#VALUE!	The Environmental Integrity Project is a nonprofit organization dedicated to protecting public health and our natural resources by holding polluters and government agencies accountable under the law, advocating for tough but fair environmental standards, and empowering communities fighting for clean air and clean water.

Attachment A: Detailed Data about Individual Plastics Plants and Proposed Projects

Attachment A includes facility-level details for the plastics plants included in EIP's report, "Feeding the Plastics Industrial Complex," available at the link below. See the methods in the report for detailed analysis. This Attachment contains four sheets: 1) a list of existing plastics plants that were built or expanded since 2012; 2) a dataset that contains capacity information for the 50 operating plants included in this analysis; 3) a list of proposed projects and those that are under construction at new or expanding plastics plants; and 4) definitions and acronyms used throughout this document.

Last Updated March 1, 2024.

"Feeding the Plastics Industrial Complex"	Read the full report and detailed methods.
info@environmentalintegrity.org	Contact for more detailed data.

Notes

This report relies on state and federal records for 50 plants that manufacture the main chemical ingredients in plastics and that have been built or expanded in the U.S. since 2012. EIP also reviewed the permits and company announcements of proposed new plants and expansions. In terms of the scope of our review, we included in our report's definition of "plastics plants" the manufacturing of most of the major chemical ingredients in plastic products, but not facilities that shape plastic nurdles into final end-use products, like plastic spoons or toys. For a more detailed discussion of our scope and methodology, see Appendix A.

Capacity Information	Capacity information was compiled using government records, company websites, fact sheets, press releases, investor presentations, filings made to the U.S. Securities and Exchange Commission (SEC), and industry trade press, among other sources. Capacity figures are presented in metric tons per year.
Proposed Projects	Information about proposed projects and those that are under construction comes from state permit documents, company press releases, and news sources compiled on oilandgaswatch.org as of November 1, 2023. Where available, we use potential greenhouse gas and criteria air pollutant emissions estimates provided by companies in their Clean Air Act New Source Review permits or permit applications. At expanding plants, these estimates reflect potential allowable emission increases over current permitted levels. At new plants, these estimates reflect the potential allowable emissions. Emissions estimates are presented in short tons per year.
Reported Emissions	Criteria air pollutant and hazardous air pollutant emissions data are from state air emissions inventories; greenhouse gas emissions data are from EPA's Greenhouse Gas Reporting Program. Reported emissions are presented in short tons per year or pounds per year and reflect emissions reported for the 2021 calendar year.
Enforcement and Compliance	Enforcement and compliance data were sourced from the EPA's Enforcement and Compliance History Online database (ECHO). This analysis is limited to Clean Air Act information as of December 4, 2023. Compliance status, formal enforcement actions, and penalty information were sourced from detailed facility reports. Each report contains quarterly compliance status dating back three years. In this report, quarter one runs from October 2020 to December 2020, and quarter 12 runs from July 2023 to September 2023. Formal enforcement actions and associated federal and state penalty data collected for this report follow the same timespan as compliance status data, October 2020 to September 2023.
Subsidies	Subsidy information comes from state records, the Associated Press, and research provided by the nonprofit organization Together Louisiana. This report does not include federal subsidies, nor does it attempt to quantify or verify employment promises made by companies that received subsidies. The facilities and projects included in this report may have received additional incentives from other taxpayer-funded government programs.
Emission Events	Each state has different reporting requirements for unauthorized or unexpected discharges of air pollution. Because of this, event counts and event-related emissions should not be compared between facilities in different states or between states. In Texas, our analysis includes reports that companies filed with the State of Texas Electronic Emissions Reporting System (STEERS) between January 2018 and June 2023. In Louisiana, our analysis includes emergency air incident reports available through the state's Electronic Document Management System (EDMS) for incidents that occurred between January 2018 and April 2023. For more information on how these events are defined and quantified in this report, as well as data sources and caveats, please see the methodology section in Appendix A.
Demographic Estimates	EIP estimated demographics around facilities using data from EPA's Environmental Justice Screening Tool (EJSCREEN) version 2.2 and facility coordinates obtained from government records or EPA's ECHO database. Where needed, coordinates were adjusted to represent the center of a facility. EIP mapped facility locations using ArcGIS Pro 3.0.2 and generated a three-mile buffer for each facility. For facilities without overlapping buffers—i.e. those that are not within three miles of another facility, based on buffer boundaries— demographic estimates were pulled directly from EPA's EJSCREEN 2.2. For facilities with overlapping three-mile buffers—i.e. those that are within three miles of one or more facilities—EIP generated a dissolved buffer for each grouping of facilities. EIP generated a shapefile for each grouping and uploaded the shapefile to EJSCREEN to generate demographic estimates.

