

VINELAND MUNICIPAL ELECTRIC UTILITY-GENERATION INSPECTION REPORT

Inspection Date(s):	24-25 March 2025	Inspection Announced: No
Facilities or Site Names:	<u>Vineland Municipal Electric Utility Generation Facilities</u> 1. Vineland City of Vineland Electric West Station 2. Vineland Municipal Electric Utility Main Warehouse 3. Vineland City Municipal Electric Utilities Clayville Generating Station 4. Vineland Municipal Electric Utility-Howard M Down Generating Station Vineland Municipal Electric Utility Butler Building (Warehouse)	
Facility/Site Physical Location:	1. Lubins Lane & New Peach Street (1185 New Peach St.) 2. 1740 East Oak Road 3. 4087 South Lincoln Ave 4. 211 North West Ave Butler Building, 217 North 2nd St. (between Plum St. and S Pear St.)	
(city, state, zip code)	Vineland, NJ 08360	
Mailing address (if different from above):	57 W. Park Ave., Suite A Vineland, NJ 08360	
Facility/Site Contacts:	Diane Amico Sr. Environmental Health Specialist Vineland Municipal Electric Utility DAmico@vinelandcity.org	57 W. Park Ave., Suite A Vineland, NJ 08362-1508 (856) 794-4000 x.4234 Fax: (856) 405-4625
Website:	https://utilities.vinelandcity.org/	
RCRA ID Number:	1. NJR000008144 2. NJR000096321 3. NJR000096313 4. NJD000558155	
Latitude, Longitude:	1. 39.49106359813286, -75.04818660121997 2. 39.49987702205031, -74.99243464602698 3. 39.42523303931974, -75.01903679947219 4. 39.489005503552896, -75.03438472607232	
Facility/Site Personnel Participating in Inspection:		
Diane Amico	Sr. Environmental Health Specialist	
Angel Cotto	Electrical Utility Repairman	West Station Plant
Steve August	Assistant Superintendent of Generation	(856) 794-4000 ext.4241 SAugust@vinelandcity.org
Bruce Chalow	General Operations Supervisor	
Inspector(s):		
Carl F. Plössl	US EPA, Enforcement Officer/Engineer	Plössl.Carl@epa.gov (212) 637-4088
Additional Inspection Report Elements:	VINELAND MUNICIPAL ELECTRIC UTILITY-Generation-March 2025 INSPECTION REPORT PHOTO ALBUM.pptx Safety Data Sheets Manifest Records	

RCRA Compliance Branch

VINELAND MUNICIPAL ELECTRIC UTILITY-GENERATION INSPECTION REPORT

Inspection Report Author:		
Carl F. Plössl	CARL PLOSSL	Digitally signed by CARL PLOSSL Date: 2025.05.19 15:55:04 -04'00'
Team Leader		
Leonard Grossman	Grossman, Lenny	Digitally signed by Grossman, Lenny Date: 2025.05.19 16:02:24 -04'00'

RCRA Compliance Branch

VINELAND MUNICIPAL ELECTRIC UTILITY-GENERATION INSPECTION REPORT

SECTION I – INTRODUCTION

Purpose of the Inspection Objective

A Compliance Evaluation Inspection (CEI) was conducted to determine the facilities' compliance with the Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste management.

Background

1. Vineland City of Vineland Electric West Station
2. Vineland Municipal Electric Utility Main Warehouse
3. Vineland City Municipal Electric Utilities Clayville Generating Station
4. Vineland Municipal Electric Utility-Howard M Down Generating Station & Vineland Municipal Electric Utility Butler Building (Warehouse)

1. Vineland City of Vineland Electric West Station

The facility has never been inspected for RCRA compliance and has had a notification history as a very small quantity generator, in 1995. A review of the facility's waste manifest records shows no activity. The facility will undergo full decommissioning shortly and, based on the previous Utility's facility decommissioning, *i.e.*, Howard M Down Generating Station, is likely to generate significant quantities of hazardous waste in that process. The facility has been regularly inspected under the Clean Air Act but not under the Clean Water Act.

