TOWARD AN ELECTRIFIED AMERICA

ELECTRIC HOME AND FARM AUTHORITY • AN AGENCY OF THE GOVERNMENT OF THE UNITED STATES

TVA
ELECTRICITY FOR ALL
"The continued idleness of a great national investment in the Tennessee Valley leads me to ask the Congress for legislation necessary to enliven this project in the service of the people.

"Many hard lessons have taught us the human waste that results from lack of planning. Here and there a few wise cities and counties have looked ahead and planned. But our nation has 'just grown.'

"It is time to extend planning to a wider field, in this instance comprehending all the great project many states directly concerned with the basis of one of our greatest rivers.

"This, in a true sense, is a return to the spirit and vision of the pioneer."

—President Roosevelt’s Message to Congress asking legislation for the Tennessee Valley Authority.

**AN ACT**

To improve the navigability and to provide for the flood control of the Tennessee River, to provide for irrigation and for the agricultural and industrial development of said valley; to provide for the national defense by the creation of a Corporation for the operation of Government enterprises; and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the means and funds of the United States in the vicinity of Norris Dam, Alabama, are retained in the interest of the national defense, and that the Corporation in the Tennessee Valley and -Norris-River Basin shall there be hereby created a body corporate

President Roosevelt—

May 15, 1933—

**In the rise and flow of rivers lies man’s opportunity to live in comfort**

In this air photograph, the Clinch River, a headwater tributary of the great Tennessee, is seen winding down from the distant highlands.

The sources of the Clinch are in the Cumberland and Blue Ridge mountains. In spring and fall when rains are heavy, water from the Clinch flows down this narrow valley upon the southern lowlands.

Look at the section of the photo included in the circle. This marks the site of Norris Dam ... the first great dam to be begun by the Tennessee Valley Authority. This dam will be 233 feet high, and will stretch 1,800 feet from slope to slope of the valley.

When Norris Dam is completed, its storage lake will extend up the valley as far as you can see beyond the circled area. This lake will have a shore line of 800 miles. In some places it will be 200 feet deep.

It will withhold “high water” flow and prevent floods which have repeatedly menaced lives and homes in the lowlands. In dry seasons it will allow flow to downstream power houses and make possible manufacture of the cheap electricity which will bring ease and comfort to the people of the valley.
Here is how man is using the opportunity for cheap power which Nature gave him.

Wilson Dam at Muscle Shoals, Alabama, stood practically idle for eight years. In the summer of 1933 the Tennessee Valley Authority took it in charge as the first working unit in a plan which eventually will coordinate all the power resources of the Tennessee River. This great dam is nine-tenths of a mile long, 117 feet high, and 101 feet wide at its base. Through each of its 18 spillways, 10,000 cubic feet of water per second may pass. The powerhouse (lower right, above) houses nine turbines capable of generating 181,000 horsepower. The turbine installation is today only half completed. There is space for additional generators which when installed will raise Wilson Dam's capacity to 613,000 horsepower.

Today, Wilson Dam is building its own future. It furnishes current not alone for a number of valley cities at very low rates, but most of the power as well to build Norris and Wheeler Dams. When the new dams are finished with their supporting reservoirs, ample water will be available to turn additional generators at Wilson and to more than double its present capacity for serving the Valley people.

Through these lines cheap power is fed from Wilson Dam to homes, farms, and industries of the Tennessee Valley.

ON THE CLINCH RIVER, four hundred miles up-stream from Wilson Dam, is the site of Norris Dam—now under construction by the Tennessee Valley Authority. Primarily a storage dam to provide a year-around water supply for farms down-stream, Norris Dam nevertheless will generate 130,000 horse-power. While serving people many hundreds of miles away, this great dam at the same time will make cheap power available to the people of the neighborhood. It will be a major factor in the control of floods.

The site of the General Joe Wheeler Dam, also under construction at the present time by TVA, is 15 miles up-stream from Wilson Dam. Wheeler Dam will be 6,480 feet long, 20 feet high. It will provide a storage lake 80 miles long and a potential generating capacity of 315,000 horsepower.

Electric power is being used wherever possible to build both the Wheeler and Norris Dams. Here is a view of the dipper of a great electric shovel at work on Norris Dam. Thus Man, in his drive for more and cheaper electricity, is harnessing the Tennessee River with its own power.

One million cubic yards of concrete will be required to build Norris Dam. Here is one of the electrically operated machines which will assist in placing this vast quantity of concrete in position. Norris Dam, it is expected, will be completed in 1936.
In shop and home the power of moving water is made the servant of man.

Here is how cheap electricity serves a typical Norris home. Note more wires than usual; electricity is used abundantly in Norris homes to save time and labor in household tasks.

