12.457	11.058	2.999
lighting points (delta %)		0,95%	1,09%	0,96%	0,26%
annual consumption (kWh)	408.495.723	401.156.504	394.206.195	385.918.454	349.210.642
consumption/lighting point	362,1	352,3	342,4	332,0	299,7
CO ₂	92.728.529	91.062.526	89.484.806	87.603.489	79.270.816
CO ₂ reduction (annual)		-1.666.003	-1.577.720	-1.881.317	-8.332.673
CO ₂ reduction (cumul)		-1.666.003	-3.243.723	-5.125.040	-13.457.713
2017=100					
lighting points (#)	100,0%	100,9%	102,1%	103,0%	103,3%
annual consumption (kWh)	100,0%	98,2%	96,5%	94,5%	85,5%
consumption/lighting point	100,0%	97,3%	94,6%	91,7%	82,8%
Delta % (annual)		-2,7%	-2,7%	-2,9%	-8,9%
Delta % (cumul)		-2,7%	-5,4%	-8,3%	-17,2%
CO ₂ (delta % cumul)	100,0%	98,2%	96,5%	94,5%	85,5%

⁵ Source : VREG, <https://www.vreg.be/nl/energieverbruik>

⁶ Source: <https://app.electricitymap.org/map> (retrieved 29 November 2021 – 10.00 am, figure for Belgium)

Note: the 2021 (HY) figure for annual consumption (kWh) has been normalized to represent a full year.



Over the period 2018/HY 2021, the investments in LED for public lighting have allowed us to diminish the annual consumption in public lighting (measured in total consumption volume in kWh) by 14,5%, while the total public infrastructure (measured by the number of lighting points installed) has increased by 3,3% over the same period. The average annual consumption per lighting point has already diminished by 17,2%.

In order to correctly assess the figures in the table and graph above:

- the numbers of lighting points installed covers both LED and non-Led installations;
- the declines registered in annual consumption is due to the increasing LED-rate on municipal public lighting, but also due to more flexibility in public lighting (dimming, motion sensor-triggered on/off switching, etc);
- CO2 reductions are calculated by applying a conversion factor of 227 CO₂/MWh⁷ consumed.

On 19 October 2021 (post cut-off date), Fluvius announced that it had reached the milestone of having 25% of public lighting infrastructure fitted with LED technology. In any case, Fluvius remains firmly on track to reach the complete LED roll-out in public lighting by the year 2030.

In November 2021 (post cut-off date), Fluvius announced its Interreg 2 Seas project at the Flemish conference 'Smart Light Concepts'. This project aims at further reducing the carbon emission by public lighting. A pilot project in the city of Mechelen will test how a

⁷ Source: <https://app.electricitymap.org/map> (retrieved 29 November 2021 – 10.00 am, figure for Belgium)

standard lighting programme can be adapted to the ‘lighting needs’ of a specific neighbourhood by thoroughly analysing mobility data and safety requirements.

C. Sewerage grids

The green bond’s proceeds have also been used for sewerage grid construction, both for new grids (i.e. expansion investments) as for the replacement of worn-out existing grids (i.e. replacement investments).

Four intermunicipal entities in the Fluvius Economic Group have activities in sewerage:

1. Riobra: 27 municipalities
2. Fluvius Antwerpen: 4 municipalities
3. Fluvius Limburg: 35 municipalities
4. Fluvius West: 20 municipalities

being a total of 86 municipalities.

Tickmark: A except 2017	2017	2018	2019	2020	2021 (HY)
grid length (km - YE)	10.655	11.283	11.420	11.465	11.448
grid length growth (cumul - km)		628	137	45	-17
grid length growth (km)		628	765	810	793

Note: the decline between end of 2020 and HY 2021 by 17 km is due to a data cleaning correction. There is always a lag time between the actual date and the date at which new infrastructure is registered in the data bases.

Figures from the Flemish Environmental Agency⁸ (Vlaamse Milieumaatschappij - VMM) on the sewerage rate and the sanitation rate give a good view on the progress made in this particular area. The definition of these figures is:

- sewerage rate: the proportion of the number of inhabitants connected to a sewerage grid on the total number of inhabitants;
- sanitation rate: the proportion of the number inhabitants connected to an Aquafin operated sewerage water treatment plant (rioolwaterzuiveringsinstallatie – RWZI) to the total number of inhabitants.

