State of Maine
Janet T. Mills
Governor

March 13, 2023

Senator Stacy Brenner, Chair
Representative Lori K. Gramlich, Chair
Members of the Joint Standing Committee on Environment and Natural Resources
100 State House Station
Augusta, ME 04333-0100

Senator Mark W. Lawrence, Chair
Representative Stanley Paige Zeigler, Jr., Chair
Members of the Joint Standing Committee on Energy, Utilities and Technology
100 State House Station
Augusta, ME 04333-0100

RE: Regional Greenhouse Gas Initiative (RGGI) 2022 Annual Report

Dear Senator Brenner, Senator Lawrence, Representative Gramlich, Representative Zeigler, Members of the Joint Standing Committee on Environment and Natural Resources, and Members of the Joint Standing Committee on Energy, Utilities and Technology:

The Regional Greenhouse Gas Initiative (RGGI) is a cooperative, market-based effort among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and Virginia to cap and reduce carbon dioxide (CO_2) emissions from the power sector. RGGI represents the first cap-and-invest regional initiative implemented in the United States.

Title 38 Maine Revised Statutes (M.R.S.) §580-B, sub-§10, established by Public Law, Chapter 317 of the 123rd Legislature and amended by Public Laws, Chapter 372 of the 124th Legislature and Chapter 369 of the 126th Legislature, directs the Department of Environmental Protection (Department), the Public Utilities Commission (Commission), and the trustees of the Efficiency Maine Trust (the "Trust" or "Efficiency Maine") to submit a joint report to the joint standing committees of the Legislature having jurisdiction over natural resource matters and utilities and energy matters by March 15th annually, regarding items related to implementation of the RGGI. This letter serves as the annual report and addresses the seven items listed in the statute. This letter also provides an update on the appropriateness of the number of allowances reserved in accordance with the voluntary renewable energy set-aside provisions.

A. The reductions of greenhouse gas emissions from carbon dioxide budget units, conservation programs funded by the Regional Greenhouse Gas Trust Fund pursuant to Title 35-A, section 10109, and carbon dioxide emissions offset projects.

Reductions of greenhouse gas emissions from carbon dioxide (CO_2) budget units. As a group, CO_2 budget units (RGGI units) located in Maine and throughout the RGGI region have experienced significant reductions in CO_2 emissions from the baseline period (2000 to 2005) both prior to and since the program began with the first auctions in 2008 (see Tables 1 and 2, below). To date, CO_2 emissions from RGGI units within the State of Maine have decreased by approximately 75% from levels emitted during the baseline period and CO_2 emissions from RGGI units within the RGGI region have decreased by over 50% from levels emitted during the baseline period.

The RGGI program was originally designed to stabilize CO_2 emissions from RGGI units in the region for the period from 2009 through 2014. Subsequently, beginning in 2015 and extending to 2018, the annual cap on emissions was to have been reduced by 2.5% per year to achieve a 10% reduction in emissions from baseline levels. Due to the achievement of greater reductions in CO_2 emissions from RGGI units than originally anticipated, the State of Maine, along with the other RGGI participating states, made program changes to adjust the annual cap downward in 2014 and beyond, to build on these significant emission reduction achievements. For the calendar year 2014, the annual cap for the region was reduced from 165 million allowances to 91 million allowances, representing a 45% reduction in the cap. Maine's share of the adjusted regional annual cap was 3.6%, which represented approximately 3.3 million allowances in 2014. The 91 million allowance annual cap was further adjusted to address a surplus of unused allowances remaining in the secondary market following the first and second three-year compliance periods, which closed at the end of 2011 and at the end of 2014, respectively. The adjusted cap continued to be reduced at the rate of 2.5% per year between 2015 and 2020. The RGGI participating states completed a second program review in 2017, which resulted in agreement by the participating states to make further changes to the program, including extending the regional cap reduction period from 2020 through 2030 and reducing the regional annual cap by a fixed amount of 2,275,000 allowances per year (representing 2.5% of the 2014 regional cap).

Following adjustments made to the regional cap and other changes to the program as a result of the 2017 program review, the RGGI expanded with New Jersey rejoining the program beginning in 2020 and Virginia joining the program beginning in 2021. With the addition of New Jersey and Virginia to the program, the regional cap was increased by 18 million allowances in 2020 to account for New Jersey rejoining, and by approximately 27.2 million allowances in 2021, to account for Virginia joining.

Table 1, on the following page, shows annual CO_2 emissions data from Maine's RGGI units from 2000 through 2022. Maine's RGGI units consist of the following facilities:

- FPL Energy Wyman, an 850 MW oil-fired power plant owned and operated by NextEra Energy Resources and located on Cousins Island in Yarmouth, Maine. This facility is currently functioning as a peaking unit that operates during times of high electricity demand when called on by ISO-New England.

- Androscoggin Energy, a 164 MW combined cycle natural gas-fired cogeneration power plant owned and operated by Pixelle Androscoggin LLC (formerly Verso Androscoggin LLC) and located adjacent to the Pixelle Androscoggin paper mill in Jay, Maine.
- Bucksport Generation, a 187 MW combined cycle/simple cycle natural gas-fired power plant owned and operated by Bucksport Generation LLC and located at the former Verso Bucksport paper mill in Bucksport, Maine. This facility is currently functioning as a simple cycle peaking unit that operates during times of high electricity demand when called upon by ISO-New England.
- Maine Independence Station, a 550 MW combined cycle natural gas-fired power plant owned and operated by Casco Bay Energy Company LLC and located in Veazie, Maine.
- Westbrook Energy Center, a 565 MW combined cycle natural gas-fired power plant owned and operated by Calpine Corporation and located in Westbrook, Maine.
- Rumford Power, a 275 MW combined cycle natural gas-fired power plant owned and operated by Revere Power LLC and located in Rumford, Maine.