Today, the main industry of Norris is dam building. This photo of a huge baking oven shows how cheap electricity grows daily comfort to the 3,500 men engaged in the work. After Norris Dam is completed, many of the workers will stay on in the attractive homes of the town of Norris. Cheap electricity will not alone make home life comfortable, but will help to provide a permanent livelihood. Electrically operated tool industries and small farming plots for each family will assure every household a secure, comfortable life.

A view of the town shop at Norris. Here, when the dam is finished, the people of Norris will make their living, with the aid of cheap electricity. Under one roof, half-a-dozen electrically operated industries will go forward. Norris people will be part-time farmers as well, for on the edge of the town each family will maintain 4 to 5 acres garden plots, while a dairy and a poultry farm will supply fresh milk and eggs. Norris will be a healthy town for children, and it is planned to make their lives钠. View of an electrical home in Norris, Tennessee. Such a home will cost for about $30 a month. Norris will have 200 to 300 such homes, some will be larger and next to a little room. Many will be heated by electricity. All will utilize cheap electricity from the Tennessee River for lights, cooking, refrigeration, and many other household uses.
"Generating and distributing electric power is a public business"—power policy of the Tennessee Valley Authority

This map shows why the business of producing and distributing electricity is a public business.

Lake any other river, the Tennessee has two periods of high water, in the fall and spring. These fall and spring flows often begin so quickly that the main channel of the Tennessee (and the Mississippi beyond) is unable to discharge the water. The result is pictured in the inset in the lower center of the map. Floods on American rivers take a huge annual toll in human lives and millions of dollars of property damage. In terms of wasted lives, flood losses are beyond calculation.

But "low water" or flood, the moving water of a river is power and needs only control of dams and storage reservoirs to be transformed into electricity into our greatest natural resource. A single reservoir cannot prevent floods nor a single dam produce the cheapest electricity. Many dams and reservoirs are needed. In times of high water the reservoirs are fattened. As the rains cease, the water is released and, dam by dam, emptied down the valley. With each step the water is transformed into electricity and, with each step, electricity is cheaper. Perfect river control allows no floods and not a single gallon to reach the sea without passing through turbines.

On the Tennessee, generators are now turning in one great publicly controlled dam—Wilson Dam at Muscle Shoals. Fifteen miles up-stream Wheeler Dam is under construction, and four hundred miles farther up, the valley Norris Dam is under way. In the future, low water will not decrease the supply of electricity at Wilson Dam as it does today. Summer and winter, the reservoirs behind Wheeler and Norris Dams will feed water in even flow through their own generators to generators at Wilson. Before long, still other dams at Auer, near the mouth of the Tennessee, at Pickwick Landing, and on the Hiwassee, may assist in the task. In the Tennessee Valley, floods will be permanently controlled.

"Electricity for all" includes industry in its meaning. Manufacturing will benefit from the cheap power produced from the fully controlled river. See on the map (upper center) the occurrences of phosphates—at other points the presence of bauxite. With the application of power bauxite becomes aluminum and phosphates become fertilizer. Cheap power in large quantities will turn many other minerals in the region to man's use. In homes and industry the greater the quantities of electricity utilized the greater the benefits to people. High electro-chemical and electro-metalurgical processes require large blocks of power. Ranges, refrigerators, water-heaters, and farm pumps also require electricity in larger quantities than has been customary. For volume utilization, electricity must be cheap. Public control over rivers will produce cheap electricity. "Electricity for all" means enough electricity for all and for all uses—at a price the average man can pay.
Electrically cooled food is healthier food for parents and children

The old well house kept food cool... after a fashion... but it certainly was not very sanitary... nor very convenient. Milk, eggs, butter, etc., all perishable foods had to be carried back and forth between the well house and the kitchen.

Modern electric refrigeration is the last word in efficiency, cleanliness and convenience. The constantly maintained cold preserves all foods perfectly. Handy ice trays supply ice cubes at all times for drinks or ice water.

**Better Health for Baby:** Baby’s milk is safe from dirt, dust and germs in an electric refrigerator. Germs cannot breed in the evenly maintained low temperature.

**New and Different Menus.** Electric refrigeration makes possible many delicious foods, desserts, salads, etc., that cannot be enjoyed with other forms of refrigeration.

**It Needs No Attention.** Once it is plugged in, an electric refrigerator needs no attention. The housewife can go away for a day or a week, knowing that it is working perfectly in her absence.

**Saves Money on Food Bills.** There are fewer leftovers with an electric refrigerator. Perishable foods keep for days. Food prices cannot sag, as cheese, onions, etc., cannot “smell up” the box.

An abundance of electrically heated water—all the time—a happier household—a healthier family

Cheap electricity brings to the modern farm and city home the convenience of steaming hot water—on tap 24 hours a day... 

✓ for cooking
✓ for washing clothes
✓ for bathing
✓ for shaving

No hot water on tap here! This woman has to work hard for every drop of water she uses.