Based on VMM figures for 2019 and 2020, we calculated the sewerage and sanitation rates for each of the four intermunicipal companies with sewerage activities (Riobra, Fluvius Limburg, Fluvius West and Fluvius Antwerpen), as well as for the total group of Flemish municipalities serviced by Fluvius. These are the results:

⁸ Website: www.vmm.be

	inhabitants	sanitation rate 2019 (%)	sanitation rate 2020 (%)	sewerage rate 2019 (%)	sewerage rate 2020 (%)
RIOBRA FLUVIUS	311.117	49,94	53,24	65,78	66,71
ANTWERPEN	69.947	80,04	81,89	80,04	81,89
FLUVIUS LIMBURG	730.489	82,89	84,79	84,81	87,06
FLUVIUS WEST	265.036	70,92	71,94	75,16	76,26
TOTAL	1.376.589	69,63	71,76	76,37	77,92

[Tickmark A only for 2020 figures]

Both sewerage and sanitation rates have also been calculated using weighted averages, to better reflect the overall impact of sewerage investment:

	WA sanitation rate 2019 (%)	WA sanitation rate 2020 (%)	WA sewerage rate 2019 (%)	WA sewerage rate 2020 (%)
RIOBRA FLUVIUS	60,32	63,00	73,15	74,16
ANTWERPEN	79,79	81,55	79,79	81,55
FLUVIUS LIMBURG	88,37	89,68	89,59	91,13
FLUVIUS WEST	73,61	74,74	77,84	78,92

[Tickmark A only for 2020 figures]

D. Grid adjustments in electricity for the integration of renewable energy

The investments made to adjust the Flemish electricity distribution grids to accommodate renewable energy capacity are summarized in the following table which presents the proceeds used and the number of relevant projects realized between 2018 and end of June 2021. The renewable capacity connected to the distribution grids takes the form of onshore wind turbine capacity and grid reinforcements due to the rise in solar panels installed by individual households, SMEs and public authorities.

For the period 2018-2021 (HY), the following number of relevant projects have been executed:

Tickmark: A	2018	2019	2020	2021 (HY)
projects realised (#)	405	519	441	318
projects realised cumul (#)	405	924	1.365	1.683

Projects for grid adjustments are in one or more of the following subcategories:

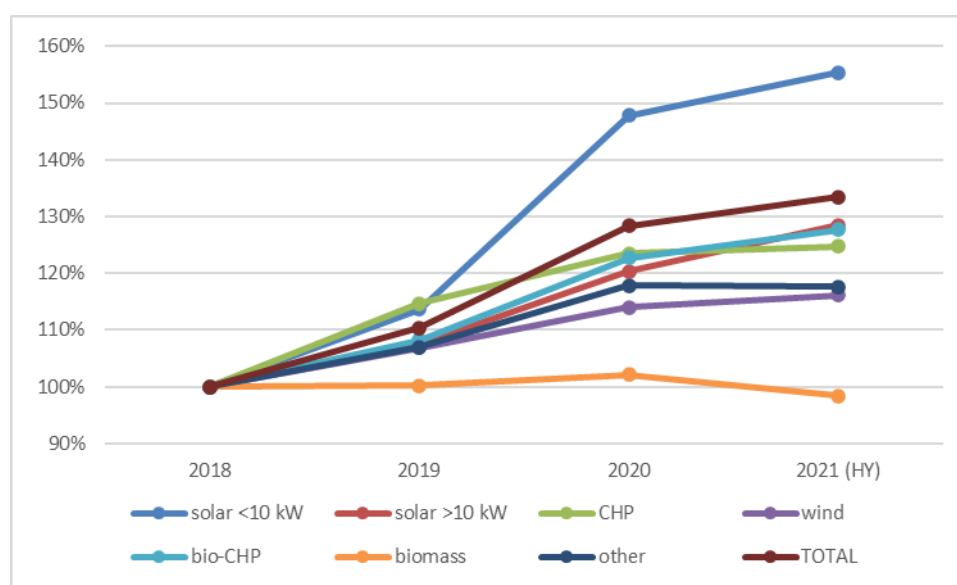
Detail investments (€ ex overhead)	2018	2019	2020	2021 (HY)
cabins	238.393	153.591	41.989	29.318

switching post	61.030	39.166	6.875	1.267
transformer station	38.377	70.335	115.320	637
E connection	74.283	79.057	13.718	25.377
LV grid	577.979	515.866	396.147	329.293
E metering infrastructure	208.665	179.111	176.380	75.681
MV grid	6.455.388	5.505.132	3.030.232	455.288
teletransmission grid	1.435.438	769.473	677.093	93.308
	9.089.553	7.311.733	4.457.754	1.010.170