Although emissions from the RGGI units in Maine have generally decreased by significant amounts, during the last few years emissions have increased compared with emissions between 2017 and 2020. Emissions for 2022 are projected to be approximately 60% higher than emissions in 2021; however, 2022 emissions data will not be quality-assured until the second quarter of 2023, so they are included only as projected numbers in Table 1 and its associated Bar Chart, below. The recent increase in emissions from Maine RGGI units can be explained by a combination of factors, including the variability in the number and length of hot and cold weather events from season to season and year to year, the overall variability in electricity demand, the variability in the supply of natural gas in Maine, the variability in natural gas prices, the variability in economic conditions, recovery from the COVID-19 pandemic, the operating status of other electric generation facilities in the region, and electric grid conditions. The CO_2 emissions data in Table 1 comes from the Environmental Protection Agency's Air Markets Program Data website: https://ampd.epa.gov/ampd/ and is supplemented by CO_2 emissions data from emission reports contained in RGGI's CO_2 Allowance Tracking System (COATS): www.rggi.org.

Table 1 and Bar Chart

Maine RGGI Source Annual CO_2 Emissions (U.S. Tons)							
Year	FPL Energy Wyman	Androscoggin Energy	Bucksport Generation	Maine Independence Station	Westbrook Energy Center	Rumford Power	Annual Totals
2000	1,731,846	519,770	0	744,689	0	153,306	3,149,611
2001	1,010,729	565,951	731,450	1,402,914	1,042,637	762,634	5,516,315
2002	397,062	608,960	829,490	1,582,011	1,580,945	782,900	5,781,368
2003	1,119,510	571,181	778,527	1,025,612	1,358,157	661,740	5,514,727
2004	616,030	472,481	810,749	1,178,901	1,412,282	701,496	5,191,939
2005	788,209	1,019	792,796	1,153,173	1,419,619	432,298	4,587,114
2006	70,853	24,826	780,609	946,041	1,341,636	207,857	3,371,822

2007	357,638	349,532	708,412	831,251	991,719	294,645	3,533,197
2008	185,915	481,163	796,139	730,736	1,090,087	407,238	3,691,278
2009	242,371	357,730	809,077	995,235	1,015,132	223,948	3,643,493
2010	198,691	489,273	813,064	1,130,402	1,079,445	232,583	3,943,458
2011	107,642	416,387	766,548	778,158	1,081,176	187,549	3,337,460
2012	77,825	357,371	787,071	532,676	1,018,917	166,212	2,940,072
2013	211,641	352,862	793,406	161,783	1,011,082	81,649	2,612,423
2014	232,538	318,997	259,499	485,857	775,593	182,988	2,255,472
2015	434,966	248,856	40,954	147,372	778,410	127,963	1,778,521
2016	93,552	114,878	6,323	247,610	916,993	183,510	1,562,866
2017	103,597	136,614	5,092	147,329	572,160	104,859	1,069,651
2018	151,727	232,300	8,940	104,306	616175	69,767	1,183,215
2019	10,136	248,036	1,313	125,099	390,823	29,423	804,830
2020	16,456	277,735	2,987	81,955	413,691	74,515	867,339
2021	9,298	300,774	4,364	235,978	771,010	145,038	1,466,462
2022 (projected)	218,462	314,284	7,243	293,754	1,012,112	189,862	2,035,717

