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Possible Downward Revision of/Fifth Five Year Plan Goal for Electric Power Generating Capacity

There are indications that the current Five Year Plan goal of doubling the 1950 installed generating capacity by the end of 1955 will not be fulfilled, although Five Year Plan electric power production goals will probably be overfulfilled. The demands of the new consumer goods program, and the greater disposition to discount an early "hot war" with the attendant need for a larger reserve of installed capacity are possibly both contributors to this failure to meet capacity goals. A more important cause of this failure, however, probably is that the large, costly, hydroelectric stations, such as Kuybyshev and Stalingrad, proved to be more of a drain on available resources than anticipated, and that planned construction of smaller thermal electric power plants was cut back in favor of attempted on-schedule completion of the "grandiose construction projects."

M. G. Pervukhin, former Minister of the Ministry of Electric Power Stations and Electrical Industry, made the following statement in an election speech in April 1954:

> "For the purpose of providing electric power for the needs of industry, agriculture and town economy, which are being developed, a grandiose programme of electrification is being carried out here according to the Fifth Five Year Plan.
> 711 power stations are being built and extended, after the completion of the construction of which the total capacity of the power stations of the USSR will increase by 75%." 1/

This statement is not without its ambiguities, but the most probable interpretation is that the stated 75 percent increase in capacity refers to the period of the current Five Year Plan. If so, this indicates a substantial drop from the original goal of doubling the installed capacity, i.e., 100 percent increase. 2/ It would seem, however, that the revised goal is attainable.

There have been other indicators, besides this recent one, that the Soviets were experiencing difficulties in meeting the original goal of doubling the estimated 1950 capacity of 21 million KW, necessitating an average annual increase of 4.2 million KW. About 3.0 million KW were added during the first year of the Five Year Plan. 3/ About 2.0 million KW were added during 1952, 4/ and 2.8 million KW were added during 1953. 5/ Plans were underfulfilled during these years. It was admitted in February 1954 that "the plan for putting into operation of production capacities... in 1953 as been greatly underfulfilled by the Ministry of Electric Power of the ministry were also underfulfilled in 1951 and 1952. 7/ Approximately in 1951 were also underfulfilled in 1951 and 1952. 7/ Approximately Since plans for installed capacity were underfulfilled in 1951, 1952, and 1953, and since only about 12 million KW will be installed from 1951 through 1951, the large increments of capacity due to be installed in 1955 (when a not, even if completion date plans are scheduled for completion)\*\* will additional 9 million KW capacity necessary to fulfill the original goal of the current Five Year Plan.

One of the reasons for this underfulfillment may be that Soviet planners revised their estimate of the possibility of a "hot war" commencing in the near future, thereby reducing the urgency of acquiring a sizable reserve generating capacity by 1955. This is the most speculative and is without substantiating evidence. However, it should be noted here that the plan for production of electric power has been fulfilled so far and indications are that the production goal of the Fifth Five Year Plan will be overfulfilled. 9/ This means that the existing installed capacity is still being 'pushed' and annual hours of operation of plant equipment remain at a high

\* The Fourth Five Year Plan goal of 22.4 million KW by the end of 1950 is not believed to have been achieved, in spite of the fact that reference is made to this plan figure in Soviet publications after 1950. During the period of 1946-50, statements were made in the Soviet press relative to serious underfulfillment of the plan for putting new plants into operation. However, the amount of capacity installed at the end of 1950 is unknown, with estimates ranging from 19 to 23 million KW. An estimate of 21 million KW, considered to be a maximum attainment, is used in this report.

\*\* The major hydroelectric stations scheduled to go into operation (not necessarily at full capacity) during 1954-55 are listed as follows:

Project	Planned Capacity KW	Planned Commissioning Date
Molotov on the Kama	400,000 - 500,000	1954
Gorodets on the Volga	400,000	1954
Kuybyshev on the Volga	2,100,000	1955
Kakhovka on the Dnieper	250,000	1955

level, possibly deferring maintenance and repair, in order to satisfy the ever-increasing demand for power. There is probably very little reserve capacity that could be used to satisfy the increased demand which would result from a rapid industrial conversion to wartime production. Incidentally, the Soviet planners called for electric power generating capacity reserves of 10 to 15 percent by the end of the prewar Third Five Year Plan, which was, of course, interrupted by the German invasion. 10/ The Fifth Five Year Plan, as originally reported, envisioned a considerable increase in reserve capacity by 1955. That is, a 100 percent increase in capacity with only an 80 percent increase in production was called for.

