

## Neil Simpson I

Built in 1969 and taken off line Wednesday, the 22-megawatt plant — enough to power almost 18,000 average homes in the region — was originally known as Unit V and was renamed in 1970 for the president of Black Hills Power and Light. The company still owns the facility.

It was the fourth plant built at the Wyodak complex and, at the time, by far the biggest. It was also the first air-cooled coal plant in the United States, allowing it to be located at the mouth of the Wyodak mine, where there isn't enough water to run a water-cooled plant its size.

The gas turbines that will replace Neil Simpson I's generating capacity will be near Cheyenne and provide power to the Cheyenne Light Fuel and Power service area, as well as the Black Hills Power area Neil Simpson I served.

Coal silos serving Neil Simpson I are adjacent to the plant.

## Wyodak

Built in 1978 and by far the biggest plant at the complex, Wyodak also will take the title of the oldest plant at the complex once Neil Simpson is dismantled. It produces 335 megawatts, enough to power almost 314,000 homes and three times more than the second biggest plant at the complex. Wyodak is the only plant at the complex that is not operated by Black Hills. PacifiCorp owns 80 percent of its power and Black Hills owns 20 percent.

The biggest plant near Gillette is the Dry Fork Station with 385 megawatts. It is operated by Basin Electric Power Cooperative at the mouth of the Dry Fork mine north of town.

## Wyodak silos

## Gillette

## I-90

## Wygen II

This 95-megawatt plant was built in 2008, and is owned completely by Black Hills Corp. Its power goes to the Cheyenne Light Fuel and Power service area in Cheyenne and can power almost 80,000 average Wyoming homes.

Between 2003 and 2010, Hirschfeld Industries fabricated the three Wygen units, which are the newest at the complex, out of a total of more than 6,000 tons of steel.

## Neil Simpson II

Finished in 1995, it is the first plant Black Hills built on the site after it built Neil Simpson I in 1969. It produces 90 megawatts for the company, which is enough to power more than 73,000 average homes in the region.

Its power goes to the Black Hills Power service area, which covers southeast Montana, northern Wyoming and western South Dakota.

## Wygen I

At 85 megawatts, this plant will be the smallest coal-fired plant at the complex once Neil Simpson I is dismantled. It was built in 2003. The Municipal Energy Association of Nebraska owns 23.5 percent of the plant. Black Hills owns the rest. The plant's power goes to Black Hills Power service area and to the Nebraska co-op's area, which covers Wyoming, Colorado, Nebraska and runs as far east as Iowa. It makes enough to power about 70,000 average homes in its service areas.

## Neil Simpson CTI and CTII

These two 40-megawatt gas turbine generators were built in 2000 and are the only non-coal plants at the complex. They are owned by Black Hills Corp., but the city of Gillette is in the process of buying CTII, or Combustion Turbine II. They are made by a company that makes jet engines, and are broadly similar to a jet engine mounted to the ground and attached to a generator. Combined, these two turbines can power almost 65,200 average homes in the region. CTI covers the Black Hills Power service area, and CTII will soon power Gillette.

# Wyodak Neil Simpson Complex

## Wygen III

Completed in 2010, this is the newest plant at the complex and can power close to 90,000 homes. The city of Gillette owns 23 percent of its 110-megawatt capacity. Black Hills owns 52 percent, and the Municipal Energy Association of Nebraska owns the remaining 25 percent. Between the 25 megawatts it gets from Wygen III and the 40 megawatts it will get from the gas plant, Gillette will be able to cover the majority of its power needs with energy it generates.

## Highway 51