The said investments have contributed in a significant way to the growth in decentral, renewable electricity generation capacity connected to the distribution grids operated by Fluvius. See the tables and the graph below.








kVA	2018	2019	2020	2021 (HY)
solar <10 kW	1.651.537	1.876.371	2.440.977	2.566.559
solar >10 kW	1.091.769	1.174.674	1.313.190	1.402.712
CHP	743.932	853.258	918.508	927.920
wind	1.050.836	1.123.046	1.198.108	1.220.157
bio-CHP	196.876	212.946	241.609	251.429
biomass	89.537	89.722	91.392	88.109
other	107.363	114.908	126.518	126.310
TOTAL	4.931.849	5.444.924	6.330.302	6.583.196

2018=100%	2018	2019	2020	2021 (HY)
solar <10 kW	100,0%	113,6%	147,8%	155,4%
solar >10 kW	100,0%	107,6%	120,3%	128,5%
CHP	100,0%	114,7%	123,5%	124,7%
wind	100,0%	106,9%	114,0%	116,1%
bio-CHP	100,0%	108,2%	122,7%	127,7%
biomass	100,0%	100,2%	102,1%	98,4%
other	100,0%	107,0%	117,8%	117,6%
TOTAL	100,0%	110,4%	128,4%	133,5%



6. SDG Contribution

As indicated in the Fluvius Green Financing Framework, the investment categories selected for the 2020 Fluvius green bond contribute to one or more of the UN's Social Development Goals (SDGs) in a significant or limited way:

USE OF PROCEEDS	CONTRIBUTION OR OBSTRUCTION	SUSTAINABLE DEVELOPMENT GOALS
Smart meters for electricity	Limited contribution	 
LED lighting	Limited contribution	 
Wastewater transportation grids	Significant contribution	
Distribution and integration of renewable energy into the power grid	Significant contribution	 

source: ISS ESG Second Party Opinion (Nov 2020)

7. Assurance report by independent auditor

This Allocation & Impact Report has been approved for publication by the Fluvius Green Finance Committee on 1 December 2021.

The Fluvius Green Financing Framework requires an external review of the instruments issued under this framework, both at the issuance itself as well as an annual assurance until the maturity date of the instrument.

For the 2020 Green Bond, a pre-issuance Second Party Opinion was delivered by ISS ESG. In this report, ISS ESG verified the issuer's Green Financing Framework, the company's overall CSR and sustainability strategy and performance, and the bond's alignment with the Green Bond Principles (GBP) developed by the International Capital Markets Association (ICMA) as well as the Green Bond Standards as proposed by the European Commission at the moment of issuance.

All financial and non-financial figures with tickmark 'A' in the present Allocation & Impact Report on the 2020 Green Bond have been externally verified by EY Bedrijfsrevisoren BV. Their integral report is presented below.

→ to be delivered by EY

8. Disclaimer

This document has been prepared by and is the sole responsibility of Fluvius System Operator cv.

This document is not intended for distribution to, or use by, any person or entity in any jurisdiction or country where such distribution would infringe on local law or regulation.

In this document, the term 'Fluvius' refers either to Fluvius System Operator cv or to the consolidated group (i.e. Fluvius System Operator cv + its consolidated subsidiaries). The term 'Fluvius Economic Group' refers to Fluvius (consolidated group) + 11 intermunicipal utility companies that are Fluvius's sole shareholders, and Fluvius OV (which is the special vehicle that employs Fluvius's statutory employees). The Fluvius Economic Group is not a legal entity, but for reporting purposes the Fluvius Economic Group can be considered as if it were a single entity.

This document and the information in it are in no way a financial, technical or commercial advice or a recommendation to invest in or purchase a green bond or any other bond or security issued by Fluvius. This document does not constitute a Prospectus or an Offering Memorandum.

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