Facility Information												Compliance and Enforcement Information (Dec. 2020 - Sept. 2021)						Accidents, Upsets, or Other "Emissions Events" (Jan. 2018 – June 2021)		2021 Reported Emissions									Demographic Information within 3 miles (Index Scores)					
Parent Company	Plant Name	County or Parish	State	Latitude	Longitude	Acts or Expansion	Product(s)	EU RED Facility Flag	EPA Air ERR ID	EPA GHGRP ID	State Facility ID	Fenceline Monitoring Potentially Required by Texas Air Rules and R&D Facilities	Clean Air Act Compliance Notes (as of Sept. 2021)	No. of Quarters Facility was in Noncompliance	No. of Quarters with Significant Violation Designation (Federal Only)	No. of Clean Air Act Enforcement Actions	No. of Clean Air Act Penalties Issued	Total Value of Clean Air Act Penalties ($)	Total number of emissions (flare/fence/stack) events reported	CO2e (short tons/yr)	PM2.5 (short tons/yr)	NOx (short tons/yr)	VOC (short tons/yr)	SO2 (short tons/yr)	CO (short tons/yr)	Benzene (lbs/year)	1,3-butadiene (lbs/year)	Ozone Precursors (lbs/year)	Chlorine (lbs/year)	Estimated population within 3 miles	Percent People of Color	Percent Low Income	Percent People with Disabilities	Percent Linguistically Isolated	Asthma Hospitalizations (2012)	Asthma Discharges	Subsidy Programs	Years Funds Received
Ineos	Decatur	Morgan	AL	34.6417	-87.0958	expansion	PET, cyclohexane, PTA		1100377	1000	995	yes	Violation Identified	1	0	0	0	$0	1	Unknown	395,342	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	1,448	69%	33%	15%	5%	N/A	N/A	N/A	
Toyota Motor	Huntsville	Madison	AL	34.7302	-86.6407	expansion	assembly, paint, plastics		1100014	1001486	1001486	yes	No Violations	0	0	0	0	$0	Unknown	45,400	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	4,018	39%	16%	8%	4%	Unknown	Medicaid, Medicare, Catherine Hooks Burkett's 2010		
Evonik	Calvert City	Marshall	KY	37.0467	-88.3508	expansion	ethylene, ethylene oxide, VCM		1100375	1003473	1000421	CAMP, Other	No Violations	0	0	0	0	$0	1	564,000	46.0	586.0	720.0	0.0	172.0	49,000.0	1,242.0	44,000.0	4,000.0	4,018	31.70%	3%	6%	10%	4%	Unknown	Medicaid, Catherine Hooks's 2010		
BASF	Geismar	Ascension	LA	30.1567	-90.9977	expansion	ethylene oxide, ethylene glycol, other petrochemicals (HOF, acrylonitrile)		1100705	1004884	1004388	2005	No Violations	0	0	0	0	$0	16	2,457	976.741	153.4	948.6	524.8	0.14	613.3	4,849.2	19.7	209.4	868.6	2,309	64%	32%	4%	5%	$360,365,895 (SD	Louisiana Economic Hu2021,2021		
Novus Chemicals	Geismar	Ascension	LA	30.2167	-91.0833	expansion	ethylene glycol, ethylene oxide		1100376	1003473	1000421	2005	No Violations	0	0	0	0	$0	13	614,000	46.0	586.0	720.0	0.0	172.0	49,000.0	1,242.0	44,000.0	4,000.0	4,018	31.70%	3%	6%	10%	4%	Unknown	Medicaid, Catherine Hooks Burkett's 2010		
Shell	Geismar	Ascension	LA	30.1567	-90.9977	expansion	ethylene oxide, ethylene glycol, MEG, alpha olefins, other petrochemicals		1100014	1003473	1000421	2005	No Violations	0	0	0	0	$0	13	614,000	46.0	586.0	720.0	0.0	172.0	49,000.0	1,242.0	44,000.0	4,000.0	4,018	31.70%	3%	6%	10%	4%	Unknown	Medicaid, Catherine Hooks Burkett's 2010		
Sasol	Lake Charles Complex	Calcasieu	LA	30.1567	-93.2167	new/restart	ethylene, propylene		1100014	1003473	1000421	2005	No Violations	0	0	0	0	$0	13	614,000	46.0	586.0	720.0	0.0	172.0	49,000.0	1,242.0	44,000.0	4,000.0	4,018	31.70%	3%	6%	10%	4%	Unknown	Medicaid, Catherine Hooks Burkett's 2010		
ExxonMobil/Sasol	Lake Charles Complex	Calcasieu	LA	30.1567	-93.2167	new/restart	ethylene, propylene, ethylene oxide, MEG, ethanol, derivatives		1100014	1003473	1000421	2005	No Violations	0	0	0	0	$0	13	614,000	46.0	586.0	720.0	0.0	172.0	49,000.0	1,242.0	44,000.0	4,000.0	4,018	31.70%	3%	6%	10%	4%	Unknown	Medicaid, Catherine Hooks Burkett's 2010		
Westlake	Sulphur (Petro LA #)	Calcasieu	LA	30.1776	-93.3594	expansion	ethylene, styrene, other petrochemicals		1100377	1004884	1003561	4564	yes	No Violations	0	0	0	0	$0	12	26,548	176.260	35.1	772.4	63.7	6.3	158.4	4,195.2	9,149.5	Unknown	9841	9,579	1.8%	10%	13%	8%	$156,788,432 (SD	Louisiana Economic Hu2015,2020		
WestRock/Law	Lake Charles	Calcasieu	LA	30.2181	-93.1837	expansion	ethylene, MEG		1100702	1001546	1001555	2005/21, 1015/20	yes	Eligible/Priority Violations	12	12	0	0	$0	5	15,911	769.057	25.9	755.8	91.2	4.6	230.1	1,332.7	1,076.3	Unknown	9841	10,384	1.8%	10%	7%	8%	$457,698,725 (SD	Louisiana Economic Hu2015,2020		
ExxonMobil	Baton Rouge	East Baton Rouge	LA	30.5122	-91.1791	expansion	ethylene, polyethylene, polypropylene		1100014	1000015	1000015	5919	No Violations	0	0	0	0	$0	6	39,002	Unknown	45.4	153.4	134.0	37.6	144.5	Unknown	Unknown	Unknown	Unknown	27,334	95%	53%	15%	9%	$4,968,352 (SD	Louisiana Economic Hu2015,2020		
Formosa	Baton Rouge	East Baton Rouge	LA	30.5122	-91.1791	expansion	polypropylene		1100014	1000015	1000015	5919	yes	Eligible/Priority Violations	12	12	0	0	$0	6	39,002	Unknown	45.4	153.4	134.0	37.6	144.5	Unknown	Unknown	Unknown	Unknown	27,334	95%	53%	15%	9%	$4,968,352 (SD	Louisiana Economic Hu2015,2020		
Formosa Polymers	Gonzales	Ascension	LA	30.2469	-90.9065	expansion	polypropylene		1100014	1003473	1000421	2005	No Violations	0	0	0	0	$0	13	614,000	46.0	586.0	720.0	0.0	172.0	49,000.0	1,242.0	44,000.0	4,000.0	4,018	31.70%	3%	6%	10%	4%	Unknown	Medicaid, Catherine Hooks Burkett's 2010		
Dow	Plaquemine	Iberville	LA	30.3289	-91.2396	expansion	ethylene, polyethylene, propylene, ethylene oxide, MEG, butanes, ethers	https://echa.epa.gov/ethene	1100014	1004754	1000754	1809	yes	Eligible/Priority Violations	12	12	4	3	$1,150,500	9	54,456	2,268.795	424.2	2,495.4	986.5	125.1	1,667.2	15,998.1	4,465.8	27.7	3,711.3	7,960	93%	54%	17%	7%	$239,867,900 (SD	Louisiana Economic Hu2015,2020		
Dow	Plaquemine	Iberville	LA	30.3289	-91.2396	expansion	ethylene, VCM, ethylene	https://echa.epa.gov/ethene	1100014	1004754	1000754	1809	yes	Eligible/Priority Violations	12	12	4	3	$1,150,500	9	54,456	2,268.795	424.2	2,495.4	986.5	125.1	1,667.2	15,998.1	4,465.8	27.7	3,711.3	7,960	93%	54%	17%	7%	$239,867,900 (SD	Louisiana Economic Hu2015,2020		