Several times a day she must carry heavy buckets of water from the pump to the house.

Household tasks are harder, and take longer, when the only hot water supply comes from the old laundry.

Washday is a real chore in the family shown in the photograph below. Notice the woman heating water in the old-fashioned iron pot over an open wood fire... and the women at the washing board. Cheap electricity would eliminate many of the hardships that are now a part of these people’s daily lives.
Manufacturers have reduced

INQUIRE of your public utility or electrical goods dealer if rates for electric current in your neighborhood have been approved by the Electric Home and Farm Authority as low enough to make purchase of an electric range, an electric refrigerator, and an electric water-heater a practical investment for your family. Electric Home and Farm Authority will not approve rates which raise the cost of using the above-mentioned appliances beyond a point practical for the average income.

IF YOU LIVE in a neighborhood where rates for electric current have not yet been approved by the Authority, ask your utility company to submit its domestic schedules to Electric Home and Farm Authority, Chattanooga, Tennessee, for official approval. The Government has charged the Authority with the definite responsibility of protecting your income. Only cheap electricity can make the use of an electric range and water-heater practical for the average family. Only where electricity is cheap will the Government extend its easy-term purchase plan for home appliances bearing the red, white, and blue insignia of the Authority.

ALL THREE

$6.98

for as low as $6.98 a month at Tupelo rates

Tupelo householders, for as little as $6.98 a month, can buy electricity enough for a generous use of electric range, refrigerator and water heater.

A total of 520 kilowatt hours of comfort and convenience... all for $6.98.
Tupelo...where low rates mean greater use at less cost

THE Tupelo home of Mr. Roy Bogdan had an electric range and an electric refrigerator in 1933. On April 1, 1933, for the use of 274 kilowatt hours of electricity, Mr. Bogdan paid $12.46.

In 1934, Mr. Bogdan's home was still equipped with an electric refrigerator and an electric range. But — his bill on April 1, 1934, was only $3.87 in payment for 337 kilowatt hours of electricity.

In other words, under the new TVA rates, Mr. Bogdan used 63 kilowatt hours more electricity ... and it cost him $6.59 less.

And Mr. Bogdan's experience is like that of scores of other Tupelo residents. All over the city of Tupelo, householders are discovering that the new rates permit them to use their electrical equipment more than ever before ... and still save money.

VOLUME of electricity used by residents of Tupelo shows that Mr. Bogdan's experience is not unusual.

For example — in May, 1934, there were 34,201 kilowatt hours registered on residential meters in Tupelo. In May, 1934, (under TVA rates) consumption jumped to 41,100 kilowatt hours ... an increase of over 40.6%.

Meter readings show that in the average Tupelo home, electricity consumption jumped from 38.0 kilowatt hours in May, 1933, to 49.3 kilowatt hours in the same month of 1934. Thus the Tupelo home is using 29.4% more electricity under the new TVA rates.

These readings indicate that the people of Tupelo were quick to take advantage of the TVA rates. They discovered at once that low rates permit of a fuller use of the many advantages and comforts that cheap electricity offers.

A NOOTHER indication that Mr. Bogdan's experience is not unique is the fact that while Tupelo citizens spent $2,475.84 for electricity in May, 1933 ... they spent only $1,370.01 for electricity in May, 1934.

In May of 1933, the cost per kilowatt hour averaged 7.2c, but in the same month of 1934, under the new TVA rates, the average cost was only 3.8c per kilowatt hour.

This means that the people of Tupelo can not only make fuller use of the appliances they now have, but can buy additional electrical equipment. And appliance sales in this progressive Mississippi community have shown, since the Electric Home and Farm Authority program was inaugurated there in May, that Tupelo householders are taking full advantage of the savings made possible by TVA rates.

What EHFA is...and what it plans to do

ELECTRIC HOME and FARM AUTHORITY is an Agency of the Tennessee Valley Authority. The insignia of Electric Home and Farm Authority, which is displayed on the covers of this booklet, is also the mark of the Power Division of the Tennessee Valley Authority. The insignia is protected by United States Design Patent No. 92194, and may not be reproduced, without official permission, on an electric appliance.

The slogan, "Electricity for All," sums up the aims and purposes of the EHFA program.

This program includes educational work in the use of appliances, as well as research to determine the manufacturing costs of electrical equipment. Research will also be conducted to encourage new and better appliance designs.

Through reductions in rates for electricity by agreements with publicly and privately owned utilities, the use of electrical appliances is made more practical for the average household. Tests for quality and performance assure saver and purchaser alike that approved appliances are the best values manufacturers can produce at the prices asked.

For further information write to Electric Home and Farm Authority, Inc., Chattanooga, Tennessee.
On an appliance, this emblem means that the product has been manufactured to quality standards set by your Government, that it is priced reasonably, and that it can be financed by EHFA.