Headline: LITTLE DAMS COULD MEAN BIG BUCKS

Sub-Head:

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Memo: WAYNE CENTRAL; ALSO RAN IN WAYNE WEST AND DOWNRIVER ZONE

Correction:

Text: As city workers hack at Barton Dam's No. 1 enemy -- ice -- Ann Arbor acting engineer William Wheeler is hoping to best another adversary -- time -- to have two city hydroelectric plants generating power by spring.

Electricity translates directly into money from the city's two new hydro dams, and the high-water months of March and April are peak power-producing months.

The city's new generators could earn \$1,189 a day by feeding electricity into Detroit Edison lines, Wheeler said.

Ann Arbor's two refurbished dams, formerly owned by Detroit Edison, were made possible by a 1978 act of Congress -- the Public Utility Regulatory Policies Act -- which requires utility firms like Detroit Edison to buy electrical power from small producers.

In the late 1970s, energy costs were increasing, and the new law's purpose was to reduce the nation's reliance on non-renewable resources such as coal and oil.

Although energy costs did not continue soaring, the law has met its objective in Ann Arbor.

Nationwide, the number of small power applications has increased from 47 in fiscal 1981 to 289 in fiscal 1984, said Barbara Conners, a Federal Energy

Regulatory Commission public information officer.

On the Huron, however, results of the new law are mixed at best. The four dams at Ann Arbor, two dams at Ypsilanti and one in Van Buren Township have a potential of adding 5.5 megawatts of power to the Detroit Edison system, said Don Johns, of the state Public Service Commission.

Detroit Edison's entire system in southeast Michigan generates about 8,000 megawatts.

When Ann Arbor's Barton and Superior dams start sending power down Edison lines in the next few weeks, however, they may be the only hydro dams operating on the river.

The old Ford dam now owned by the Joint Ypsilanti Recreation Organization (JYRO) stopped generating Dec. 30 because of technical problems with the 1920s generators, said Tom Willoughby, chairman of JYRO's hydro committee.

An Ypsilanti city lawsuit challenging Ypsilanti Township involvement with the dam also has complicated JYRO's efforts to find a private developer -- and financing -- for the dam.

The cost of improving the hydro generators to make them profitable would be well over \$1 million, and JYRO doesn't have the money, Willoughby said.

LAST WEEK, meanwhile, Van Buren Township got bad news, too. Its plans to refurbish the old French Landing Dam and sell power to Detroit Edison were put on hold when the Energy Regulatory Commission declined to renew Van Buren's exemption to federal licensing requirements.

The problem, commission officials say, is that Van Buren Township had been given an exemption as early as 1982, but failed to start timely construction on the plant.

Loss of the exemption means more bureaucratic red tape for a small power developer like Van Buren, including inspections by the commission and state agencies.

The City of Ypsilanti also is eying a hydro project -- the old Peninsular Paper Co. dam, which could be a source of income for the city.

Neither of the other major rivers in western Wayne and Washtenaw counties -- the Raisin nor the Rouge -- has commercially working hydro plants, Johns said.

SO FAR, the scenario at Ann Arbor has been a model of success.

Detroit Edison dismantled its four Ann Arbor dams in 1962. In 1963, the utility sold the dams to the city, which has maintained the impoundments for boating and fishing.

In 1982, city residents approved a charter amendment allowing the city to run a public utility. In 1983, voters approved the sale of \$3.2 million in general obligation bonds to pay for upgrading the dam sites and installing turbines, generators and switching equipment.

With all new equipment installed at Barton and Superior dams, start-up procedures were under way this week, with the first amps of electricity due to flow into Detroit Edison lines late in February. By mid- or late March, Superior dam should be producing.

TOGETHER, the two dams are expected to produce about 1.5 megawatts of

electricity.

The bonds are to be paid off over 24 years, but the dams are expected to earn profits in 10 years and perhaps sooner, Wheeler said.

In the early years of the city's contract with Detroit Edison, the utility is required to pay 6.2 cents a kilowatt-hour, a rate more than double that paid to large commercial sellers of power, Wheeler said.

Van Buren Township has had problems with its French Landing Dam project ever since November 1984, when township voters rejected a proposal to issue revenue bonds to pay for renovating the dam and installing a two-megawatt generating plant.