Shintech	Addis	Iberville/West Baton Rouge	LA	30.3203	-91.2617	expansion	PVC	https://echa.epa.gov/ethene	1100711	1012513	1006767	43167	yes	No Violations	0	0	2	0	$0	3	895,978	0	45.692	79.9	19.6	49.9	0.4	35.6	Unknown	Unknown	Unknown	15,183.1	1,567.5	6,448	45%	25%	14%	4%	$19,569,315 (SD	Louisiana Economic Hu2015,2020		
Alpek Polyester	Pearl River	Hancock	MS	30.2581	-89.5986	expansion	PET	https://echa.epa.gov/ethene	1100	1000891	1010	1003381	4457	No Violations	0	0	0	0	$0	1	199.88	42.645	30.0	8.9	46.0	0.5	9.5	Unknown	Unknown	Unknown	Unknown	Unknown	704	24%	21%	17%	9%	N/A	N/A	N/A	
Dow	Freeport	Brazoria	TX	28.9453	-95.3594	expansion	ethylene, polyethylene	https://echa.epa.gov/ethene	1100014	1000754	1000754	1809	yes	Eligible/Priority Violations	12	12	4	3	$4,959,500	9	54,456	2,268.795	424.2	2,495.4	986.5	125.1	1,667.2	15,998.1	4,465.8	27.7	3,711.3	7,960	93%	54%	17%	7%	$239,867,900 (SD	Louisiana Economic Hu2015,2020	$1,450,000,000	https://competitive-texas360a,2021, 2019,2022
Chevron Phillips	Sweeny Old Home	Brazoria	TX	28.8726	-95.7446	expansion	ethylene, polyethylene	https://echa.epa.gov/ethene	1100507	1005268	1004767	2010/2020	yes	No Violations	7	7	3	4	$487,345	59	709,981	1,396.347	174.5	1,130.5	474.3	19.9	595.6	14,173.6	12,833.6	Unknown	Unknown	Unknown	1,784	25%	19%	19%	10%	809.726.15	7.5	https://competitive-texas360a,2021, 2019,2022	
Dow	Freeport	Brazoria	TX	28.9547	-95.4855	expansion	ethylene, polyethylene, propylene, ethylene glycol, chlorine, caustic soda	https://echa.epa.gov/ethene	1100402	1000754	1000754	1809	yes	Eligible/Priority Violations	12	12	3	2	$1,466,875	147	1,451,871	1,414.665	537.0	1,588.6	701.8	11.2	1,658.6	29,633.4	5,502.4	9.6	4,274.0	21,466	45%	15%	10%	4%	$301,319,266	11.5	https://competitive-texas360a,2021, 2015,2022, 2	
Dow	Freeport	Brazoria	TX	28.9547	-95.4855	expansion	ethylene, polyethylene, propylene, ethylene glycol, chlorine, caustic soda	https://echa.epa.gov/ethene	1100402	1000754	1000754	1809	yes	Eligible/Priority Violations	12	12	3	2	$1,466,875	147	1,451,871	1,414.665	537.0	1,588.6	701.8	11.2	1,658.6	29,633.4	5,502.4	9.6	4,274.0	21,466	45%	15%	10%	4%	$301,319,266	11.5	https://competitive-texas360a,2021, 2015,2022, 2	
Oxy	Freeport	Brazoria	TX	28.9453	-95.3774	expansion	VCM, EDC, caustic soda, chlorine, hydrochloric acid, salt, sodium ethoxide	https://echa.epa.gov/ethene	1100019	1005	1000005	2005	yes	No Violations	6	6	2	3	$95,113	31	56,200	2,172.726	135.6	599.7	90.7	2.5	143.1	896.4	Unknown	Unknown	Unknown	2,424.4	1,729.8	64.2%	45%	15%	6%	N/A	N/A	N/A	
EQUATE	MIS Global Export Grade	Brazoria	TX	28.9754	-95.3561	new	MEG	https://echa.epa.gov/ethene	1100765	1003221	1001836	1010/1000/2006		No Data	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	15,950	58%	19%	13%	7%	N/A	N/A	N/A	
Exxon	Baytown	Harris	TX	29.7355	-94.9774	expansion	ethylene, ethylene oxide	https://echa.epa.gov/ethene	1100014	1000753	1000753	1811,4731	yes	No Violations	1	1	1	1	$1,524,627	50	2,389,610	2,681.500	446.5	2,681.5	561.5	9.1	1,095.4	36,720.2	44,356.4	42,015.8	44,356	68%	27%	14%	9%	$64,647,999	7.5	https://competitive-texas360a,2017, 2021,2022	
Energyture	Mont Belvieu	Chambers	TX	29.8572	-94.9125	expansion	propylene	https://echa.epa.gov/ethene	1100506	1001	1000196	2005	yes	Eligible/Priority Violations	12	12	7	4	$247,561	110	1,351,966	2,645.345	124.7	767.9	733.3	31.4	775.3	209.2	1,953.4	Unknown	648	2,475	12%	15%	15%	9%	$174,563,112	10.5	https://competitive-texas360a,2021, 2015,2022	
ExxonMobil	Mont Belvieu	Chambers	TX	29.8742	-94.9125	expansion	polyethylene	https://echa.epa.gov/ethene	1100504	1001	1000196	2005	yes	No Violations	1	0	1	1	1,971	92,295	31.4	53.8	102.1	6.5	127.2	Unknown	Unknown	Unknown	Unknown	Unknown	1,895	24%	12%	17%	10%	548,636.125	9.5	https://competitive-texas360a,2021	
BCInc	Odessa	Ector	TX	31.8461	-102.3248	expansion	propylene, polypropylene	https://echa.epa.gov/ethene	1100595	1002	1000	2005	No Data	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	36,855	80%	42%	19%	13%	N/A	N/A	N/A	
Braskem America	Port Neches	Jefferson	TX	29.9972	-93.9656	new	polypropylene, propylene oxide	https://echa.epa.gov/ethene	1100014	1000753	1000753	1811,4731	yes	Eligible/Priority Violations	1	1	1	1	$1,524,627	50	2,389,610	2,681.500	446.5	2,681.5	561.5	9.1	1,095.4	36,720.2	44,356.4	42,015.8	44,356	68%	27%	14%	9%	$64,647,999	7.5	https://competitive-texas360a,2017, 2021,2022	
Braskem	La Porte	Harris	TX	29.7368	-95.0598	expansion	polypropylene, polyethylene	https://echa.epa.gov/ethene	1100506	1003268	1002735		yes	Eligible/Priority Violations	4	4	4	4	$169,535	26	47,369	46.896	3.7	22.1	97.2	6.5	14.7	Unknown	9.6	Unknown	39,984	59%	22%	14%	7%	N/A	N/A	N/A	
Chevron Phillips	Cedar Bayou	Harris	TX	29.8240	-94.9219	expansion	ethylene, polyethylene, propylene, 1-hexene, alpha olefins	https://echa.epa.gov/ethene	1100677	1003268	1002735		yes	Eligible/Priority Violations	12	12	4	3	$1,355,426	58	4,475,483	2,372.742	142.7	586.3	454.6	26.4	659.1	11,265.0	14,917.4	Unknown	816	16,150	58%	16%	12%	5%	$110,150,661	10.5	https://competitive-texas360a,2021, 2015,2022, 2	
ExxonMobil	Baytown Olefins	Harris	TX	29.7355	-95.0197	expansion	ethylene, propylene, butadiene, p-xylene	https://echa.epa.gov/ethene	1100014	1000753	1000753	1811,4731	yes	Eligible/Priority Violations	1	1	1	1	$1,524,627	50	2,389,610	2,681.500	446.5	2,681.5	561.5	9.1	1,095.4	36,720.2	44,356.4	42,015.8	44,356	68%	27%	14%	9%	$64,647,999	7.5	https://competitive-texas360a,2017, 2021,2022, 2	
ExxonMobil	Baytown Olefins	Harris	TX	29.7303	-95.0118	expansion	ethylene, propylene	https://echa.epa.gov/ethene	1100014	1000753	1000753	1811,4731	yes	Eligible/Priority Violations	1	1	1	1	$1,524,627	50	2,389,610	2,681.500	446.5	2,681.5	561.5	9.1	1,095.4	36,720.2	44,356.4	42,015.8	44,356	68%	27%	14%	9%	$64,647,999	7.5	https://competitive-texas360a,2017, 2021,2022, 2	