It is also possible that the new policy of stepping up consumer goods production may have resulted in current lower priorities for power plant construction. Investments in the electric power industry, it is true, lagged behind the annual plan in 1953, but it is planned to invest 13 billion rubles for the construction of electric power plants and networks in 1954, representing a 21 percent increase over 1953. 11/ (An increase of 18 percent in investment has been reported for the first half of 1954 over the first half of 1953.) 12/ In fact, since the implementation of the new consumer goods program in the spring of 1953, construction of all major hydroelectric stations then under construction was continued, or speeded up, in spite of the reported abandonment of several large canal and irrigation projects. 13/

The main factor for this underfulfillment may be that the construction of the Kuybyshev, Stalingrad, and other major hydroelectric stations resulted in more of a drain on resources, manpower, and on the electrical machinery industry than anticipated. Under these circumstances, the construction of planned, smaller, "run-of-the-mill" thermal electric power plants may have been curtailed in favor of an all-out attempt to complete the much publicized grandiose hydroelectric plants on schedule. This third hypothesis, including the possibility of a marked change of policy in 1951 or 1952 favoring to an even greater extent the Soviet policy of emphasizing the construction of hydroelectric plants at the expense of thermal electric power plants, seems at this time to be the most likely. Pervukhin stressed this further, in an election speech in April 1954, by devoting several paragraphs to reasons for "the necessity to extend in every way the construction of hydroelectric stations..." 14/

While not totally discounting other possibilities stated, it is believed that the inability or indisposition of the Soviets to install new generating capacity as originally outlined in the Fifth Five Year Plan is due principally to a subsequent decision to concentrate available resources on the construction of large, costly hydroelectric stations which take a longer time for construction, rather than smaller thermal electric power plants. This does not mean that little thermal electric power plant construction is, or will be, undertaken, but that some planned construction has been deferred or canceled.

Coordinated with:

## SOURCE LIST

- 1. Pravda, 27 April 54, p. 4.
- 2. Draft Directives of the Fifth Five Year Plan of the Soviet Union, transmitted by TASS, 20 Aug 52, FBIS, Official Use  $O_{\rm nly}$ .
- 3. FBIS Daily Report, USSR and Eastern Europe, No. 8, 1953, Official Use Only.
- 4. Elektricheskiye Stantsii, No. 6, June 1954, p. 3, U.

It was stated that 14.9 percent more capacity was introduced in 1953 than in 1952. Since 2.8 million KW was reported added in 1953, according to the above statement about 2.0 million KW were installed during 1952. (The percentage figure may refer to Ministry of Electric Power Plants stations only, but these account for at least 80 percent of installed capacity and the figure may be applied to total capacity with little error.) This is to be considered a minimum estimate as it is possible, although not probable, that the figure may be as high as 3.6 million KW.

- 5. FBIS Daily Report, USSR and Eastern Europe, 12 March 54, Official Use Only. (Address by M. G. Pervukhin.)
- FBIS Daily Report, USSR and Eastern Europe, 1 Feb 54, Official Use Only. (Statement by the Central Statistical Administration of the USSR Council of Ministers.)
- Elektricheskiye Stantsii, Jan 1952, p. 3.
   Elektricheskiye Stantsii, Jan 1953, p. 3.
- 8. Pravda, 27 April 54, p. 4.
- 9. Contribution to ORR Project 5 Aug 54, S.

FBIS Daily Report, USSR and Eastern Europe, No. 21, 1954, Official Use Only. FBIS Daily Report, USSR and Eastern Europe, No. 15, 1953 # # # FBIS Daily Report, USSR and Eastern Europe, 17 July 1953 # # #

- 10. Economic Geography of the USSR, p. 236.
- 11. Pravda, 27 April 54, p. 4.
- 12. FBIS Daily Report, USSR and Eastern Europe, 23 July 54, Official Use Only.
- 13.

Pravda, 20, 22, 25, 26 Feb 54.

14. Pravda, 27 April 54, p. 4.