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April 6, 2022

TO: Chair Deuter, and Members of the Public Affairs and Safety Committee

RE: 2020-2021 Data Report Related to the City of Elmhurst's Sustainability Action Plan

The City of Elmhurst adopted a Sustainability Action Plan in March 2018. The Plan describes the importance of data collection and emphasizes metrics and tracking results. It is important to note that the Plan also recommends an update every five years to re-evaluate existing and future sustainability goals.

Due to the COVID-19 pandemic, an annual report was not provided in 2020. The same metrics that have been tracked in years prior have been outlined below with updates that reflect the 2020 and 2021 years. The seven indices below relate to Focus Areas and Goals identified in the Sustainability Action Plan and reflect the data available to the City of Elmhurst.

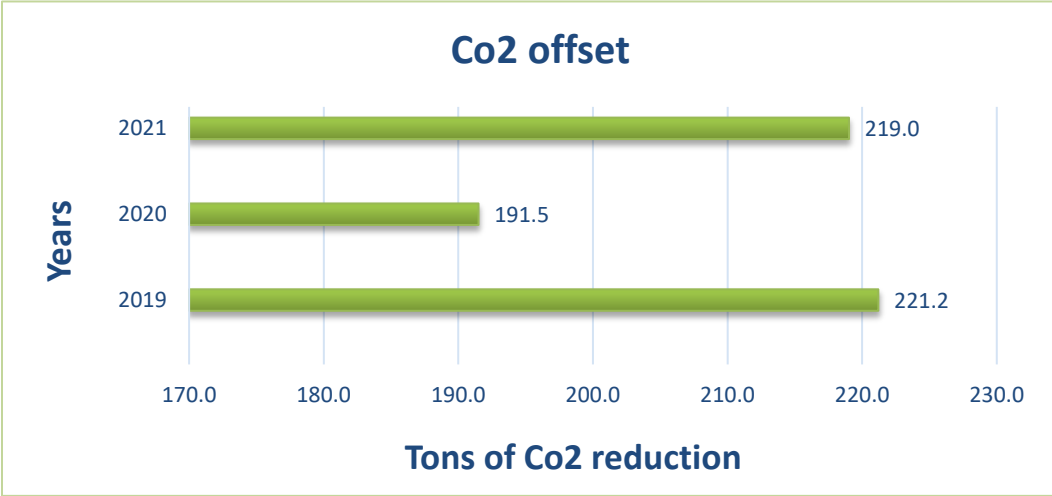
One important achievement was the adoption of the 2021 Bicycle and Pedestrian Plan. It's anticipated that a 2023 update to the Sustainability Action Plan will include implementation of the Bicycle and Pedestrian Plan.

Index 1) BioDiesel Fuel and Propane – Relates to Focus Area 2, Goal 4

The City of Elmhurst uses Biodiesel year-round at various concentrations, up to B20 biodiesel (20% biodiesel, 80% petroleum diesel). In 2021, the Elmhurst fleet consumed 57,339 gallons of diesel. Of this total, 9,849 gallons were 100% bio diesel. In 2020, the Elmhurst fleet consumed 50,551 gallons of diesel and 8,129 gallons were 100% diesel. When compared to 2019 values, the City's fleet consumed 20% less fuel in 2020 and 11% less fuel in 2021. The 2020 values were largely impacted by the COVID-19 pandemic. Meanwhile, the use of propane has increased since 2019.

The City's Public Works Department used 6,314 gallons of propane in 2020 and 9,583 gallons in 2021. For 2021, this is up from 7,250 used in 2019. In late 2021, the Public Works Department converted 11 more vehicles to consume propane which resulted in a 58% increase in the total number of vehicles in the PW fleet that can now use propane as their primary, if not sole, source of fuel.

The chart below outlines the CO₂ offset due to the use of biodiesel, propane, and EV as alternative fuel sources (2019 to 2021).



Greenhouse gas emissions avoided in 2021 by alternative fuel usage



7,530
Incandescent lamps
Switched to LED's



3,285
tree seedlings
grown for 10 years



24,167,164
smartphones
charged

Index 2) Power Consumed for EV Chargers – Relates to Focus Area 2, Goal 2

The total electrical power used at three of the City's electric vehicle charging stations in 2020 and 2021 are listed below compared to 2019. Over a 3-year period, the City saved 5,382 gallons of gasoline, which results in 573,068.6 kg of greenhouse gases not expelled into the atmosphere.

YEAR	ELECTRICAL ENERGY USED	GASOLINE EQUIVALENT
2021	41,580 kWh	2,024 gallons
2020	30,115 kWh	1,466 gallons
2019	38,876 kWh	1,892 gallons

*Source: EPA.gov
 $1,562.4 \text{ lbs. CO}_2/\text{MWh} \times (4.536 \times 10^{-4} \text{ metric tons/lb}) \times 0.001 \text{ MWh/kWh} = 7.09 \times 10^{-4} \text{ metric tons CO}_2/\text{kWh}$

Index 3) Prescription Drug Recycling – Relates to Focus Area 1, Goal 2 & Focus Area 4, Goal 3

The 2020 and 2021 Prescription Drug Take-Back Days resulted in 100 lbs and 255 lbs, respectively, of unwanted prescription drugs being collected by the Police

Department. The dropbox in the Police Department lobby also collected 468 lbs of unwanted prescription drugs in 2020 and 587 lbs in 2021. In total, 1,428 lbs of unwanted prescriptions drugs were collected between 2020 and 2021.