Infinium	Clear Lake	Harris	TX	29.6258	-95.0616	expansion	ethylene oxide, MEG, acetic acid, VAM	https://echa.epa.gov/ethene	1100764	1005705	1004607	2010/2020/16/a	yes	Eligible/Priority Violations	6	7	4	4	$82,700	37	168,858	898.555	47.6	75.8	63.5	9.6	242.5	126.6	50.2	1.4	Unknown	20,955	63%	17%	14%	6%	N/A	N/A	N/A	
Kuraray	Battleground Complex	Harris	TX	29.7368	-95.0598	expansion	polyethylene, polypropylene	https://echa.epa.gov/ethene	1100506	1004754	1004754	1809	yes	Eligible/Priority Violations	12	12	4	3	$1,466,875	147	1,451,871	1,414.665	537.0	1,588.6	701.8	11.2	1,658.6	29,633.4	5,502.4	9.6	4,274.0	21,466	45%	15%	10%	4%	$301,319,266	11.5	https://competitive-texas360a,2021, 2015,2022, 2	
KOCH FUELS	Houston	Harris	TX	29.7368	-95.0598	expansion	ethylene, propylene	https://echa.epa.gov/ethene	1100506	1003268	1002735		yes	Eligible/Priority Violations	4	4	4	4	$169,535	26	47,369	46.896	3.7	22.1	97.2	6.5	14.7	Unknown	9.6	Unknown	39,984	59%	22%	14%	7%	N/A	N/A	N/A	
Kemira	Pasadena	Harris	TX	29.6243	-95.0420	expansion	ethylene oxide/ethoxylation	https://echa.epa.gov/ethene	1100077	1001776		2010/2020/21/a	yes	Eligible/Priority Violations	8	8	3	3	$154,642	8	509.61	Unknown	0.3	4.4	41.5	0.0	37.5	Unknown	1,167.9	Unknown	Unknown	15,004	58%	19%	13%	6%	N/A	N/A	N/A	
LyondellBasell	Channelview	Harris	TX	29.8243	-95.1348	expansion	ethylene, propylene, butadiene, benzene, propylene oxide, styrene monomer	https://echa.epa.gov/ethene	1100004	1001	1000203	2010/2020/21/a	yes	Eligible/Priority Violations	8	8	3	3	$393,994	66	774,063	2,243.345	195.6	1,240.3	721.1	49.9	2,117.3	19,479.2	14,185.4	Unknown	Unknown	Unknown	16,006	89%	38%	7%	9%	$11,177,666	11.5	https://competitive-texas360a,2021	
LyondellBasell	La Porte	Harris	TX	29.7249	-95.0668	expansion	ethylene, polypropylene, polyethylene, acetic acid, VAM	https://echa.epa.gov/ethene	1100364	1003	1000170	2010/2020/19/a		No Violations	1	0	1	1	$1,443,427	33	216,767	1,342.646	91.5	743.6	216.4	41.1	435.8	1,976.0	4,976.6	Unknown	577.2	11,942	72%	24%	14%	9%	$56,405,749	9.5	https://competitive-texas360a,2016, 2019,2020	
Oxy Vinyls	Deer Park	Harris	TX	29.6681	-95.0143	expansion	ethylene, chlorine, caustic soda	https://echa.epa.gov/ethene	1100019	1005	1000005	2005	yes	No Violations	6	6	2	3	$95,113	31	56,200	2,172.726	135.6	599.7	90.7	2.5	143.1	896.4	Unknown	Unknown	Unknown	2,424.4	1,729.8	64.2%	45%	15%	6%	N/A	N/A	N/A	
TotalEnergies	Bayport/Pasadena	Harris	TX	29.6681	-95.0143	expansion	polyethylene	https://echa.epa.gov/ethene	1100364	1003	1000170	2010/2020/19/a		No Violations	1	0	1	1	$1,443,427	33	216,767	1,342.646	91.5	743.6	216.4	41.1	435.8	1,976.0	4,976.6	Unknown	577.2	11,942	72%	24%	14%	9%	$56,405,749	9.5	https://competitive-texas360a,2016, 2019,2020	
TotalEnergies	Bayport/Pasadena	Harris	TX	29.6681	-95.0143	expansion	polyethylene	https://echa.epa.gov/ethene	1100364	1003	1000170	2010/2020/19/a		No Violations	1	0	1	1	$1,443,427	33	216,767	1,342.646	91.5	743.6	216.4	41.1	435.8	1,976.0	4,976.6	Unknown	577.2	11,942	72%	24%	14%	9%	$56,405,749	9.5	https://competitive-texas360a,2016, 2019,2020	
BASF/ TotalEnergies	Port Arthur	Jefferson	TX	29.9539	-93.9848	expansion	ethylene, propylene	https://echa.epa.gov/ethene	1100364	1003	1000170	2010/2020/19/a		No Violations	1	0	1	1	$1,443,427	33	216,767	1,342.646	91.5	743.6	216.4	41.1	435.8	1,976.0	4,976.6	Unknown	577.2	11,942	72%	24%	14%	9%	$56,405,749	9.5	https://competitive-texas360a,2016, 2019,2020	
Chevron	Port Arthur	Jefferson	TX	29.8853	-93.9336	expansion	ethylene, propylene	https://echa.epa.gov/ethene	1100004	1001	1000203	2010/2020/21/a	yes	Eligible/Priority Violations	8	8	3	3	$393,994	66	774,063	2,243.345	195.6	1,240.3	721.1	49.9	2,117.3	19,479.2	14,185.4	Unknown	Unknown	Unknown	16,006	89%	38%	7%	9%	$11,177,666	11.5	https://competitive-texas360a,2021	
Motiva	Port Arthur	Jefferson	TX	29.8853	-93.9838	expansion	ethylene, propylene	https://echa.epa.gov/ethene	1100004	1001	1000203	2010/2020/21/a	yes	Eligible/Priority Violations	8	8	3	3	$393,994	66	774,063	2,243.345	195.6	1,240.3	721.1	49.9	2,117.3	19,479.2	14,185.4	Unknown	Unknown	Unknown	16,006	89%	38%	7%	9%	$11,177,666	11.5	https://competitive-texas360a,2021	
TotalEnergies Biorefin	Bayport/Port Arthur	Jefferson	TX	29.6658	-93.9933	new	ethylene	https://echa.epa.gov/ethene	1100364	1003	1000170	2010/2020/19/a		No Violations	1	0	1	1	$1,443,427	33	216,767	1,342.646	91.5	743.6	216.4	41.1	435.8	1,976.0	4,976.6	Unknown	577.2	11,942	72%	24%	14%	9%	$56,405,749	9.5	https://competitive-texas360a,2016, 2019,2020	
LyondellBasell	Corpus Christi	Nueces	TX	27.7931	-97.3931	expansion	ethylene, propylene, fuel products	https://echa.epa.gov/ethene	1100004	1001	1000203	2010/2020/21/a	yes	Eligible/Priority Violations	8	8	3	3	$393,994	66	774,063	2,243.345	195.6	1,240.3	721.1	49.9	2,117.3	19,479.2	14,185.4	Unknown	Unknown	Unknown	16,006	89%	38%	7%	9%	$11,177,666	11.5	https://competitive-texas360a,2021	
Flint Hills	Corpus Christi	Nueces	TX	27.8431	-97.5917	expansion	ethylene, propylene	https://echa.epa.gov/ethene	1100004	1001	1000203	2010/2020/21/a	yes	Eligible/Priority Violations	8	8	3	3	$393,994	66	774,063	2,243.345	195.6	1,240.3	721.1	49.9	2,117.3	19,479.2	14,185.4	Unknown	Unknown	Unknown	16,006	89%	38%	7%	9%	$11,177,666	11.5	https://competitive-texas360a,2021	
ExxonMobil/SABIC	Gulf Coast Growth Ventur	San Patricio	TX	27.9342	-97.3331	new	ethylene, polyethylene	https://echa.epa.gov/ethene	1100709	1006	1004	2010/2020/21/a	yes	No Violations	1	0	1	1	$9,107	16	160,085	354.041	15.2	85.5	83.6	0.6	170.9	42,985.2	3,987.6	Unknown	Unknown	Unknown	11,354	58%	19%	13%	7%	$260,453,696	10.5	https://competitive-texas360a,2021	
ExxonMobil/Shin-Etsu	Seadrift	San Patricio	TX	27.9056	-97.3431	expansion	ethylene, VCM, chlorine, caustic soda, EDC	https://echa.epa.gov/ethene	1100019	1005	1000005	2005/21/21/b	yes	No Violations	6	6	2	3	$95,113	31	56,200	2,172.726	135.6	599.7	90.7	2.5	143.1	896.4	Unknown	Unknown	Unknown	2,424.4	1,729.8	64.2%	45%	15%	6%	N/A	N/A	N/A	