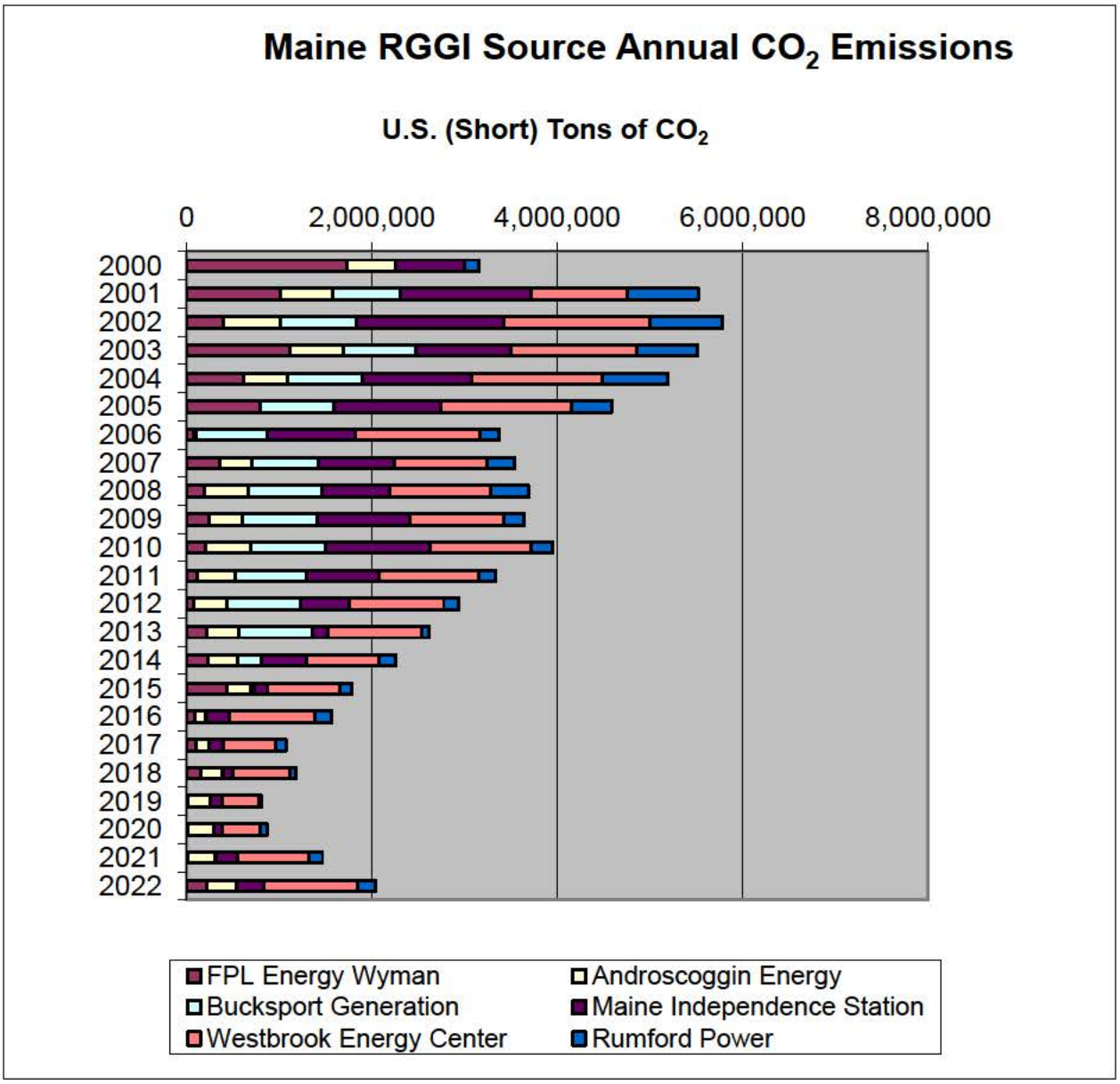

Maine RGGI Source Annual CO_2 Emissions
U.S. (Short) Tons of CO_2
0
2,000,000
4,000,000
6,000,000
8,000,000
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
FPL Energy Wyman
Androscoggin Energy
Bucksport Generation
Maine Independence Station
Westbrook Energy Center
Rumford Power

Table 2 shows annual CO_2 emissions data from all RGGI units in the region, by state, from 2000 through 2022. Emissions data for 2022 will not be quality-assured until the second quarter of 2023, so they are included only as projected numbers in Table 2 and its associated Bar Chart, below. The CO_2 emissions data in Table 2 comes from the Environmental Protection Agency's Air Markets Program Data website: https://ampd.epa.gov/ampd/ and is supplemented by CO_2 emissions data from emission reports contained in RGGI's CO_2 Allowance Tracking System (COATS): www.rggi.org. Numbers in this report may differ from numbers in previous reports due to adjustments made by individual states based on certain CO_2 emissions being eligible for exemption because of individual state set-aside programs, eligible biomass related emissions, or eligible combined heat and power thermal output related emissions.

Table 2 and Bar Chart

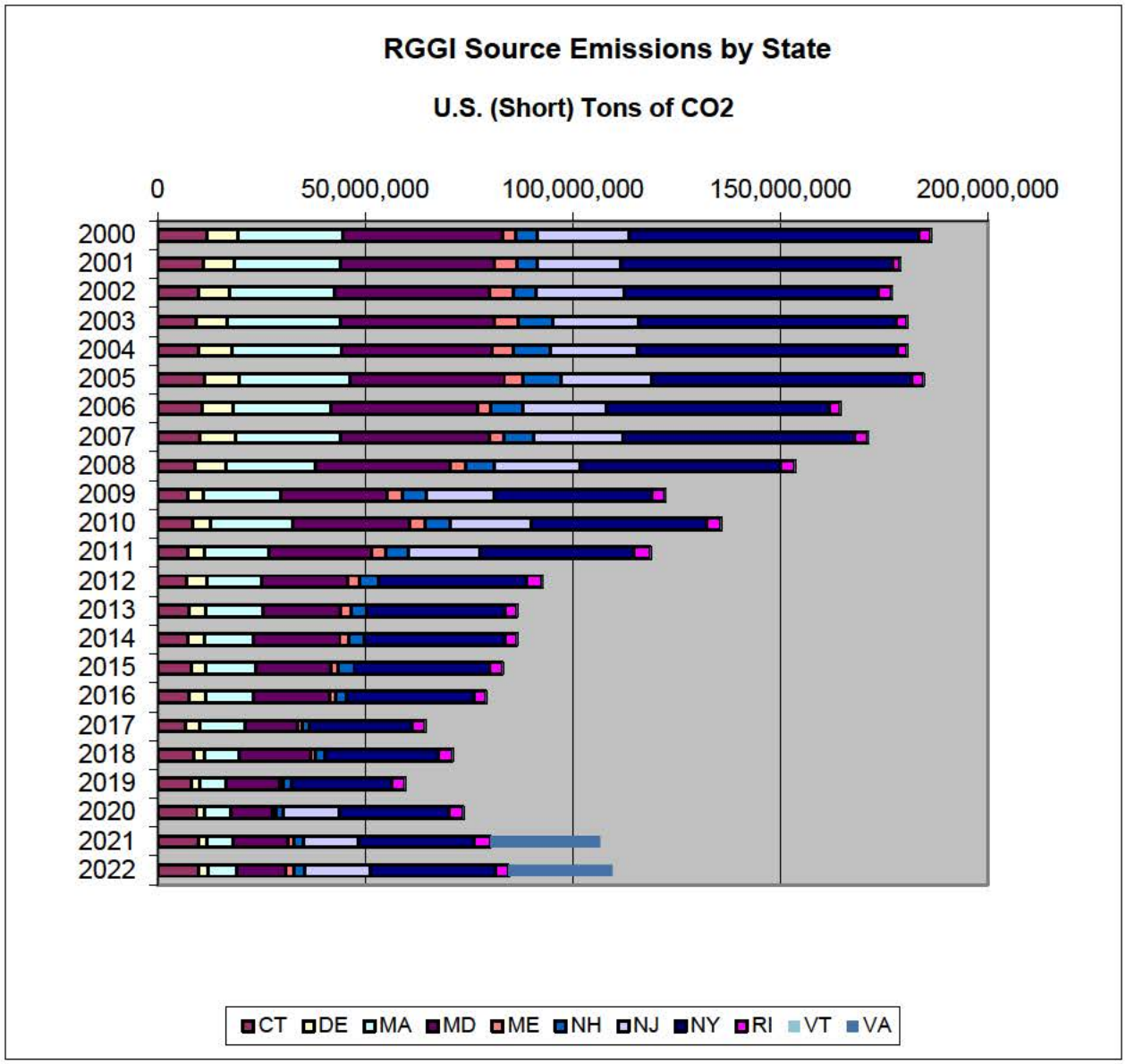
RGGI Source Annual CO_2 Emissions by State (U.S. Tons)