Notification History:

Date	Source	Status
1/1/07	Implementer	-
1/1/06	Implementer	-
11/30/95	Notification	VSQG

Facility Name: Vineland City of Vineland Electric W Sta
County: Cumberland
FRS: 118022447518
Inspection Required?: no
Reason Required: N/A
Gen. Status calculated by EPA:
Generator Status in RCRAInfo: N
TSDF?: no
Most Recent RCRA Inspection: 3/25/2025
Last EPA Inspection: 3/25/2025
Last State Inspection:
Last Record Review:
Federal Facility?: no
Federal Agency Name:
Is the facility a LQG, but did not submit a Biennial Report?: no
LQG not inspected in the past 5 years?: no
Most recent activity (enf action or inspection) was an informal EA?: no
Hot Spot Class:
Flood Risk: none
RSEI Score: 0
NAICS:
CAA Permit Types: No Classification In ICIS
Last EPA formal EA?:
Last EPA informal EA:
Last state formal EA:
Last state informal EA:
Last CAA inspection: 1/26/2024
Last CWA inspection:
Last Notification: 1/1/2007
Financial Assurance Required?: no

2. Vineland Municipal Electric Utility Main Warehouse

The facility has never been inspected for RCRA compliance and has never notified as a generator.

3. Vineland City Municipal Electric Utilities Clayville Generating Station

The facility has never been inspected for RCRA compliance and has never notified as a generator.

4. Vineland Municipal Electric Utility-Howard M Down Generating Station & Vineland Municipal Electric Utility Butler Building (Warehouse)

Notification History:

Date	Source	Status
2/16/21	Notification	VSQG
1/1/07	Implementer	VSQG
1/1/06	Implementer	VSQG
3/29/01	Bi. Report	LQG
3/1/94	Bi. Report	LQG
2/26/92	Bi. Report	LQG
11/27/84	Notification	LQG

The facility, which includes an adjoining warehouse, the Distribution Butler Warehouse and the across-the-street 2nd St. Butler Building, was last inspected by the state for RCRA compliance in 2004 and has had a notification history ranging from large quantity generator (LQG) in 1984, to a very small quantity generator, in 2021. Biannual Reports in 1992, 1994, and 2001 were as an LQG. A review of

RCRA Compliance Branch

VINELAND MUNICIPAL ELECTRIC UTILITY-GENERATION INSPECTION REPORT

the facility's waste manifest records show some 16,000 lbs of hazardous waste manifested in 2023 when it underwent partial decommissioning. The facility has been regularly inspected under the Clean Air Act but and recently, 2024, under the Clean Water Act.

Opening Conference

24 March 2025. I, EPA Region 2 RCRA inspector Plössl, arrived in the parking area by the side entrance to the Vineland Municipal facility at ~2:30 pm for an unannounced reinspection of the municipality's electrical generation utility. I called Diane Amico, Sr. Environmental Health Specialist for the Vineland Municipal Electric Utility, and met her at the side entrance. I announced and identified myself. Ms. Amico was quite familiar the nature of federal and state compliance inspections including those conducted pursuant to RCRA federal and state hazardous waste regulations (partly because of last years' inspection of the distribution facility. We discussed the various generation facilities, past and current operations, waste management and disposal practices, and the nature of RCRA inspections.

Facility Name: Vineland Municipal Electric Utility
211 N West Ave, Vineland, NJ 08360
County: Cumberland
FRS: 110000603197
Inspection Required?: no
Reason Required: N/A
Gen. Status calculated by EPA: VSQG
Generator Status in RCRAInfo: VSQG
TSD?: no
Most Recent RCRA Inspection: 3/25/2025
Last EPA Inspection: 3/25/2025
Last State Inspection: 12/2/2004
Last Record Review:
Federal Facility?: no
Federal Agency Name:
Is the facility a LQG, but did not submit a Biennial Report?: no
LQG not inspected in the past 5 years?: no
Most recent activity (enf action or inspection) was an informal EA?: no
Hot Spot Class:
Flood Risk: none
RSEI Score: 1607700.9479883
NAICS: 221112 Fossil Fuel Electric Power Generation
CAA Permit Types: Major Emissions
Last EPA formal EA?:
Last EPA informal EA:
Last state formal EA:
Last state informal EA: 8/24/1993
Last CAA inspection: 9/12/2024
Last CWA inspection: 12/20/2024
Last Notification: 2/16/2021
Financial Assurance Required?: no