*Check: for Louisiana expansion emergency: air incidents reported between Jan. 2018 and April 2021. For more information, please refer to the Methods section in Appendix A.

Facility Information				2022 Production Capacity (metric tons/yr)																									
Parent Company	Plant Name	County or Parish	State	Product(s)	Ethylene	Polyethylene	Propylene	Polypropylene	PEO	PVA	PVC	VCM	EDC	Chlorine	Caustic Soda	Ethylene Oxide	Other	Ethylene_Source	Polyethylene_Source	Propylene_Source	Polypropylene_Source	PVC_Source	PVA_Source	PVC_Source	VCM_Source	EDC_Source	Chlorine_Source	Caustic Soda_Source	Ethylene Oxide_Source	Other_Source	Notes
Unknown	Oconee	Morgan	AL	PET, p-xylene, PTA,						650,000	745,000							p-xylene: 720,000												https://www.indianonerenewables.com/wp-content/uploads/2021/07/Investor-Presentation-Q4-FY21.pdf	https://www.indianonerenewables.com/wp-content/uploads/2021/07/Investor-Presentation-Q4-FY21.pdf
LyondellBasell	Clinton	Clinton	IA	ethylene, polyethylene	474,000	455,000													https://energy.ec.europa.eu/system/files/2021-07/Clinton%20Works_Final-v2.pdf											
Westlake	Calvert City	Marshall	KY	ethylene, ethyl alkali, VCM	362,463							590,000							https://apo.chemanager-online.com/system/files/2021-07/Westlake%20Calvert%20City%20Site%20Profile_Final-v2.pdf											
BASF	Geismar	Ascension	LA	ethylene oxide, ethylene glycol, other petrochemicals (MEG, acetylene, polyol, formic acid, TDI, others)													220,000													
Westlake	Geismar	Ascension	LA	ethylene, polyethylene	864,585						11,710								https://www.westlake.com/locations/geismar-la.aspx	https://www.westlake.com/locations/geismar-la.aspx										
Westlake	Geismar	Ascension	LA	PVC, EDC, VCM, chlorine, caustic soda								930,000	545,000	550,000	524,000	330,000														
Shell	Geismar	Ascension	LA	ethylene oxide, ethylene glycol, MEG, alpha olefins, other petrochemicals													417,164	alpha olefins: 1,300,000; ethylene glycol: 570,442; MEG: unknown													
Shell	Geismar	Ascension	LA	ethylene, polyethylene																										
LyondellBasell/Exxon	Lake Charles Complex	Calcasieu	LA	ethylene, polyethylene, ethylene oxi	1,971,653		500000										346000	VAM: unknown; MEG: unknown	https://apo.chemanager-online.com/system/files/2021-07/Lake%20Charles%20Chemicals%20Plant%20Profile_Final-v2.pdf												
Westlake	Sulphur (Petro Lib II)	Calcasieu	LA	ethylene, styrene, other petrochemica	1,496,853														https://cdnw.ddeg.business.gov.ng/cdn-cwm/files/1/3800027/											
Westlake Chlor	Lake Charles	Calcasieu	LA	ethylene, MMA	1,000,000													MEG: 920,000	https://apo.chemanager-online.com/system/files/2021-07/Lake%20Charles%20Chemicals%20Plant%20Profile_Final-v2.pdf											
Westlake	Plaquemine	Iberville	LA	ethylene, polyethylene, polypropyle	1,000,000	1,246,116		454,844											https://energy.ec.europa.eu/system/files/2021-07/Plaquemine%20Complex%20Profile_Final-v2.pdf	https://apo.chemanager-online.com/system/files/2021-07/Plaquemine%20Complex%20Profile_Final-v2.pdf										
Formosa	Baton Rouge	East Baton Rouge	LA	VCM, PVC															https://www.formosa.com/wp-content/uploads/2021/07/Investor-Presentation-Q4-FY21.pdf	https://www.formosa.com/wp-content/uploads/2021/07/Investor-Presentation-Q4-FY21.pdf										
Formosa	Baton Rouge	East Baton Rouge	LA	VCM, PVC								714,975							https://apo.chemanager-online.com/system/files/2021-07/Baton%20Rouge%20Complex%20Profile_Final-v2.pdf	https://apo.chemanager-online.com/system/files/2021-07/Baton%20Rouge%20Complex%20Profile_Final-v2.pdf										
Phoenix Polymers	Gary-Ohi	Gary-Ohi		polypropylene															https://cdnhqcouncil.s3.wp.id/17/7b/47747ed7f1c47e4389b3ad3d1f3d95dd/160105120.pdf	https://cdnhqcouncil.s3.wp.id/17/7b/47747ed7f1c47e4389b3ad3d1f3d95dd/160105120.pdf										
Dow	Plaquemine	Iberville	LA	ethylene, polyethylene, propylene, e	1,630,867	1,114,000		489,000									520,000	MEG: 211,000; benzene: unknown	https://www.epcnam.com/blog/https://plastic-insider.org/wp-admin/https://www.epcnamedia.com/media/files/sample-mypetchem-program-flow-and-derivatives_20210901.xml#/?at=undefined												
Shintech	Plaquemine	Iberville	LA	ethylene, PVC, VCM, chlorine		500,000						1,210,410	1,900,000					chlorine: 1,037,000	https://www.shintech.com/wp-content/uploads/2021/07/Shintech-Plaquemine-Profile_Final-v2.pdf											
Shintech	Addis	Iberville/West Baton Rouge	LA	PVC								864,585							https://apo.chemanager-online.com/system/files/2021-07/Addis%20Complex%20Profile_Final-v2.pdf										
Aliphi Polymer	Pearl River	Hancock	MS	PET						450,000									https://www.aliphi.com/wp-content/uploads/2021/06/Aliphi_INOA-Announcement_Report.pdf										
Dow	Freeport	Brazoria	TX	ethylene, polyethylene	1,500,000	1,600,000													https://files.ahp-mm-prod-ba.ltbsp.net/https://files.ahp-mm-prod-ba.ltbsp.net/dowwebsite/media/documents/DOW/DOWPortalFiles/StaffPlanReport_1.pdf										
Chevron Phillips	Formosa Ma Chemx	Brazoria	TX	ethylene, polyethylene	1,958,113	1,600,000	594,425												https://apo.chemanager-online.com/system/files/2021-07/Formosa%20Complex%20Profile_Final-v2.pdf	https://www.epcnam.com/blog/https://www.epcnamedia.com/media/files/sample-mypetchem-program-flow-and-derivatives_20210901.xml#/?at=undefined	https://web.archive.org/web/20220616154232/https://pdfs.semanticscholar.org/3f70/0e1dbcc1f1d22f4ecc2ca0ebcdbcc2ca4ebcbe.pdf	https://web.archive.org/web/20220616154232/https://pdfs.semanticscholar.org/3f70/0e1dbcc1f1d22f4ecc2ca0ebcdbcc2ca4ebcbe.pdf								
Dow	Freeport	Brazoria	TX	ethylene, polyethylene, propylene, e	2,060,000	1,270,000	750,000								814,000	680,000		ethylene glycol: unknown	https://cdnw.ddeg.business.gov.ng/cdn-cwm/files/1/3800027/	https://www.epcnam.com/blog/https://www.epcnamedia.com/media/files/sample-mypetchem-program-flow-and-derivatives_20210901.xml#/?at=undefined										
INEOS	Chocolate Bayou	Brazoria	TX	ethylene, polypropylene, propylene,		1,753,000		253,000								465,000		alpha olefins: 540,000; ethylene	https://apo.chemanager-online.com/system/files/2021-07/Chocolate%20Bayou%20Complex%20Profile_Final-v2.pdf	https://apo.chemanager-online.com/system/files/2021-07/Chocolate%20Bayou%20Complex%20Profile_Final-v2.pdf									
Dow	Freeport	Brazoria	TX	VCM, EDC, caustic soda, chlorine, hydrochloric acid, salt, sodium acid, bleach								835,000	2,300,000	2,700,000	3,000,000														
Flint Hills	Port Arthur Complex	Jefferson	TX	ethylene																									
Arco	Sealdrift	Calhoun	TX	polyethylene, ethylene oxide													454,000	MEG: 754,000	https://plastic-insider.org/wp-content/uploads/2021/07/Seadrift_Final-v2.pdf										
Formosa	Point Comfort	Calhoun	TX	ethylene, polyethylene, polypropyle	3,126,573	1,650,000	804,926	743,804				795,000	750,000		914,000		210,000	ethylene glycol: 249,000	https://apo.chemanager-online.com/system/files/2021-07/Point%20Comfort%20Complex%20Profile_Final-v2.pdf	https://www.epcnam.com/blog/https://www.epcnamedia.com/media/files/sample-mypetchem-program-flow-and-derivatives_20210901.xml#/?at=undefined	https://www.sgglobal.com/sites/default/files/Chemicals%20Profile_Final-v2.pdf