Year	CT	DE	MA	MD	ME	NH	NJ	NY	RI	VT	VA	ANNUAL TOTALS
2000	11,977,434	7,308,248	25,452,680	38,446,856	3,156,292	5,178,731	21,954,959	69,809,356	2,959,594	24,914	**	**186,269,063**
2001	11,005,310	7,612,366	25,400,430	36,980,555	5,517,285	4,862,445	20,177,621	65,553,672	1,782,110	22,015	**	**178,913,809**
2002	9,842,414	7,616,896	25,278,273	37,084,544	5,784,563	5,556,992	21,145,667	61,367,406	3,254,015	5,171	**	**176,935,941**
2003	9,273,759	7,628,367	27,218,204	37,064,738	5,515,325	8,478,382	20,543,331	62,129,292	2,668,990	12,094	**	**180,532,482**
2004	9,989,119	7,884,001	26,369,630	36,281,466	5,191,939	8,812,538	21,133,145	62,612,353	2,219,100	14,779	**	**180,508,070**
2005	11,323,844	8,300,628	26,640,945	37,263,686	4,587,114	8,972,027	21,937,521	62,718,683	2,692,228	7,781	**	**184,444,457**
2006	10,761,759	7,561,295	23,449,199	35,233,070	3,371,822	7,568,884	20,224,255	53,638,129	2,625,422	6,337	**	**164,440,172**
2007	10,052,782	8,744,154	25,366,733	35,700,194	3,533,197	7,314,954	21,515,622	55,717,151	3,161,200	6,112	**	**171,112,099**
2008	8,988,858	7,615,966	21,438,041	32,383,517	3,691,278	7,095,147	20,601,805	48,348,177	3,292,517	2,559	**	**153,457,865**
2009	7,322,364	3,708,331	18,661,076	25,572,943	3,643,493	5,769,881	16,359,443	37,861,408	3,416,783	1,965	**	**122,317,687**
2010	8,527,102	4,299,269	19,804,384	27,958,958	3,943,458	5,899,447	19,681,308	42,113,171	3,504,392	3,756	**	**135,735,245**
2011	7,148,159	4,150,396	15,634,925	24,699,638	3,337,460	5,525,369	17,117,779	37,148,379	3,946,582	6,537	**	**118,715,224**
2012	7,117,572	4,839,522	13,218,526	20,596,979	2,940,072	4,642,898	*	35,640,442	3,735,785	2,319	**	**92,734,115**
2013	7,456,580	4,285,050	13,677,462	18,683,424	2,612,423	3,653,195	*	33,476,561	2,771,105	2,761	**	**86,618,561**
2014	7,271,363	3,922,999	11,795,107	20,903,449	2,255,472	3,573,178	*	34,028,752	2,767,290	2,708	**	**86,530,318**
2015	8,154,364	3,519,097	12,039,394	18,050,117	1,778,521	3,818,378	*	32,550,962	3,075,646	1,216	**	**82,987,695**
2016	7,681,343	4,042,227	11,389,968	18,332,243	1,562,866	2,546,809	*	30,666,015	2,829,861	2,678	**	**79,054,010**
2017	6,832,734	3,244,029	10,888,903	12,678,303	1,069,651	1,982,047	*	24,577,905	3,213,211	4,349	**	**64,491,132**
2018	8,743,239	2,716,368	8,107,721	17,203,574	1,183,215	2,297,766	*	27,215,742	3,539,026	2,072	**	**71,008,723**
2019	8,107,905	2,024,610	6,436,139	12,925,318	804,829	1,994,454	*	24,408,013	3,151,489	546	**	**59,853,303**
2020	9,432,967	2,018,528	6,109,756	10,160,365	867,339	1,722,230	13,548,775	26,217,597	3,580,279	1,085	**	**73,658,921**

2021	9,971,233	1,856,439	6,456,382	13,123,694	1,466,462	2,291,357	13,232,337	27,897,486	3,781,117	3,059	26,566,278	**106,645,844**
2022 (projected)	9,891,466	2,212,130	7,090,568	11,666,095	2,035,717	2,598,834	15,681,373	30,182,493	3,068,849	3,903	25,175,110	**109,606,538**

** New Jersey's emissions from 2012 through 2019 are not included in Table 2 since New Jersey ended its participation in RGGI at the end of 2011. Beginning January 1, 2020, New Jersey resumed participation in RGGI, so emissions from New Jersey are again included, beginning with calendar year 2020.*

*** Virginia did not begin participation in RGGI until January 1, 2021, so emissions data for Virginia are not included in this table until calendar year 2021.*



Reductions of greenhouse gas emissions from conservation programs funded by the Regional Greenhouse Gas Initiative Trust Fund.