Because of the lateness of the day, we agreed that it would be best to start the walk-thru of the four or so facilities at other physical locations tomorrow early to ensure availability of key personnel. However, while the Electric Utility only maintained office space at this location, the City of Vineland did house their Vehicle Maintenance facility. Ms. Amico agreed to conduct me on, or rather delivery me to an inspection of the Vehicle Maintenance facility. (see *VINELAND MUNICIPAL VEHICLE MAINTENANCE DEPARTMENT INSPECTION REPORT*)

25 March 2025. I, EPA Region 2 RCRA inspector Plössl, arrived in the parking area of the Vineland Municipal offices at ~8 am to resume my inspection of the municipal electrical generation utility. After some preliminary planning with Ms. Amico, we set out to visit four of the Vineland Municipal Electric Utility facilities.

Facility/Site Description

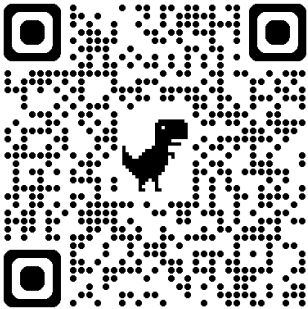
<https://utilities.vinelandcity.org/>

<https://utilities.vinelandcity.org/distribution/>

VINELAND MUNICIPAL ELECTRIC UTILITY-GENERATION INSPECTION REPORT



[HOME](#) [ABOUT US](#) [CUSTOMER SERVICE](#) [UTILITY TIPS](#) [OUTAGES](#)



From Clean Energy Authority:

- <https://www.cleanenergyauthority.com/electric-utility/vineland-municipal-electric-utility>

Vineland Municipal Electric Utility is the only municipally-owned electric generating utility in the State of New Jersey. VMEU has been providing electric service to the residents of the City of Vineland since 1899.

The Electric Utility's generating capacity is 132,900 kW Summer/143,400 kW Winter. Additionally, the Electric Utility maintains an interconnection with Atlantic City Electric, and membership in the Pennsylvania-New Jersey-Maryland (PJM) Interconnection which includes the major investor-owned electric utilities throughout the Mid-Atlantic and Midwest Regions. VMEU also receives a monthly allocation of 4,300 kW of PASNY Hydro Power. Thus, the Electric Utility is able to meet the demands of its users even in times of emergency.

Google Maps shows the inspected facility as at:

RCRA Compliance Branch

VINELAND MUNICIPAL ELECTRIC UTILITY-GENERATION INSPECTION REPORT



According to Ms. Amico, *et. al.*:

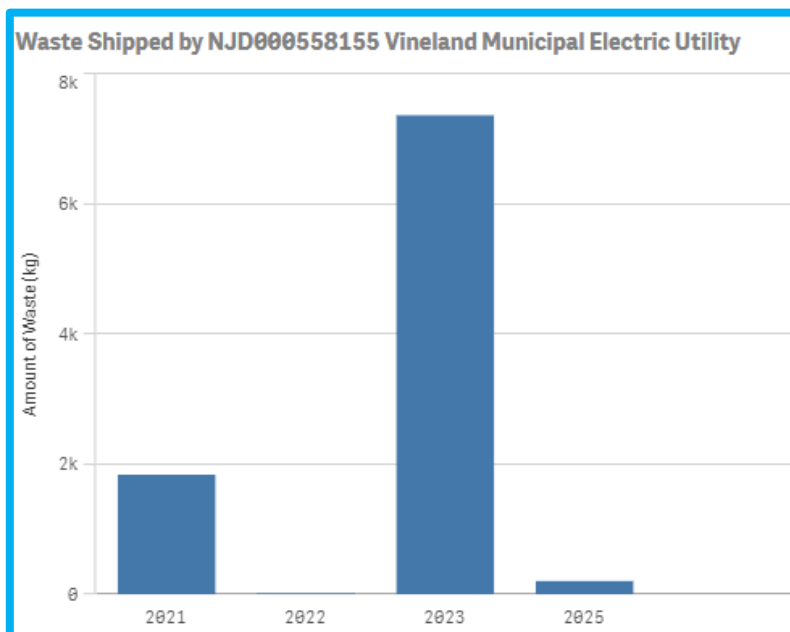
- General
 - The electric utility has been operating since the 19th century, with the Howard M Down Generating Station being the location for the original Unit 1 (up to Unit 11 now).
 - Clayville is the newest, with two natural gas-fired units.
 - The West Generating Station, built in the 1970's, awaits full decommissioning. It was last operated as an oil-fired plant.
 - The Oak Road Maintenance Warehouse also serves as the central check-in facility for the generation side of the Utility and accumulates/stores used oil from the power plants prior to disposal.
 - The Howard M Down Generating Station is co-located with an adjoining warehouse, the Distribution Butler Warehouse, and the across-the-street warehouse, the 2nd St. Butler Building.
 - The Distribution Butler Warehouse is in the process of being transferred from the Distribution side of the Utility to Generation.
 - The 2nd St. Butler Building is in the process of being transferred from the Generation side of the Utility to Distribution.
 - Both were still used by Generation for material and waste storage.