Index 4) E Waste – Relates to Focus Area 1, Goal 2 & Goal 4

City Hall recycled approximately 4,000 lbs of e-waste and 84 toner and ink cartridges in 2020 and 3,200 lbs of e-waste and 120 toner cartridges in 2021.

Despite the ongoing pandemic, the City still held four recycling events in 2020 as well as four in 2021 to collect e-waste. These events are co-sponsored with DuPage County and provide a regional resource for those looking to properly dispose of electronics such as computers, televisions, printers, and more. A total of 51,420 lbs were recycled in 2020 and 73,545 lbs of electronic waste were recycled in 2021.

Index 5) Energy and ComEd- Relates to Focus Area 3, Goal 1 & 2

In 2020, the City of Elmhurst had a total of 107 residents that completed a Home Energy Assessment (less than 184 in 2019). Cumulatively, the residents are saving an estimated 128,347 kWh per year with the products installed during those assessments. The 2021 values will be released by ComEd in late Spring.

In 2020, the City replaced old HID high bay fixtures with LED fixtures at the Public Works facility. This change reduced the electric consumption of the building by 35%, or 260,000 kWh per year. ComEd incentives paid for over 80% of the project cost and the work was completed by City staff. The conversion of City street lighting to LED led to a reduction in usage of 210,000 kWh in 2020 and a reduction of 253,800 kWh in 2021.

In addition, the Public Works Department is evaluating the overall reduction in electrical and natural gas consumption following upgrades to City Hall's HVAC and BAS systems. Preliminary information from ComEd shows an 18% reduction in electrical use from February 2020 to February 2022 (the new HVAC system was installed in December 2020).

The Community Development Department reported 51 solar panel permits issued in 2020 and 35 solar panel permits issued in 2021. In addition, the City has taken in permits for EV charging stations that are being installed for both residential and commercial use. In 2021, the Community Development Department issued two such permits which will likely increase in upcoming years due to shifting consumer preferences.

Index 6) Water Smart – Relates to Focus Area 4, Goal 1

The overall WaterSmart portal registration rate for Elmhurst is 32%. This is one of the key performance indicators (KPIs) for the system, and is above average compared to other utilities around the country. WaterSmart reports that the average registration rate among all 180+ of their utility clients is 25%.

WaterSmart detected 22,000 total leaks for customers in Elmhurst in the last year, and over 9,700 leaks were alerted to customers. In 2020, 21,078 leaks were detected and 20,690 were resolved. The number of alerts sent is a function of the customer's self-defined leak detection threshold configuration, and the availability of customer contact information. As the City collects more customer email addresses the number of alerts sent will increase.

The City also maintains 99% positive leak alert feedback. One resident stated,

“The lady at the City of Elmhurst was very helpful locating the problem...putting food color in the toilet definitely told us where the leak was...learned something new today! Thank you!”

The City also began using WaterSmart's print leak alert program. This program provides targeted outreach to customers without email or phone contact information on file with the City. Over 3,000 customers received print leak alerts since this began, and accounts for nearly one-third of all automated leak alert recipients in the last year.

Index 7) Refuse and Recycling – Relates to Focus Area 1, Goal 1 & 4

The data on the next page outlines the tons of refuse and recycling collected by Republic Services at residential locations in Elmhurst by month in 2021 and 2020. The City's composting program is included in the Yard Waste category.

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2021 DATA REPORT				Recycling Detail	
	Tons Collected by Month			Paper	Commingled
	Refuse	Recyclables	Yard Waste	Fiber	Containers
January-21	1,053.58	430.39	60.91	299.59	130.80
February-21	853.55	364.51		253.74	110.77
March-21	1,043.35	419.10		291.74	127.36
April-21	1,786.16	472.45	126.55	328.87	143.58
May-21	1,083.75	424.15	195.96	295.25	128.90
June-21	1,182.73	443.61	184.28	308.80	134.81
July-21	1,276.31	440.87	206.29	306.89	133.98
August-21	1,046.54	388.46	122.78	270.41	118.05
September-21	1,198.69	440.57	127.85	306.68	133.89
October-21	1,113.02	407.54	125.84	283.69	123.85
November-21	1,118.77	392.65	215.65	273.32	119.33
December-21	1,318.18	516.99	389.72	359.88	157.11
Totals	14,074.63	5,141.29	1,755.83	3,578.85	1,562.44
Monthly Average	1,172.89	428.44	175.58	298.24	130.20
Weekly Average	270.67	98.87	40.52	68.82	30.05
Participation Rate	89.7%				

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2020 DATA REPORT				Recycling Detail	
	Tons Collected by Month			Paper	Commingled
	Refuse	Recyclables	Yard Waste	Fiber	Containers
January-20	1,097.90	501.11	63.58	348.82	152.29
February-20	819.41	369.36		257.11	112.25
March-20	954.30	405.65		282.37	123.28
April-20	1,278.48	523.77	131.28	364.60	159.17
May-20	1,446.49	508.83	305.74	354.20	154.63
June-20	1,133.91	404.54	170.12	281.60	122.94
July-20	1,343.64	504.34	182.44	351.07	153.27
August-20	1,110.57	395.48	99.94	275.29	120.19
September-20	1,165.70	423.45	115.65	294.76	128.69
October-20	1,254.65	491.13	129.47	341.88	149.25
November-20	1,191.48	437.23	317.10	304.36	132.87
December-20	1,195.00	543.43	248.33	378.28	165.15
Totals	13,991.53	5,508.32	1,763.65	3,834.34	1,673.98
Monthly Average	1,165.96	459.03	176.37	319.53	139.50
Weekly Average	269.07	105.93	40.70	73.74	32.19
Participation Rate	89.7%				