To date, the cumulative carbon dioxide savings over the life of the measures installed through the Trust's RGGI-funded conservation programs is estimated at 5,112,054 short tons. These savings can be attributed to both direct fossil fuel reductions and reduced electricity use. In June 2013, the Maine Legislature passed LD 1559, *An Act to Reduce Energy Costs, Increase Energy Efficiency, Promote Electric System Reliability and Protect the Environment*, also referred to as the Omnibus Energy Bill (Public Law 2013, Chapter 369). The Omnibus Energy Bill authorized the Trust to fund, on a large scale, projects that save heating oil, Maine's most common heating fuel.
In the spring of 2016, the Maine Legislature passed LD 1398, *An Act to Reduce Electric Rates for Maine Businesses* (Public Law 2016, Chapter 498), amending the Efficiency Maine Trust Act to provide new direction on the allocation of RGGI investments. Beginning in fiscal year 2017 (FY 2017), the amended law required the Trust to allocate $3 million annually to the PUC to be disbursed as "rate relief" to a select group of energy-intensive manufacturers, known as "affected customers."

In light of declining RGGI revenues over a period of multiple quarters thereafter, the Maine Legislature instituted further amendments to the statute in the spring of 2017 through LD 1313, *An Act To Establish Energy Policy in Maine* (Public Law 2017, Chapter 282). First, it reduced the $3 million annual affected customer transfer to $2.5 million in FY 2018 and $2.5 million in FY 2019 and added a $1.0 million payment in FY 2020. FY 2020 was the last year of the set-aside of RGGI funds for affected customers. Second, it eliminated, for the next three years, the requirement that the Trust split the remaining RGGI revenues evenly between residential and commercial and industrial programs. In the spring of 2019, the Maine Legislature revised the statute once again through LD 398, *An Act To Allow for Greater Flexibility in Addressing Energy Efficiency Needs in the State* (Public Law 2019, Chapter 69), eliminating the sector allocation requirements.

The objectives currently set in Maine statute for the Trust's use of RGGI funds are to support the goals and implementation of the carbon dioxide cap-and-trade program established under Title 38, section 580-B, and to promote measures that reduce electricity consumption, lower energy costs, and increase energy efficiency or reduce greenhouse gas emissions.

Reductions of greenhouse gas emissions from offset projects.

The offset project certification and application process was implemented in June of 2009. Independent third-party verifier status has been approved for private entities in several of the RGGI participating states. Maine has received and approved applications from two entities for providing independent third-party verification services; however, to date, Maine has received no applications for RGGI offset projects located within the state. There has only been one project that has completed the application process in the entire RGGI region. It is possible the demand for offset projects and their associated allowances may increase if allowance prices continue to increase to a point where offset projects become more economically competitive with allowances that can be purchased at auction or within the secondary market.

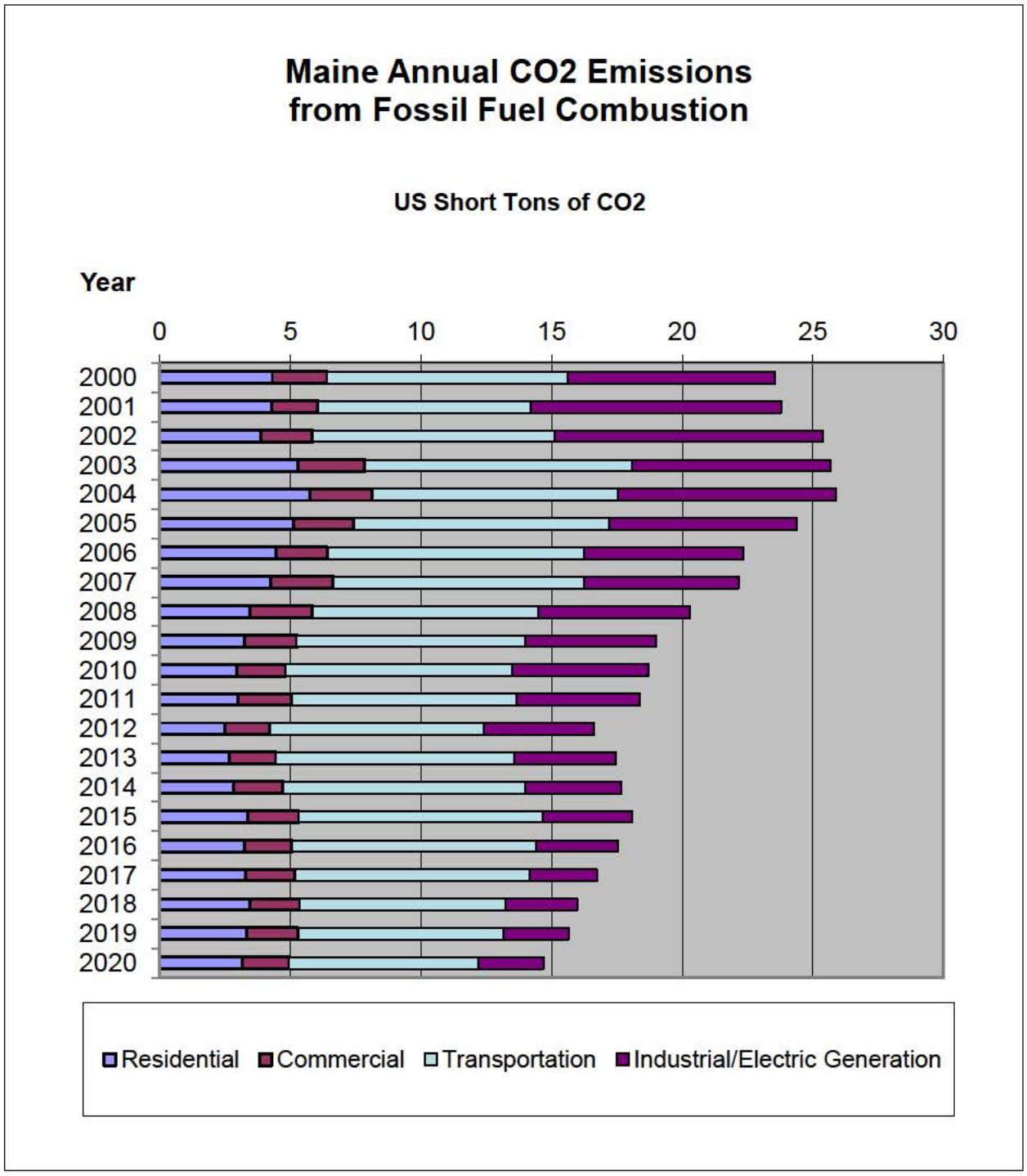
B. The improvements in overall carbon dioxide emissions and energy efficiency from sources that emit greenhouse gases, including electrical generation and fossil fuel-fired units.