RCRA Compliance Branch

VINELAND MUNICIPAL ELECTRIC UTILITY-GENERATION INSPECTION REPORT

- Hazardous waste generation
 - The generation side of the Vineland Municipal Electric Utility only generates significant quantities of hazardous waste during periodic decommissioning operations. The latest, mostly in 2023, generated some 16,000-lbs of waste at the Howard M Down Generating Station. See manifest record below.
 - No Biannual Report was filed for 2023, or any other year.
- Other hazardous waste generation
 - Spent fluorescent lamps (limited as most have been replaced by LED)
 - Spent high intensity lamps (limited as most have been replaced by LED)
 - Old paints and spent cleaning and painting solvents
 - Spent aerosol cans
 - Spent lead acid, NiCd, and lithium batteries
 - E-wastes
- Other regular, potentially hazardous wastestreams
 - Parts washers (no available haz waste determination)
 - Likely contains the solvent associated with the CRC SmartWasher® Parts Washer Bioremediating Parts Washing System (see SDS attachment)
- Other regulated wastes
 - Used oil (see Photo Album)
 - Republic Services is the contract transport and disposal company
 - Scrap metal
 - Giordano's Recycling <https://www.giordanosrecycling.com/>
- Waste dispositions
 - Universal waste disposal records were available
 - Used oil waste disposal records were available

Howard M Down Generating Station Manifest Records:



Manifest Date	Waste Qty	Units	Waste (kg)	Waste Codes	TSDF ID	MTN*
1/15/2025	55	gallons	208	D002	NJD002200046	023587314JJJ
12/15/2023	9,200	Pounds	4,173	D001 D008 D018 D039	OHD066060609	024947263JJJ
9/11/2023	20	Pounds	9	D001 D002	OHD066060609	024947230JJJ
9/11/2023	250	Pounds	113	D001 D007	OHD066060609	024947230JJJ
9/11/2023	110	Pounds	50	D002	OHD066060609	024947230JJJ

RCRA Compliance Branch

VINELAND MUNICIPAL ELECTRIC UTILITY-GENERATION INSPECTION REPORT

				D005 D011 D040 U226		
9/11/2023	40	Pounds	18	U228	OHD066060609	024947230JJJ
9/11/2023	2,000	Pounds	907	D007	OHD066060609	024947230JJJ
8/28/2023	800	Pounds	363	D001	OHD066060609	024947175JJJ
8/28/2023	10	Pounds	5	D001 D003	OHD066060609	024947175JJJ
8/28/2023	10	Pounds	5	D001 D007	OHD066060609	024947175JJJ
8/28/2023	305	Pounds	138	D002	OHD066060609	024947175JJJ
8/28/2023	2	Pounds	1	D003 P098	OHD066060609	024947175JJJ
5/30/2023	453	Pounds	205	D002 D008	PAD987367216	025305017JJJ
5/10/2023	140	Pounds	64	D018	NJD002200046	025123346JJJ
5/10/2023	800	Pounds	363	D018	NJD002200046	025123347JJJ
4/24/2023	2,102	Pounds	953	D002 D008	PAD987367216	025307657JJJ
7/20/2022	40	Pounds	18	D009 U151	NJD002200046	023587610JJJ
4/28/2021	570	Pounds	259	D001	NJD002200046	022254871JJJ
4/28/2021	630	Pounds	286	D001 D002	NJD002200046	022254871JJJ
4/28/2021	2,620	Pounds	1,188	D002	NJD002200046	022254871JJJ
4/28/2021	240	Pounds	109	D040	NJD002200046	022254871JJJ

SECTION II – OBSERVATIONS

The accompanying *VINELAND MUNICIPAL ELECTRIC UTILITY-Generation-March 2025 INSPECTION REPORT PHOTO ALBUM.pptx* document is the complete set of inspection observations made during the multiple facility walkthroughs with Ms. Amico, *et alia*.