Facility Information								Project Information				Proposed Capacity or Capacity Increase (metric tons/yr)									Potential to Emit (short tons per year)						
Parent Company	Plant Name	County or Parish	State	Latitude	Longitude	New or Expansion	Product(s)	State Facility ID(s)	Project Name	Project Description	Clean Air Act Permit Status (as of Nov. 2022)	Operating Status	Expected Completion Year	Ethylene	Propylene	Polyethylene	Polypropylene	PVC	PET	VCM	MMA	MMG or Ethylene Glycol	Other	GHGs	PM2.5	NOx	VOCs	SO2	CO	HAPs
Westlake	Calvert City	Marshall	KY	37.0507	-88.3509	Expansion	ethylene, PVC, VCM	122899, 2966	Westlake Calvert City 2020 Expansion Project	The 2020 Expansion Project would allow Westlake Chemical to increase ethylene production by 50 million pounds per year (a 24 percent increase), vinyl production by 102 million pounds per year (a 10 percent increase), and VCM production by 870million pounds per year (a 10 percent increase) at the then-co-located Calvert City facilities.	Final Issued	Under construction	2023/2024	13,608						245,867					896,113	256.1	137.9	60.2	2.3	554.0	1.6
Mitsubishi	Geismar	Ascension	LA	30.2071	-90.9988	New	MMA	216102	Mitsubishi Chemicals Geismar MMA Plant - Initial Construction	Construction of the largest MMA plant in the world, with capacity to produce up to 500,000 tons of MMA annually. The MMA plant will be the first methyl methacrylate plant in the world to produce and also be constructed to supply fuel to the MMA plant. The facility will be a major source of toxic air pollutants.	Application Pending	Proposed	2026							500,000					707,133	38.6	129.4	79.3	1.8	326.4	
Shell	Geismar	Ascension	LA	30.1866	-90.9996	Expansion	MEG	1156	Shell Geismar - MEG Capacity Expansion	Construction of an additional ethylene oxide/ethylene glycol unit (EOEG-3), which would add 1,200 metric tons per year of monoethylene glycol (MEG) capacity.	Final Issued	Proposed	2024									1,200,000			782,969	18.8	100.8	28.3	1.7	150.4	
Westlake	Geismar	Ascension	LA	30.2118	-91.0182	Expansion	EDC	1158	Westlake Vinyls VCM-S Facility - EDC Expansion	Expansion of ethylene dichloride production at the plant. The expansion would increase the production rate from 2 billion pounds per year to 2.695 billion pounds per year. The modifications would also replace and remove some equipment.	Application Pending	Proposed	2024										EDC: 276,423		Unknown	0.1	-11.5	7.7	1.1	-32.1	
Westlake	Geismar	Ascension	LA	30.2118	-91.0182	Expansion	EDC	1158	Westlake Vinyls VCM-S Facility - VCM and Chlor-alkali Expansion	Construction of two additional VCM units by 0.75 and 1.05Pmillion pounds per day, respectively. The chlor-alkali unit uses salt brine from nearby wells to produce chlorine, and the VCM unit produces VCM by reacting chlorine and ethylene.	Awaiting Application	Proposed	2023							180,462			chlor-alkali: 124,175		Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Westlake/Lotte	Lake Charles	Calcasieu	LA	30.2195	-93.3857	Expansion	MEG, ethylene	203931, 191919	LACCC/Lotte Ethylene Plant Expansion	Construction of a new ethylene unit would increase annual production capacity by 40%, from 1 million metric tons/year to 1.5 million metric tons/year. The expansion will include the construction of two new cracking furnaces and a new storage tank, along with other modifications to existing infrastructure. Construction and operation of a second package boiler at the LACC Ethylene Plant. The second package boiler would add steam capacity at the power-steam provider any additional steam demand created during startup of the LACC ethylene plant or the co-located monoethylene glycol plant owned and operated by Lotte Chemical.	Application Pending	Proposed	2026	600,000											809,930	17.3	-6.1	265.9	3.9	524.1	
Westlake/Lotte	Lake Charles	Calcasieu	LA	30.2195	-93.3857	Expansion	MEG, ethylene	203931, 191919	LACC - Package Boiler 2	Construction of a second 1,410 million pound per year ethylene plant, which would produce polymer-grade ethylene from ethane and propane feedstocks supplied by pipeline. The MPH Expansion Project would increase the production by 2,400 million pounds per year.	Final Issued	Proposed	2023	Unknown								Unknown			120,279	7.7	36.0	3.3	0.6	58.0	
Shintech	Plaquemine	Iberville	LA	30.2172	-91.1746	Expansion	VCM	126478	Shintech Plaquemine - Ethylene Plant 2 (PDP-2)	The MPH Expansion Project would manufacture vinyl chloride monomer (VCM), a gas used to make plastics, PVC pipes, wire coatings, and other products. The VCM would be sent to the PVC production facility at the Plaquemine complex. The MPH Expansion project would increase VCM production by 2,400 million pounds per year.	Application Pending	Proposed	2027	730,284											1,062,904	44.2	121.7	157.8	7.9	675.4	73.8
Shintech	Plaquemine	Iberville	LA	30.2172	-91.1746	Expansion	VCM	126478	Shintech Plaquemine - MPH Expansion Project	Construction of a new chemical complex that would be capable of producing 960 thousand tons per year (kTPY) of ethylene, 1,410 kTPY of propylene, 600 kTA of low-density polyethylene, 660 KTA of polyethylene, and 2,196 KTA of ethylene oxide.	Final Issued	On hold	2024/2029	2,400,000		2,000,000	660,000				2,725,651		2,100,000		13,428,991	519.8	1,242.3	1,667.9	82.9	2,768.9	
Shintech	Addis	West Baton Rouge, Iberville	LA	30.3259	-91.2617	Expansion	Projects to expand PVC packaging and warehouse operations in Addis, including construction of a truck yard, empty container yard, and railroad on approximately 13 acres of land.	34271, 85425, 227283	Shintech Addis Plant Expansion Project	Awaiting Application	Proposed	2023					Unknown							Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
PTTGCA	Ohio Petrochemical Complex	Belmont	OH	39.9140	-80.7730	New	ethylene, polyethylene	066771.59061	PTTGCA Petrochemical Complex - Initial Construction	Construction of a new ethane cracker, two polyethylene units, and supporting infrastructure, including a 1,000 MMBtu/hr ethane cracking furnace, at the proposed Appalachian Petrochemical Complex in Belmont County, Ohio. If constructed, the PTTGCA Petrochemical Complex would be capable of producing 1.3 million tonnes of ethylene, 700 thousand tonnes of high-density polyethylene (HDPE), and 700 thousand tonnes of linear low-density polyethylene (LLDPE) per year.	Expired**	On hold	2023	1,300,000		1,400,000								1,783,000	87.0	162.0	382.0	23.0	142.0	36.0
Chevron Phillips	Sweeny Old Ocean	Brazoria	TX	29.0730	-95.7606	Expansion	ethylene	RN100402329	CP Chem Sweeny/Old Ocean - Cracking Furnace Replacement	This project involves construction of a new furnace to replace an existing one, cracking furnace decoking, addition of new fugitive piping components, and other updates to Unit 22. These updates will increase ethylene production.	Application Pending	Proposed	2023	Unknown											321.024	9.4	30.6	19.4	10.7	2.6E-01	
Dow Fieldingchico	Freeport Alvin PDH	Brazoria Brazoria	TX TX	28.9927 29.2764	-95.3035 -95.1931	Expansion New	polyethylene propylene	RN102022943 RN110093706	Dow Freeport - Polyethylene Plant No. 7 FieldLagniappe PDH Plant - Initial Construction	Construction of a new polyethylene manufacturing facility. Polyethylene Construction of a propane dehydrogenation (PDH) facility that would use propane feedstock to produce 500,000 tons per year of propylene.	Final Issued Final Issued	Proposed Proposed	2023 2024		500,000	Unknown									78,509 Unknown	4.0 86.0	36.4 49.5	153.8 65.8	8.3 62.9	75.0 89.0	3.3
Formosa	Point Comfort	Calhoun	TX	28.6977	-96.5436	Expansion	VCM, EDC	RN102021973	Point Comfort EDC/VCM Reactor	Construction of a new ethylene dichloride/vinyl chloride monomer (EDC/VCM) reactor at the existing Point Comfort facility.	Awaiting Application	Proposed	2023								Unknown			EDC: Unknown		Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Enterprise	Mont Belvieu	Chambers	TX	29.8075	-94.9132	Expansion	propylene	RN102323268	Enterprise Mont Belvieu - Ethylene Dimerization and Metathesis Unit	Construction of a new ethylene dimerization and metathesis unit that would manufacture 1.5 billion pounds of polymer grade propylene per year.	Awaiting Application	Proposed	2027		458,562											Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Enterprise	Mont Belvieu	Chambers	TX	29.8075	-94.9132	Expansion	propylene	RN102323268	Enterprise Mont Belvieu - MTBV Splitter V	Construction of a new Propane/Propylene Splitter, "MTBV Splitter V," at the Enterprise Mont Belvieu Complex, which would be able to process 85,000 barrels of natural gas liquids into Polymer Grade Propylene (PGP) per day.	Awaiting Application	Proposed	2024		Unknown											Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Chevron Phillips	Cedar Bayou	Harris	TX	29.8260	-94.9219	Expansion	propylene	RN101981817	Cedar Bayou - C3 Splitter	Construction of a new C3 Splitter, also known as a Propylene Fractionator, capable of processing 1 billion pounds of propylene per year.	Final Issued	Under construction	2023		455,992											Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
ExxonMobil	Baytown/Olefins	Harris	TX	29.7565	-95.0130	Expansion	ethylene	RN102221293	ExxonMobil Baytown Olefins - Hydrogen Plant	Construction of a new hydrogen production plant. The hydrogen would be produced using natural gas feedstock and then the associated emissions will be captured and sequestered. It would produce up to 1 billion cubic feet per day of hydrogen and have the capacity to transport and store 10 millionmetric tons of CO2 per year. The plant would also produce ammonia.	Awaiting Application	Proposed	2028												Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
ExxonMobil	Baytown/Olefins	Harris	TX	29.7565	-95.0130	Expansion	ethylene	RN102221293	ExxonMobil Baytown Olefins - Ethylene Unit Expansion	Construction of a new cracking furnace and associated equipment at ExxonMobil's Baytown Olefins Plant.	Final Issued	Proposed	2024	Unknown											Unknown	13.3	25.6	10.7	1.1	185.1	
ExxonMobil	Baytown/Chemical	Harris	TX	29.7698	-95.0233	Expansion	polypropylene	RN102074805	ExxonMobil Baytown Chemical - Polypropylene Expansion	Expansion of polypropylene production capacity by 450,000 tons per year.	Final Issued	Under construction	2023				450,000								Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Kuraray	Pasadena	Harris	TX	29.6233	-95.0229	Expansion	ethylene vinyl alcohol monomer	RN100232216	Kuraray Pasadena - Expansion	Expansion of plant capacity by 5,000tons per year. This expansion will bring total plant EVOH	Awaiting Application	Proposed	2024										5,000		Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
LyondellBasell	Channelview	Harris	TX	29.8250	-95.1130	Expansion	ethylene	RN100182281, RN100815699	Channelview New Steam Cracking Furnace	Construction of a new electric steam-cracking furnace at the Channelview Complex. The technology was developed by Technip Energies. LyondellBasell and Chevron Phillips Chemical are partnering on the design, construction, and operation of the "demonstration" unit, which, according to the companies, could reduce greenhouse gas emissions from the steam-cracking process by up to 90 percent.	Awaiting Application	Proposed	Unknown	Unknown											Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Energy Transfer	Nederland	Jefferson	TX	30.0869	-93.9960	New	ethylene	RN111996409	Nederland Ethylene Cracker - Initial Construction	Construction of a new ethylene cracker unit that would be produce 2 million tons of ethylene per year.	Shell Issued	Proposed	2026	Unknown											8,302,916	321.0	1,132.0	1,676.0	169.0	4,502.0	
Motiva	Port Arthur	Jefferson	TX	29.8875	-93.9638	Expansion	polyethylene	RN100227589	Motiva Polyethylene Complex - New LLDPE and HDPE Units	Construction of a new polyethylene manufacturing complex, which will produce both linear low density polyethylene (LLDPE) and high density polyethylene (HDPE).	Final Issued	On hold	2024			1,900,000									1,891,295	44.2	275.3	1,867.9	122.9	964.4	
Motiva	Port Arthur Ethane Cracker	Jefferson	TX	29.8835	-93.9583	New	ethylene	RN110095115	Port Arthur Ethane Cracker - Initial Construction	Construction of a new ethylene cracking unit consisting of eight cracking furnaces next to Motiva's Port Arthur Refinery.	Final Issued	On hold	2023	1,900,000											5,311,395	169.2	360.0	425.0	117.6	1,189.2	
Enterprise	Mont Belvieu or Beaumont	Jefferson, Orange, or Chambers	TX	(29.980932, -94.084277), (30.05976		New	ethylene	RN101882885, RN102176	Enterprise - New Ethane Cracker	Construction of a new ethane cracker unit that would be produce 2 million tons of ethylene per year.	Awaiting Application	Proposed	2027	2,000,000											Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Ineos	Bay City	Matagorda	TX	28.9680	-96.0164	New	MMA	RN111238877	Ineos Bay City MMA Plant - Initial Construction	Construction of a greenfield methyl methacrylate (MMA) plant, which would be capable of producing 250,000 tons of MMA per year from ethylene and natural gas. Construction was expected to commence in the second quarter of 2021 and be completed by the second quarter of 2023.	Final Issued	Under construction	2021								250,000				281,297	20.7	136.3	116.0	31.2	299.7	
Indorama/AlphaTex/Tate&Lyle	Sulphur	Calcasieu	LA	30.2232	-93.3948	New	PET, PTA	RN100431427	Project Janelle - M&G/PET, Diesel & Utilities	Construction of a new polyethylene terephthalate (PET) resin manufacturing complex (PET Plant) that will manufacture PET and terephthalic acid (PTA). Process water for the plant will come from an on-site wastewater treatment plant.	Final Issued	Under construction/On hold	2023					1,100,000					PTA: 1,300,000		1,164,653	78.6	136.3	202.2	24.0	930.8	76.3
LyondellBasell	Corpus Christi	Nueces	TX	27.8181	-97.3919	Expansion	polyethylene	RN100221662	Equistar Corpus Christi - Polyethylene Plant Initial Construction	Construction of a new "world scale" polyethylene plant at Equistar Chemicals's Corpus Christi Complex.	Awaiting Application	Proposed	2028			Unknown										Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Chevron Phillips	Golden Triangle Polymers	Orange	TX	30.0673	-93.7838	New	ethylene, polyethylene	RN130995203	Golden Triangle Polymers Plant - Initial Construction	Construction of a new ethylene cracking unit and two polyethylene units, capable of producing 2 million tons of ethylene and 2 million tons of high-density polyethylene annually.	Final Issued	Under construction	2026	2,000,000		2,000,000										3,891,562	266.0	199.9	1,089.8	165.6	2,171.3	