The yearly totals displayed in Table 3 and its associated Bar Chart show the improvements in CO_2 emissions from source sectors within Maine that emit greenhouse gases. The CO_2 emissions data in Table 3 is based on data from the *Ninth Biennial Report on Progress toward Greenhouse Gas Reduction Goals*: www.maine.gov/dep/publications/reports and updated with data from the Environmental Protection Agency's State Implementation Tool (SIT) for 2020.

Table 3 and Bar Chart

Maine Annual CO_2 Emissions from Fossil Fuel Combustion (In Millions of U.S. Tons)					
Year	Residential	Commercial	Transportation	Industrial/Electric Generation	Total
2000	4.31	2.09	9.20	7.96	23.56
2001	4.29	1.76	8.14	9.59	23.78
2002	3.86	2.00	9.25	10.26	25.37
2003	5.28	2.56	10.25	7.58	25.67
2004	5.74	2.40	9.40	8.34	25.88
2005	5.12	2.32	9.75	7.21	24.40
2006	4.44	2.00	9.81	6.11	22.36
2007	4.24	2.40	9.58	5.94	22.16
2008	3.44	2.40	8.66	5.79	20.29
2009	3.24	2.01	8.75	5.00	19.00
2010	2.94	1.89	8.66	5.23	18.72
2011	3.01	2.04	8.60	4.73	18.38
2012	2.48	1.74	8.17	4.22	16.61
2013	2.66	1.78	9.14	3.88	17.46
2014	2.83	1.89	9.27	3.67	17.67
2015	3.36	1.96	9.36	3.43	18.10
2016	3.26	1.79	9.36	3.13	17.54
2017	3.30	1.87	8.99	2.58	16.74
2018	3.44	1.92	7.89	2.73	15.98
2019	3.34	1.96	7.85	2.49	15.64
2020	3.16	1.78	7.25	2.50	14.69

Note: Emissions data for calendar years 2021 and 2022 are not yet available.


Maine Annual CO2 Emissions
from Fossil Fuel Combustion
US Short Tons of CO2
Year
0
5
10
15
20
25
30
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Residential
Commercial
Transportation
Industrial/Electric Generation

C. The maximization of savings through systemic energy improvements statewide.

The Trust's programs are described in more detail in section E. A review of the Trust's FY 2022 annual report[1] illustrates a comprehensive suite of cost-effective statewide programs, operating under the brand of "Efficiency Maine," made possible through effective marketing and vendor partnerships. This has allowed the Trust to develop a robust, low-cost infrastructure for delivering conservation programs to Maine's energy consumers.

By using RGGI funds to provide technical assistance and financial incentives, the Trust's programs have succeeded in helping Maine's residential, institutional, commercial, and larger industrial energy customers to make investments in their energy infrastructure. Leveraging RGGI funds, these customers have installed such upgrades as home insulation, new heating systems, and improved industrial processes that otherwise would not have occurred. Directing RGGI funds to be invested through the Trust's programs is helping Maine's energy consumers make a transition to a higher level of energy efficiency and reduced reliance on fossil fuels, while enjoying lower greenhouse gas emissions and operating costs.

D. Research and support of new carbon dioxide offset allowance categories for development in the State.

Until recently, CO_2 allowance prices associated with the RGGI program auctions had remained below $7.50 per allowance, with levels generally in the $3 to $6 range. Due to this relatively low cost of allowances, there has not been much demand for offset allowances (or the projects that create them). This may change with the recent uptick in CO_2 allowance prices over the last couple of years, with the auction clearing price for the fourth quarter of 2022 reaching nearly $13.00 per allowance.

Public Law 2013, Chapter 369, section D-8, the Omnibus Energy Bill, directs the Department and the Commission to work together to develop and promote for recognition by the other states participating in RGGI, a modification of the existing end-use energy efficiency offset category to provide incentives for industrial and residential consumers to switch from the use of oil and coal to fuels with lower greenhouse gas emissions. The law also directs the Department and the Commission to report progress on the development of this offset category as part of this annual report. To date, the Department and Commission have conferred and exchanged ideas on how best to move forward with this directive. However, considering the current lack of demand for offset allowances; the fact that many residential, commercial, and industrial customers have already switched to natural gas for economic reasons alone; and issues associated with the "maximum market penetration rate" concept, the Department and Commission have determined that expending time and effort on developing this offset project category is not a cost-effective use of resources at this time.