SECTION III – AREAS OF CONCERN

1. Emergency Provisions
 - a. The posting of hazard identification signage for buildings was inconsistent at both the Clayville and Howard M Down Generating Stations. Some examples are noted in the inspection photo album.¹
 - b. It was unclear whether the Clayville Generation Plant’s exact location was properly addressed in all emergency plans and street signage.
2. Used Oil
 - a. 40 CFR §279.22(c)(1) requires that containers and above ground storage tanks (ASTs) be labeled “Used Oil.”
 - i. Used oil containers were not labeled as “Used Oil” at both the Clayville and Howard M Down Generating Stations. Some examples are noted in the inspection photo album.
3. Lead Acid Batteries

¹ 2015 New Jersey Fire Code (International Fire Code 2015 (IFC 2015))--Chapter 50 Hazardous Materials--General Provisions--Section 5003 General Requirements--5003.5 Hazard identification signs. Unless otherwise exempted by the fire code official, visible hazard identification signs as specified in NFPA 704 for the specific material contained shall be placed on stationary containers and aboveground tanks and at entrances to locations where hazardous materials are stored, dispensed, used or handled in quantities requiring a permit and at specific entrances and locations designated by the fire code official.

RCRA Compliance Branch

VINELAND MUNICIPAL ELECTRIC UTILITY-GENERATION INSPECTION REPORT

- a. Vineland has not yet determined whether the likely spent lead acid batteries in the West Generation Station turbine battery bank are a waste or have a continuing utility (see Slide 9 of the inspection photo album).

Closing Conference

Ms. Amico and I reviewed my findings and we discussed possible follow up.

INSPECTION PHOTOGRAPHS: See *VINELAND MUNICIPAL ELECTRIC UTILITY-Generation-March 2025 INSPECTION REPORT PHOTO ALBUM.pptx*

APPENDIX 1: Universal Waste Regulations

APPENDIX 2: How Gas Turbine Power Plants Work

RCRA Compliance Branch

VINELAND MUNICIPAL ELECTRIC UTILITY-GENERATION INSPECTION REPORT

Appendix 1: Certain, Applicable Universal Waste Regulations

Title 40 Chapter I Subchapter I Part 273

Small quantity handler of universal means a universal waste handler who does not accumulate 5,000 kilograms or more of universal waste (batteries, pesticides, mercury-containing equipment, lamps, or aerosol cans, calculated collectively) at any time.

A small quantity handler of universal waste is:

- (a) Prohibited from disposing of universal waste; and
- (b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in 40 CFR 273.17; or by managing specific wastes as provided in 40 CFR 273.13.

Lamps. A small quantity handler of universal waste must manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

- (1) A small quantity handler of universal waste must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.
- (2) A small quantity handler of universal waste must immediately clean up and place in a container any lamp that is broken and must place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers must be closed, structurally sound, compatible with the contents of the lamps and must lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.

A small quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:

- (a) Universal waste batteries (i.e., each battery), or a container in which the batteries are contained, must be labeled or marked clearly with any one of the following phrases: "Universal Waste — Battery(ies)," or "Waste Battery(ies)," or "Used Battery(ies);"
- (e) Each lamp or a container or package in which such lamps are contained must be labeled or marked clearly with one of the following phrases: "Universal Waste—Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s)".

A small quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of paragraph (b) of this section are met.