*Enterprise is planning to build a new ethane cracker at an undetermined location, with three sites proposed in Texas as of November 2021: the Mont Belvieu Complex in Chambers County, the Beaumont Marine Wet Complex in Jefferson County, and the Beaumont Marine East Facility in Orange County.

**PTTGCA was issued a final Clean Air Act pre-construction permit for the Belmont, Ohio, Petrochemical Complex on Dec. 21, 2018. After two permit extensions, the deadline to begin construction on the plant expired on Feb. 21, 2021. In a Feb. 2021 press release, the company stated that it is in the process of drafting a new application and indicated that the reconfiguration will be consistent with the company's "ambitious" net-zero emissions goals (see: https://pttgcoa.com/pttgca-drafting-application-for-modified-ooca-air-permit/).

Definitions

Facility Information	Product(s)	Petrochemicals produced by facilities, including, but not limited to: ethylene, ethylene oxide, ethylene glycol, mono-ethylene glycol (MEG), ethylene vinyl alcohol, polyethylene (PE), propylene, polypropylene (PP), and polyethylene terephthalate (PET).
	ECHO Facility Page	Link to the facility's EPA Enforcement and Compliance History Online detailed facility report.
	EPA Air FRS ID	A unique facility ID managed in EPA's Facility Registry Service.
	EPA GHGRP ID	A unique facility ID managed in EPA's Greenhouse Gas Reporting Program.
	State Facility ID(s)	A unique ID assigned to each facility by a state environmental agency.
	Fenceline Monitoring Potentially Required by EPA (HON, SOCMI, and P&R I Facilities)	Fenceline monitoring for benzene, 1,3-butadiene, and several other hazardous air pollutants may be required by EPA's April 2023 proposed amendments to the National Emission Standards for Hazardous Air Pollutants for facilities that manufacture hazardous organic chemicals (HON), synthetic organic chemicals (SOCMI), and/or a subset of polymer and resin manufacturers (P&R I). Facilities marked 'yes' in this column would be subject to this rule according to EPA records. For a larger list of plants potentially impacted by EPA's proposed fenceline monitoring requirements, see https://www.regulations.gov/document/EPA-HQ-OAR-2022-0730-0091, Appendix C.
Project Information	Clean Air Act Permit Status (as of Nov. 2023)	Clean Air Act permit status defines the Clean Air Act New Source Review pre-construction permit status for a project. Awaiting Application means the company has not yet applied for a permit. Application Pending means the company has applied for a permit, but the state permitting agency has not yet proposed a draft permit for the project. Draft Issued means the state permitting agency has proposed a draft permit for a project but has not yet issued a final permit, and Final Issued means the company has received a final construction permit and may begin construction on the project.
	Operating Status	Projects are classified as Proposed, Under Construction, On Hold, or Operating. Proposed projects have been announced by the company and may have applied for or been issued Clean Air Act pre-construction permits, but they have not started construction. Under Construction projects have been issued a Clean Air Act pre-construction permit and are in the process of being built. On Hold projects are stalled or delayed, according to company announcements, and not yet operational. Operating projects have completed construction and are up and running for commercial purposes.
	Expected Completion Year	Expected completion year is the year a project is expected to begin commercial operations. This is determined using permit documents, subsidy documents, news stories, and company announcements.
Enforcement and Compliance Information	Clean Air Act Compliance Status (as of Sept. 2023)	The facility's compliance status for the Clean Air Act as of September 2023. Compliance determinations such as "Violation Identified" or "High Priority Violation (HPV)" assist the government in tracking resolution of violations through the enforcement process and do not necessarily represent a final adjudication by a judicial or administrative body. In such cases, these characterizations should be considered alleged violations. "Violation Identified" indicates a Federally Reportable Violation (FRV) that has been reported by a state/local delegated authority. The FRV policy is intended for delegated agency use and such classification of state/local reported violations does not apply to EPA alleged violations. EPA has different ways of tracking its compliance and enforcement work. "HPV" designations are made according to EPA guidance. The following criteria can trigger an HPV status for a violation at a Title-V major source or a non-Title-V major source: Failure to obtain a New Source Review (NSR) permit and/or install Best Available Control Technology or Lowest Available Emission Reductions for any new major stationary source or major modifications at a major stationary source; Exceedance of a major stationary source annual emission threshold, as defined in the NSR regulations, by a synthetic minor stationary source; Violation of the any emission limitation, emission standard, or operating parameter that has continued for at least seven days, but not necessarily continuous, according to Title I, Part C or D, of the Clean Air Act and implementing regulations, Standards of Performance for New Sources (NSPS) Part 60, or National Emission Standards for Hazardous Air Pollutants (NESHAP) Parts 61 and 63; Violations of federally enforceable work practices, testing requirements, monitoring requirements, recordkeeping or reporting that substantially interferes with enforcement or determination of a facility's compliance requirements. For more details on Enforcement and Compliance information, visit https://echo.epa.gov/help/reports/dfr-data-dictionary.
	No. of Quarters facility was in Noncompliance with Clean Air Act, Oct. 2020 - Sept. 2023.	The number of quarters (out of 12) the facility was considered in noncompliance (Violation Identified) or had a compliance status of "High Priority Violation" (HPV) under the Clean Air Act, as designated by EPA. Quarterly noncompliance designations should be considered alleged violations.
	No. of Quarters with Significant Violations (High Priority Violation) of Clean Air Act, Oct. 2020 - Sept. 2023.	The number of quarters (out of 12) where the facility was designated to have a compliance status of "High Priority Violation" (HPV) under the Clean Air Act, designated by EPA. Any HPV designation should be considered an alleged violation. HPV indicates the facility has allegedly been out of compliance in a way that may pose a more severe level of concern for the environment.
	No. of Clean Air Act Formal Enforcement Actions, October 2020 - September 2023	Number of Clean Air Act Formal Enforcement Actions brought between Oct. 2020 and Sept. 2023. Note: enforcement actions may address violations that occurred during an earlier time period.
	No. of Clean Air Act Penalties Issued, October 2020 - September 2023	Number of Clean Air Act penalties issued to a facility between Oct. 2020 and Sept. 2023, according to EPA's ECHO database. Note: penalties may correspond with enforcement actions brought during an earlier time period.
	Total Value of Clean Air Act Penalties ($), October 2020 - September 2023	Dollar value of total federal and state/local penalties assessed between Oct. 2020 and Sept. 2023 according to EPA's ECHO database. Note: penalties may correspond with enforcement actions brought during an earlier time period.
Accidents, Upsets, or Other "Emission Events"	No. of emission events reported	Number of accidents, upsets, or other emissions events reported at each facility between January 2018 and June 2023, according to state environmental agencies. Each state has different reporting requirements for unauthorized discharges of air pollution known. Because of this, event counts and event-related emissions should not be compared between facilities in different states or between states. For more information on data sources and caveats, please see the methods section in Appendix A of EIP's report "Feeding the Plastics Industrial Complex."