[1] Efficiency Maine Trust, FY2022 Annual Report, November 29, 2022.

The “maximum market penetration rate” concept means that if offset projects within a specific category have already penetrated the market at a rate of 5% or more, offset projects in that category no longer qualify for offset allowances under the program. The Department and Commission will continue to monitor the level of demand for offset allowances, and if things change, will re-evaluate the situation.

E. Management and cost-effectiveness of the State's energy conservation and carbon reduction programs and efforts funded by the RGGI Trust Fund through Efficiency Maine established pursuant to Title 35-A, section 10109.

Table 4 shows how the Trust expended RGGI funds in FY 2022.

Table 4: FY 2022 RGGI Funding

Expenditure Category	FY 2022 Funds
Commercial & Industrial Custom Program	$ 680,598
Commercial & Industrial Prescriptive Program	$ 1,052,055
Small Business Initiative	$ 1,306,336
Home Energy Savings Program	$ 6,769,588
Low-Income Initiatives	$ 2,926,630
Strategic Initiatives	$ 705,392
Administration	$ 549,063
Inter-Agency Transfers	$ 59,500
Rate Relief	$ -
RGGI Inc. Payment	$ 23,085
Total	**$ 14,072,247**

Table 5 shows savings of electricity (kWh), heating and process fuels (MMBtu), and greenhouse gases (GHG) attributable to the expenditure of RGGI funds.

Table 5: Results Attributable to RGGI Funds

Expenditure Category	FY 2022 Funds	Annual kWh Savings	Annual MMBtu Savings	Annual GHG Savings (Tons CO_2)
Commercial & Industrial Custom Program	$ 680,598	-	62,153	5,004
Commercial & Industrial Prescriptive Program	$ 1,052,055	-	24,043	1,936
Small Business Initiative	$ 1,306,336	-	14,698	1,183
Home Energy Savings Program	$ 6,769,588	1,635,856	36,839	3,805
Low-Income Initiatives	$ 2,926,630	-	16,913	1,362
Strategic Initiatives	$ 705,392	N/A		
Administration	$ 549,063			
Inter-Agency Transfers	$ 59,500			
Rate Relief Fund	-			
RGGI Inc. Payment	$ 23,085			
Total	**$14,072,247**	**1,635,856**	**154,646**	**13,291**

Notes on Tables 4 and 5:

(1) Commercial & Industrial Custom Program funds only reflect energy upgrades that were *completed* in FY 2022. Some RGGI funds were allocated in FY 2022 to projects that will be completed in future years. The spending and savings associated with those projects will be reflected in future RGGI annual reports.

(2) These tables are limited to expenditures from RGGI. They do not reflect the Trust's use of other sources of funds – including the Electric Conservation Procurement, the Natural Gas Conservation Procurement, the Forward Capacity Market, the Maine Power Reliability Program Settlement, New England Clean Energy Connect Settlement, and the Volkswagen Settlement Funds – which were variously used to fund additional expenditures in the categories shown in the tables. The comprehensive expenditures of the Trust are published in the Trust's FY 2022 Annual Report.

(3) FY2021 expenditures for the Home Energy Savings Program (HESP) were misreported in the RGGI 2021 Annual Report. The total HESP expenditures should have been $4,350,491, $1,147,544 greater than the $3,202,948 reported. The unreported expenditures resulted in 3,964,774 kWh in annual savings. Annual MMBtu savings remain unchanged. Annual GHG Savings are 4,853 Tons CO_2 – an increase of 2,034 over the previously reported value.

(4) As noted in Section G, RGGI revenues increased substantially in 2021, and again in 2022. The Trust's spending did not see a corresponding increase in FY 2021 for several reasons. First, FY 2021 saw considerable slowdowns in some areas of market activity due to the COVID-19 pandemic. Second, the Trust's FY 2021 RGGI budget was significantly understated; with auction revenues coming in well above forecasts, the Trust did not have sufficient time to respond in its programs. In FY 2022, the Trust adjusted by increasing RGGI spending on weatherization and heat pumps, setting aside funds for a loan pool, and allocating $5 million to a battery pilot. These efforts made an impact on expenditures ($14.07 million in FY 2022 vs. $8.22 million in FY 2021) and the Trust had an additional $4.2 million in committed, yet unspent RGGI funds at the end of the year. Nevertheless, revenues still outpaced investment and auction revenues continued to come in above forecasts. The Trust therefore made further adjustments for FY 2023, including increasing spending on heat pumps and heat pump water heaters in Low Income Initiatives, allocating additional resources for weatherization and heat pumps in HESP, expanding a whole-home heat pump pilot program, and augmenting training development, call center support, and other initiatives.

Commercial & Industrial Custom Program

The Trust's Commercial & Industrial (C&I) Custom Program incentivizes tailored energy projects that require unique engineering analyses and/or projects with energy conservation measures that are not covered by the prescriptive incentive program. The C&I Custom Program is designed to overcome the barriers that confront Maine's larger businesses and institutions when making investments in complex energy efficiency and distributed generation projects. These projects represent important facility improvements that keep operating costs down for Maine's largest energy users.

The Trust completed 40 custom projects in FY 2022, five of which were fully or partially funded using $680,598 in RGGI funds. This investment comprised approximately 21.3% of the program's overall expenditures and accounted for an estimated 62,153 MMBtu of energy savings annually.

