

Energy Insider by William Engdahl

A proposal for the American West

It is necessary and possible to project energy development over the coming two decades. Nuclear is the key.

I am in the midst of preparing a detailed report on the deliberate attempt of certain policy circles, best exemplified by Robert O. Anderson of the Aspen Institute and the ARCO oil and coal conglomerate, to insure that the vast potential of the American West remains undeveloped and underpopulated.

To measure the enormity of their sabotage, we need to compare it with the actual potential for a real nuclear-based energy infrastructure in the 17-state region west of the Mississippi.

The following summary has been developed to complement the national water policy outlined in the North American Water and Power Alliance (NAWAPA).

First, it is crucial to realize how enormously underpopulated the region is. Consider West Germany today, one of the world's most advanced industrial nations, which presently supports some 62 million people. Oregon, with the same land area, supports barely 2 million.

For medium-range economic planning consideration, we must make certain actually modest estimates of what our population growth for the entire region will look like, let us say, at the end of 20 years—2002. Using the recent California growth of 24 percent over one decade, we project slightly more than a 2 percent annual net increase for the 17 states. There are 85 million Westerners today; by 2002, at that rate of growth, the

population would reach about 131 million.

Next, we must plan for per capita electricity growth over the period, historically the crucial leading index of accelerated industrial and technological growth. Because the overall U.S. economy has been in actual economic decline since at least the 1973-74 "oil shock," we took a relatively healthy decade of industrial growth for our metric, the 1957-1966 period. Using this growth rate, we will need to increase total electric capacity for the entire region by 280 percent over the 20-year period.

We now have a basis for making some policy determinations. We will need to increase our per capita electric capacity from the present 2.75 kilowatts to some 7.7 kw per person for the region by 2002. To support our projected population of 131 million, this means that the 17-state region will need some 1008 gigawatts of electric capacity (GWe) by the early years of the century. In 1980, the United States had 613 gigawatts nationally, 246 in our region.

If we assume that NAWAPA hydroelectric capacities of an estimated net 40 GWe will be available by this point, we then have an approximate 720 GWe deficit. This is the approximate equivalent of about 700 of today's average nuclear unit. If we produce the entire deficit from nuclear power, in addition to the immediate revival of the

depressed uranium industry which is based along the New Mexico-Colorado spine, the quality of new employment created would be extraordinary.

Using current industry experience, building each 1-gigawatt nuclear unit directly creates 4,000 high-skilled construction jobs for pipefitters, machinists, engineers and so forth. Because of plant quality requirements, the jobs are at the most advanced skill levels. In addition, some 4,000 additional jobs are an indirect result of one such plant. Over our 20-year target period, thus, a 720 GWe nuclear construction program for the West could create positions for some 5,760,000 such highly qualified workers in the 17-state region.

EIR has also looked at projections over the relative near-term to 1990, some eight years hence. Working back from our 20-year goal, we will have had a 19 percent population increase and will have a 175 GWe capacity shortfall.

Assuming nuclear licensing reform and plant standardization to bring us down from the present absurd 12-14 year completion time into line with the 5-6 year averages in France, we then can conservatively aim to construct some 90 GWe of our shortfall from nuclear by 1990. This means that as a medium-range transition, we will want to supplement this nuclear with the abundant coal and hydrocarbon resources of the region, such as in the coal-rich Powder River Basin in Wyoming and Montana.

If we achieve this intermediate goal, we will then be well-positioned to tackle the more ambitious, but clearly realizable target of our 2002 period goal. It is an exciting prospect.