A small quantity handler of universal waste who accumulates universal waste must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:

RCRA Compliance Branch

VINELAND MUNICIPAL ELECTRIC UTILITY-GENERATION INSPECTION REPORT

- (1) Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;
- (2) Marking or labeling each individual item of universal waste (*e.g.*, each battery or thermostat) with the date it became a waste or was received;
- (3) Maintaining an inventory system on-site that identifies the date each universal waste became a waste or was received;
- (4) Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;
- (5) Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or
- (6) Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

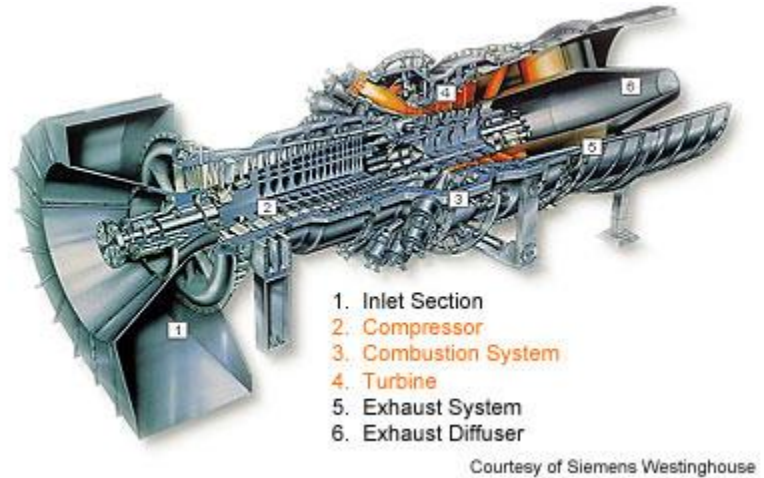
A small quantity handler of universal waste must inform all employees who handle or have responsibility for managing universal waste. The information must describe proper handling and emergency procedures appropriate to the type(s) of universal waste handled at the facility.

VINELAND MUNICIPAL ELECTRIC UTILITY-GENERATION INSPECTION REPORT

Appendix 2: How Gas Turbine Power Plants Work

<https://www.energy.gov/fecm/how-gas-turbine-power-plants-work>

The combustion (gas) turbines being installed in many of today's natural-gas-fueled power plants are complex machines, but they basically involve three main sections:



The compressor, which draws air into the engine, pressurizes it, and feeds it to the combustion chamber at speeds of hundreds of miles per hour.

The combustion system, typically made up of a ring of fuel injectors that inject a steady stream of fuel into combustion chambers

where it mixes with the air. The mixture is burned at temperatures of more than 2000 degrees F. The combustion produces a high temperature, high pressure gas stream that enters and expands through the turbine section.

The turbine is an intricate array of alternate stationary and rotating aerofoil-section blades. As hot combustion gas expands through the turbine, it spins the rotating blades. The rotating blades perform a dual function: they drive the compressor to draw more pressurized air into the combustion section, and they spin a generator to produce electricity.

Land based gas turbines are of two types: (1) heavy frame engines and (2) aeroderivative engines. Heavy frame engines are characterized by lower pressure ratios (typically below 20) and tend to be physically large. Pressure ratio is the ratio of the compressor discharge pressure and the inlet air pressure. Aeroderivative engines are derived from jet engines, as the name implies, and operate at very high compression ratios (typically in excess of 30). Aeroderivative engines tend to be very compact and are useful where smaller power outputs are needed. As large frame turbines have higher power outputs, they can produce larger amounts of emissions, and must be designed to achieve low emissions of pollutants, such as NOx.

One key to a turbine's fuel-to-power efficiency is the temperature at which it operates. Higher temperatures generally mean higher efficiencies, which in turn, can lead to more economical operation. Gas flowing through a typical power plant turbine can be as hot as 2300 degrees F, but some of the critical metals in the turbine can withstand temperatures only as hot as 1500 to 1700 degrees F. Therefore, air from the compressor might be used for cooling key turbine components, reducing ultimate thermal efficiency.

Also see: https://en.wikipedia.org/wiki/Gas-fired_power_plant

Gas-fired power plant

A gas-fired power plant, sometimes referred to as gas-fired power station, natural gas power plant, or methane gas power plant, is a thermal power station that burns natural gas to generate electricity. Gas-fired power plants generate almost a quarter of world electricity and are significant sources of greenhouse gas emissions.[1] However, they can provide seasonal, dispatchable energy generation to compensate for variable renewable energy deficits, where



WIKIPEDIA
The Free Encyclopedia

RCRA Compliance Branch

VINELAND MUNICIPAL ELECTRIC UTILITY-GENERATION INSPECTION REPORT

hydropower or interconnectors are not available. In the early 2020s batteries became competitive with gas peaker plants.