Commercial & Industrial Prescriptive Program

The Trust's Commercial & Industrial Prescriptive Program (CIP) offers fixed-price financial incentives for a predefined list of widely available "off-the-shelf" efficiency measures. Typical measures promoted through this program include LED lighting fixtures; heating and cooling systems; and sector-specific solutions such as commercial kitchen and agricultural equipment. These measures have practical applications across the state in commercial, industrial, nonprofit, government, and institutional settings. The menu of fixed incentives is used to overcome the barrier represented by the incremental cost of high-efficiency equipment. The program encourages businesses to install more energy-efficient models than they would have otherwise.

In FY 2022, CIP invested $1,052,055 of RGGI funds to support incentives for high-efficiency heating systems and ancillary equipment, with a particular focus on expanding the promotion of variable refrigerant flow (VRF) heat pump technology. This investment comprised approximately 12.2% of the program's overall expenditures. The efficiency projects made possible by these RGGI funds will save an estimated 24,043 MMBtu annually in avoided energy consumption.

Small Business Initiative

The Small Business Initiative (SBI) delivers efficiency retrofits directly to Maine's small businesses. In FY 2022, the initiative focused on lighting and heat pump upgrade opportunities at businesses that have a peak demand of 25 kW or less. The initiative combines enhanced rebates, local marketing, competitive product pricing, and contractor support with streamlined delivery to incentivize customers in targeted geographic areas.

In FY 2022, SBI invested $1,306,336 of RGGI funds to incentivize heat pump retrofits. This investment accounted for approximately 45.7% of the program's overall expenditures. The electrification projects made possible through these RGGI funds will help small businesses save an estimated 14,698 MMBtu annually in avoided energy consumption.

Home Energy Savings Program

The Home Energy Savings Program (HESP) drives market-based home weatherization and installation of efficient heating systems by offering rebates and loans, providing customer and vendor education, and developing and maintaining a vendor network. HESP encourages energy efficiency upgrades in single-family homes and multifamily homes with up to four units.

HESP invested $6,769,588 of RGGI funds in FY 2022. While the program continued to leverage these funds to support incentives for biomass boilers, biomass furnaces, geothermal heating systems, and heat pumps, the primary focus was on increased rebates and expanded marketing for weatherization. These efforts drove a considerable increase in activity; indeed, the fourth quarter of FY 2022 was a record-breaking quarter for weatherization. Overall, RGGI investment accounted for approximately 33.8% of the program's total expenditures. The efficiency projects made possible through these RGGI funds will save an estimated 36,839 MMBtu and 1,635,856 kWh annually in avoided energy consumption.

Low-Income Initiatives

The Trust delivers energy-efficiency benefits to low-income households through a portfolio of initiatives within three distinct channels: market-based initiatives, direct-mail campaigns, and direct installations. This blend of approaches is designed to overcome obstacles to cost-effective energy efficiency improvements for low-income Mainers.

Low-Income Initiatives invested $2,926,630 in RGGI funds in FY 2022. This represents a significant increase over FY 2021, where the program's RGGI investment was $40,682. As in HESP, the program leveraged RGGI funds to drive a significant ramp-up in weatherization projects through increased rebates and expanded marketing. It also used RGGI funds to support the installation of heat pump water heaters to replace systems that pull domestic hot water off the boiler (i.e., tankless coil water heating). Overall, RGGI investment accounted for approximately 29.1% of the program's total expenditures. The efficiency projects made possible through these RGGI funds will help low-income Mainers save an estimated 16,913 MMBtu annually in avoided energy consumption.

F. The extent to which funds from the Regional Greenhouse Gas Initiative Trust Fund established pursuant to Title 35-A, section 10109 serve customers from all classes of the State's transmission and distribution utilities.

Funding from the Trust was used to provide programs for residential (including low-income), commercial and industrial customer classes, including very large customers who receive electricity at the transmission and sub-transmission level, as set forth in previous sections of this report.

G. The revenues and expenditures of the Regional Greenhouse Gas Initiative Trust Fund, established pursuant to Title 35-A, section 10109.

Revenues from the sale of Maine's allowances under RGGI have totaled $170.1 million as of the end of calendar year 2022 ($5.6 million in 2008, $9.6 million in 2009, $8.3 million in 2010, $5.2 million in 2011, $5.5 million in 2012, $14.1 million in 2013, $11.4 million in 2014, $15 million in 2015, $8.9 million in 2016, $8.3 million in 2017, $9.0 million in 2018, $10.4 million in 2019, $11.5 million in 2020, $20.5 million in 2021, and $26.8 million in 2022). Expenditures of the Regional Greenhouse Gas Initiative Trust Fund are described in section E of this report.

Voluntary Renewable Energy Set-aside

The number of allowances withheld from auction for use in the Voluntary Renewable Energy set-aside program are sufficient to adequately cover the number of claims, therefore the Department recommends maintaining the amount of the set-aside at the current level of 2% of Maine's annual CO_2 allowance budget.

Recommendations

The statutory reporting requirement also provides for the Department, the Commission, and Efficiency Maine to propose improvements to the program for the committee to consider.

Although the Department, the Commission, and Efficiency Maine do not recommend any changes to the program at this time, a regional program review was initiated in late 2021, and will continue into 2023. The conclusions of this program review may result in recommendations for changes to the program. The committees will be made aware of any recommendations that arise from this process.

The Department, the Commission, and Efficiency Maine are available to present this report, and answer any questions you may have.

Respectively submitted,

Melanie Loyzim, Commissioner
Maine Department of Environmental Protection

Philip L. Bartlett II, Chairman
Maine Public Utilities Commission

Michael Stoddard, Executive Director
Efficiency Maine Trust