WHEN THE bond proposal failed, the township began looking for bank loans. Banks wanted the township to mortgage the hydro plant to their financial institutions, but the township's power sale contract with Edison gave the mortgage to the utility, said Johns at the Public Service Commission.

The mortgage to Edison would not have posed a problem if the township were developing the dam with bonds, because the township would stand behind the bonds, said Dana Dougherty, of the Ann Arbor engineering firm, Ayres, Lewis, Norris & May Inc.

"The project never has been financed," Dougherty said.

Without financing, the project could not be built. Meanwhile, at the Federal Energy Regulatory Commission, the exemption clock was ticking.

THE COMMISSION first exempted Van Buren from its normal licensing procedures in June 1982. Work on the dam was supposed to have begun by December 1983, said Sharon Hyland, a commission public information officer.

Van Buren missed the 1983 deadline and asked for an extension. The commission denied the extension, but later granted an extension until December 1984, following an appeal from the township, Hyland said.

By June 1985, there was still no work at the dam, and the Energy Regulatory Commission again revoked the exemption, Hyland said. The township appealed, and last week the commission denied the appeal.

WHY DID the commission reject the latest Van Buren appeal?

"You can get to the point where you are continually extending deadlines," Hyland said. "(The commission) was not standing in their way -- it has been 3 1/2 years since they received the exemption and they still have not begun construction."

Van Buren could appeal to the federal courts, or they could follow the normal process of licensing followed by small power producers, she said.

Exempting small generators from certification is supposed to speed their construction, but that has failed for Van Buren, Hyland said.

"It seems they have a problem with financing. If they decided they would start the process again, it seems to me they would get their financing in line," Hyland said.

ACCORDING TO Van Buren Treasurer Helen Foster, though, the township had negotiated new contract terms with Detroit Edison. Instead of a mortgage, or first lien on the plant, the township was to pay part of its electricity income into an escrow fund as an assurance to Edison that the township would

keep faith.

However, Van Buren had signed no new contract with Detroit Edison, and the old document -- with first mortgage going to the utility -- was still in effect, Foster said.

Why would Detroit Edison want a mortgage on a small power dam? "Put yourself in Edison's place," said Ann Arbor's Wheeler. "You're a utility company, you're in business to make a profit. The last thing you want is somebody coming in with a peashooter dam and the PSC telling you how much you've got to pay them for it. That sets the tone."

ANN ARBOR'S CONTRACT starts with Edison paying the city more than twice the market value of electricity, but the contract calls for declining prices over the years.

In effect, Wheeler said, Edison is helping the small producer finance its dam in the first years, when capital investment is heavy. Later, the "investment" is recouped when the small producer receives less than the going rate for power, Wheeler said.

The public utility protects its investment in the first years by demanding a mortgage, he said.

Not all hydro plants have been as fortunate as Ann Arbor in negotiating rates with Edison.

FORD MOTOR CO. gave the two-megawatt Joint Ypsilanti Recreation Organization generating plant to the City of Ypsilanti and Ypsilanti Township in 1969, said Willoughby.

While the cost of improvements at the JYRO dam would be heavy, the investment would make the plant eligible for higher rates from Edison.

Right now, JYRO gets 2.3 cents a kilowatt-hour from Edison.

"If we were making six cents, we would be in glory, but it hasn't even been break-even," Willoughby said.

JYRO has been negotiating with Michigan Hydropower Associates Inc., which could improve and operate the dam in return for a share of the revenues.

JYRO would receive between 30 and 40 percent of the income, Willoughby said.

While JYRO has a \$300,000 state grant for dam improvements, "that only goes a third of the way," Willoughby said.

YPSILANTI city now owns the former Peninsular Paper Co. dam, which was run for the firm by Edison until 1970. The two generators, capable of one megawatt of power, have been removed. Ayres, Lewis, Norris & May have recommended installing two smaller generators, said Dougherty.

The city is now applying for an exemption from Federal Energy Regulatory Commission licensing procedures, and certification could take between six months and three years, he said.

CUTLINE:

In Ann Arbor, the newly refurbished Barton dam is expected to start producing electricity by this spring. So far, the city's program to generate power has been a model of success. At left, Dave Brys, field service engineer for Westinghouse, checks out the Barton Pond plant before start-up. At right, a

warning sign along the catwalk above the Huron River at the plant.
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