

About the Gallery

It is commonplace to observe that the efficient production and distribution of electricity is one of the great innovations in modern world history. It is also a fact that many thousands of conventional electric power plants and their accompanying transmission and distribution systems are not only in place, but mostly unremarked as well, blended into the massive and complex logistical apparatus underpinning human society.

It would seem to follow that there is widespread public appreciation of the facilities used to generate electric power, but this is hardly the case. In fact, quite the opposite is true – most people think very little about power plants, and much of what is thought is at least vaguely negative.

The ***Power Plants Around the World*** gallery is designed to portray the tremendous scope and complexity of the global fleet of electric power plants, which now range in size from the 18,460-MW Three Gorges hydropower plant in China to hundreds of thousands of solar photovoltaic installations sized in the kilowatts. The accompanying text includes basic geographic information, a listing of main equipment and service suppliers, and, in most cases, additional details that may be of interest to visitors. Each photo is credited and the posting date indicated.

The Photographs

In the early 1980s, a power plant photograph collection was started to support the publishing efforts of Utility Data Institute now Platts UDI, a prominent directory and data base publishing company owned by McGraw Hill Financial. Power plant photographs were used on UDI publications and for display and promotional purposes. Over the next 10-15 years, the collection gradually grew even as UDI used fewer and fewer plant photos. Eventually, UDI stopped publishing plant photos altogether.

In 1998, the first ***Power Plant Trading Cards*** were published by ***industcards***, and the photo collection began to expand rapidly to support the new venture. An ***industcards*** website was created and, in late 2000, the ***Power Plants Around the World*** gallery was launched. The gallery gradually expanded to its current size and the collection of plant photographs continues unabated.

The Collection Philosophy

So, what is it about electric power plants that spurred sufficient interest to build this image and data bank? Basically, the answer is that the builders, suppliers, and operators of these facilities get insufficient credit for their efforts. Large power plants are engineering marvels and many have run well for over 100,000 hours – something like putting 5.5 million miles on your automobile. Construction of large power plants takes a minimum of two years and usually longer (it can take decades to license, design, and construct large hydroelectric power plants.) Hundreds of thousands of manhours are expended on design and construction. Great quantities of construction material are required, including thousands of tons of cement and rebar, motors and pumps, valves, piping and ductwork, cables and wires, specialized electrical apparatus, instrumentation

and control systems, other computer hardware and software, cladding, stairs and rails, scaffolding, lumber for formwork, bricks and masonry, fasteners, paint and coatings – literally thousands of items.

Large thermal, nuclear, and hydroelectric facilities are what most people think of when they think of power plants. In recent years, however, equal attention has been given to the design, construction, and deployment of smaller power plants, often termed distributed generation. These include minihydroelectric plants, small gas turbines and reciprocating engines, wind turbines, solar electric systems, and fuel cells. As did their giant cousins before them, these machines have rapidly increased in output and engineering sophistication.

The labor and material investment required to build power plants is roughly proportional to the electric output irrespective of technology. Once operational, big conventional and hydroelectric power plants are at once the largest and most important industrial or commercial facility in their immediate vicinity. The plant operators pay the bulk of local property taxes, plant staff are highly skilled and well compensated, and portions of the often very large plant sites are frequently protected and left to return to their natural state. In regular operation, power plants require continuous maintenance while thermal and nuclear plants consume fuel in substantial quantities. This in turn requires mining or drilling, fuel processing and transport, all of which employs more people, pays more taxes, etc. After the electric power is produced, it is distributed to end users.

Virtually no one disputes the great value and versatility of electric energy. In fact, it is not an exaggeration to say electric power is the most important “man-made” public good. Nonetheless, the combustion of fossil fuels results in solid and gaseous byproducts which are a cause of increasing anxiety for the general public, and not without good reason. The use of nuclear fuel for power generation also results in the creation of noxious waste products. On the other hand, the benefits of electricity are little remarked, as are the thousands of electric power plants around the world. Greater knowledge and understanding of these matters is desirable.

[Acknowledgments](#)

These photographs have been collected from thousands of companies and individuals in well over half the countries and territories around the world. The images are used with permission, and/or have been secured from increasingly common web galleries maintained by power companies and their suppliers (a hopeful sign of these firm’s greater willingness to promote their own work!) or from online photo collections posted by the general public. Contributors are listed elsewhere on the site and they have my sincere thanks.

Your questions and comments are welcome. I hope that you enjoy the gallery.

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