	Sum of emissions from emission events	Amount of air pollution (in pounds) released at each facility during company-reported accidents, upsets, or other emissions events. For more information on data sources and caveats, please see the methods section in Appendix A of EIP's report "Feeding the Plastics Industrial Complex."
Emissions	GHGs (short tons per year)	Greenhouse gases trap heat in the atmosphere and warm the planet. These include water vapor, carbon dioxide, methane, ozone, nitrous oxide, and chlorofluorocarbons. They are measured in tons of carbon dioxide equivalents (CO2e), meaning total greenhouse gas emissions weighted by each gas' global warming potential relative to the warming potential of the same amount of carbon dioxide over a 100-year time period. Emissions in this column were reported to EPA's Greenhouse Gas Reporting Program for the 2021 calendar year.
	PM2.5 (short tons per year)	Fine particulate matter, or PM2.5, refers to tiny inhalable particles with diameters equal to or less than 2.5 micrometers in size. The particles can consist of a wide variety of chemicals, including metals and organics. They can be released directly from smokestacks, flares, tailpipes, and fires. However, according to the U.S. EPA, most particles form as a result of chemical reactions between sulfur dioxide and nitrogen oxides in the atmosphere. Smaller particles can lodge deeper in the lungs and have been linked to heart and lung disease, premature death, asthma attacks, and more.
	NOx (short tons per year)	Nitrogen oxides include nitrogen dioxide, nitrous acid, and nitric acid. Nitrogen dioxide is used to indicate the presence of the other nitrogen oxides. Breathing high concentrations over a short period of time can trigger asthma attacks and aggravate other respiratory illnesses. Breathing high levels over longer periods of time may contribute to the development of asthma and make people more susceptible to respiratory infections. Nitrogen oxide emissions contribute to the formation of particulate matter and ozone. These pollutants can also harm the respiratory system and have been linked to other illnesses.
	VOCs (short tons per year)	Volatile organic compounds (VOCs) are a suite of organic chemical compounds that evaporate easily and don't readily dissolve in water. They are found in both indoor and outdoor air and can come from a number of solid and liquid sources, including household products and industrial direct emissions. Under certain conditions outdoors, VOCs contribute to the formation of smog.
	SO2 (short tons per year)	Sulfur dioxide (SO2) is a type of sulfur oxide (SOx). Short-term exposure to high concentrations can harm the human respiratory system and make it difficult to breathe. SO2 emissions can also contribute to the formation of particulate matter, another air pollutant that can cause breathing and health problems at high enough concentrations. Sulfur dioxide emissions are regulated under state and federal laws.
	CO (short tons per year)	Carbon monoxide is a colorless, odorless gas that reduces the amount of oxygen that can be transported in the blood stream. Carbon monoxide can be fatal at high concentrations.
	Benzene (pounds per year)	Benzene is a colorless, sweet-smelling, and highly flammable liquid that evaporates rapidly when exposed to air. It occurs naturally in petroleum and is commonly used in petrochemical manufacturing. Acute exposure can cause dizziness, headaches, and respiratory tract irritation, and it is a known human carcinogen.
	1,3-butadiene (pounds per year)	1,3-butadiene (in pounds per year) is a colorless gas used to produce synthetic rubber and other chemicals. Acute exposure can cause eye, ear, nose, and throat irritation and chronic exposure has been linked to increased risk of cardiovascular disease and leukemia.
	Vinyl Chloride (pounds per year)	Vinyl chloride (in pounds per year) is a colorless, highly flammable gas used to produce PVC plastic. Acute exposure can cause dizziness, headaches, and giddiness and chronic exposure is associated with an increased risk of liver disease and cancer.
	Chlorine (pounds per year)	Chlorine (in pounds per year) is a greenish-yellow gas with a strong odor. It is widely used as a disinfectant, to treat water, and to produce PVC plastic and other chemical products. It can irritate the eyes, upper respiratory tract, and lungs at low levels of exposure and may cause chest pain, vomiting, and pulmonary edema at high exposure levels.
	Potential to Emit	The total amount of a pollutant that could be emitted from an emission source operating at maximum design capacity, after accounting for reductions required by federally enforceable pollution controls. Potential air emissions from a proposed project reflect the potential net emission increases from the new project, as documented in the most recent permit documents. They do not reflect actual emissions but are the best estimate of potential emissions from a plant or expansion that is not yet operating.
Demographic Information (Within 3-Mile Radius)	Estimated Population within 3 miles	Estimate of the total population living within 3 miles of a facility. The facility location is based on a single point identified in government records or EPA's ECHO database. Where needed, coordinates were adjusted to represent the center of a facility. Demographic information for individual facilities came directly from EJSCREEN's Application Program Interface (API). EJSCREEN relies on census block group data from the U.S. Census Bureau's American Community Survey (ACS) five-year estimates covering 2017 through 2021.
	Percent People of Color	The percent of individuals living within 3 miles of a facility who self-identify as having a race other than white alone and/or list their ethnicity as Hispanic or Latino.
	Percent Low-Income	The percent of the population living within 3 miles of a facility that have household income below or equal to twice the federal poverty level.
	Percent People over 64 Years Old	The percent of the total population living within 3 miles of a facility who are over 64 years old.
	Percent under 5 Years Old	The percent of the total population living within 3 miles of a facility who are under 5 years old.
Subsidy Information	Subsidies Received Since 2013	The dollar value of state/local subsidies or tax breaks awarded to a facility since 2013.
	Subsidy Program	The government tax incentive program through which a company and/or facility receives subsidies or tax breaks.
	Subsidy Source	Subsidy program and data source for subsidy information.
	Years Funds Received	Timespan for which a government subsidy/tax break program provides funds for a given company/facility from 2013 onward.

Acronyms

EDC	ethylene dichloride
LAO	linear alpha olefins
MDI	methylene diphenyl diisocyanate
MEG	monoethylene glycol
MMA	methyl methacrylate
PET	polyethylene terephthalate
PTA	purified terephthalic acid

PVC	polyvinyl chloride
TDI	toluene diisocyanate
VAM	vinyl acetate monomer
VCM	vinyl chloride monomer