

Grand Coulee Dam Statistics and Facts



How much electricity does Grand Coulee Dam produce annually?

Grand Coulee Dam is the largest hydropower producer in the United States, generating more than 21 billion kilowatt-hours of electricity each year. That's enough power to supply 2.3 million households with electricity for one year. Power from Grand Coulee Dam is supplied to eleven western states (WA, OR, ID, MT, WY, CO, CA, NV, NM, UT, AZ) and Canada.

How big is Grand Coulee Dam?

Grand Coulee Dam is one of the largest concrete structures in the world. It contains nearly 12 million cubic yards of concrete.

What could you build with 12 million cubic yards of concrete?

You could build a sidewalk four feet wide and four inches thick and wrap it twice around the equator (50,000 miles). You could build a highway from Seattle, Washington to Miami, Florida. You could build the Grand Coulee Dam, one of the modern wonders of the world.

What are the holes in the face of the dam?

Those little holes are 8.5 feet in diameter—you could fit a standard-size truck in one of them. They are used to discharge water through the dam when the elevation of the water in the lake is lower than the drum gates at the top of the spillway.

For more information

For more information call the visitor center at (509) 633-9265 or visit <http://www.usbr.gov/pn/grandcoulee/>.

| | Grand Coulee Dam | Hoover Dam |
|----------------------------------|--|-----------------------|
| Type of Dam | Gravity Dam | Gravity-Arch Dam |
| Operating Agency | Bureau of Reclamation | Bureau of Reclamation |
| Total Generating Capacity | 6,809 megawatts | 2,078 megawatts |
| Location | Washington State | Nevada/Arizona |
| Dates of Construction | 1933-1941 1967-1974 Third Powerplant | 1931-1936 |
| Height of Dam | 550 feet | 726 feet |
| Length of Dam | 5,223 feet | 1,244 feet |
| Concrete | 11,975,521 cubic yards | 3,250,000 cubic yards |
| Purposes and Benefits | Purposes and benefits of both dams include flood control and river regulation, water storage and delivery (including irrigation), power generation, recreation, and fish and wildlife. | |

| GRAND COULEE DAM | ENGLISH UNITS | METRIC UNITS |
|--|-----------------------------|-----------------------------|
| Total Length of Dam (axis) | 5,223 feet | 1,592 meters |
| Length of Main Dam | 3,867 feet | 1,178 meters |
| Length of Forebay Dam | 1,170 feet | 356 meters |
| Length of Wing Dam | 186 feet | 56 meters |
| Height Above Bedrock | 550 feet | 167 meters |
| Height Above Original Streambed | 401 feet | 122 meters |
| Spillway Width | 1,650 feet | 503 meters |
| Total Concrete Content | 11,975,521 cubic yards | 9,155,944 cubic meters |
| Original Dam, Power and Pumping Plants | 10,585,000 cubic yards | 8,092,815 cubic meters |
| 260 feet (79.2 meters) of Dam Removed | 30,942 cubic yards | 23,657 cubic meters |
| Forebay Dam and Wing Dam | 663,939 cubic yards | 507,618 cubic meters |
| Third Powerplant and Miscellaneous | 757,524 cubic yards | 579,169 cubic meters |
| Total Excavation, Common | 38,574,503 cubic yards | 29,492,329 cubic meters |
| Total Excavation, Rock | 7,062,629 cubic yards | 5,399,768 cubic meters |
| Maximum Concrete Pour, 1 month | 536,364 cubic yards | 410,080 cubic meters |
| LEFT POWERPLANT | | |
| Main Unit Turbines G-1 through G-6 | 150,000 horsepower | 111,855 kilowatts |
| Main Unit Turbines G-7 through G-9 | 165,000 horsepower | 123,040 kilowatts |
| Main Unit Generators | 125 megawatts | 125 megawatts |
| Station Service Turbines | 14,000 horsepower | 10,440 kilowatts |
| Station Service Generators | 10 megawatts | 10 megawatts |
| RIGHT POWERPLANT | | |
| Main Unit Turbines (9) | 165,000 horsepower | 23,040 kilowatts |
| Main Unit Generators (9) | 125 megawatts | 125 megawatts |
| THIRD POWERPLANT | | |
| Main Unit Turbines G19 - G21 (3) | 820,000 horsepower | 611,753 kilowatts |
| Main Unit Generators G19 - G21 (3) | 600 megawatts | 600 megawatts |
| Main Unit Turbines G22 - G24 (3) | 1,053,900 horsepower | 786,209 kilowatts |
| Main Unit Generators G22 - G24 (3) | 805 megawatts | 805 megawatts |
| PUMP-GENERATING PLANT | | |
| Pump to Lift to Feeder Canal | 280 feet | 85 meters |
| Pumps (6) | 65,000 horsepower | 48,470 kilowatts |
| Pumping Capacity | 1,605 cubic feet per second | 45 cubic meters per second |
| Pump-Generators (2) | 67,500 horsepower | 50,335 kilowatts |
| Pump-Generators (4) | 70,000 horsepower | 52,199 kilowatts |
| Pumping Capacity | 1,948 cubic feet per second | 55 cubic meters per second |
| Generating Capacity (2) | 50 megawatts | 50 megawatts |
| Generating Capacity (4) | 53.5 megawatts | 53.5 megawatts |
| GENERATING CAPACITY | | |
| Pumping-Generating Plant | 314 megawatts | 314 megawatts |
| Left Powerplant | 1,155 megawatts | 1,155 megawatts |
| Right Powerplant | 1,125 megawatts | 1,125 megawatts |
| Third Powerplant | 4,215 megawatts | 4,215 megawatts |
| Total Generating Capacity | 6,809 megawatts | 6,809 megawatts |
| FRANKLIN D. ROOSEVELT LAKE | | |
| Area | 82,300 acres | 33,306 hectares |
| Length | 151 miles | 243 kilometers |
| Length of Shoreline | 600 miles | 965 kilometers |
| Total Capacity | 9,386,000 acre-feet | 11,577,460,550 cubic meters |
| Active Capacity & Joint Use Capacity | 5,185,000 acre-feet | 6,395,603,340 cubic meters |
| Maximum Elevation Above Sea Level | 1,290 feet | 393 meters |