

New 'old hand' takes helm at Utilities Dept.

Just keeping up with the booming utility demands on the North Slope will take a lot of energy and the man who has been asked to supply it is Joe Murphy, the new Director of the North Slope Borough Utilities and Transit Department.

"Our housing and power requirements have been doubling every two years. A lot of my job will be keeping up with this demand for new utilities," says Director Murphy.

The Utilities Department handles the essentials of community life on the North Slope: electricity, gas, water, sewage and transportation. It is up to Murphy and his Department to see that these ingredients of the good life get to each and every village and Prudhoe Bay.

The challenge is not new to Murphy. As long as there has been a North Slope Borough Utilities Department, he has served it. He started as an Energy Engineer when the Utilities Department was formed in July 1979. He speaks the language of "peak usage" and "megawatt units" as only a man with twenty-five years of experience for electrical companies and contractors can. The last eight of those years were spent in Alaska including all of the North Slope Borough villages and Nome.

He is proud of where the North Slope Borough Utilities Department is heading. "In the last two years we have put up some of the best electrical distribution lines in the State or anywhere else. Most of our power houses are new within the last two years."

But Murphy doesn't spend too much time talking about past accomplishments. To keep up with the growth on the North Slope, he doesn't have time. As he points out, in the face of increased demands even those new power houses may soon have to be updated or expanded.

To win the race against new utility demands, Murphy's De-

partment has several major projects about to start. These new projects have been designed to boost service output up while holding service charges down.

Barrow-Atkasuk Power Line

A power line from Barrow to Atkasuk and eventually to Wainwright is one such project. It will allow residents in those villages to share power with Barrow where it can be produced with low cost gas. Murphy expects such a line to replace the present village dependence on fuel oil which with price increases of some 50 cents a gallon every year has become a cancer in the North Slope economy.

The Arctic, as Murphy points out, is ideal for power line transmission since electricity flows more easily in the cold. In other parts of the country, ice and trees can tear down power lines. On the North Slope low humidity produces very little ice to weigh down wires and, of course, trees are not a problem. Power poles secured deep in the frozen arctic ground can, according to Murphy, easily withstand even the howling tundra winds.

Meetings to set the final design for the power line were held in February. Murphy hopes the connection from Barrow to Atkasuk will be completed by next spring, after a full winter of construction. The link to Wainwright is then slated for the winter of 1983-84.

Coal

Coal is another force that may cut the fuel oil cancer out of North Slope villages. Murphy reports that in both Wainwright and Atkasuk, the Utilities Department is investigating surface coal veins. Some villagers have been using this coal to supplement other heating fuels for years. But collecting coal is long, hard work for the individual home-



PHOTO BY ROBERT W. HARPER

Joe Murphy moves up in the North Slope Borough Utilities Department to the Director's seat. "A lot of my job will be keeping up with (the) demand for new utilities," says Murphy.

owner. This is where the Borough may be able to step in and make coal more easily available.

"We're looking at converting the present power plant at Wainwright to coal and the possibility of heating homes with coal stoves in Atkasuk," says Murphy.

Wind

Another fuel alternative may be wind. The Utilities Department plans to experi-

ment with a windmill in Kak-tovik. Murphy warns, however, that until the technology improves, large scale windmill power is something for the future.

"Their reliability just isn't good right now. They are making progress and hopefully in the next couple of years we may be able to use them more than we can now."

A big problem with windmills is shutting them off when

winds get too high. "When you get high winds the automatic shutoffs on windmills frequently fail," according to Murphy.

"As a result, the generators they are connected to burn out. We've had reports from the Alaska Power Authority citing these problems. There just isn't anything worth putting up right now."

Still, Murphy sees a need for the North Slope Borough to be involved in testing energy alternatives. He points out that almost all of the utility projects attempted by the Utilities Department are new and unique because of the environment they are constructed in.

Conservation

The Utilities Department is also involved in efforts to help consumers learn to conserve energy. An Energy Planner has been hired by the Borough to conduct home energy audits that will point out improvements that can cut fuel and electricity bills.

Making its own operations more efficient is another continual concern of the Utilities Department. Along these lines the new Director cites a heat recovery system soon to be added to the Barrow generating turbines that will squeeze 1200 kilowatts of added electricity out of the present system without any extra fuel requirements.

Sanitation and transportation are also part of Murphy's domain. Transportation plans will be implemented in all the villages and, of course, sewer pickup service is carried out in each. New sewer and water trucks were sent to each of the villages with a completed road system this fall.

The Utilities Department serves North Slope residents in so many ways. It is reassuring to know that the responsibility for the department rests on experienced shoulders.