

CONSEIL DE L'ATLANTIQUE NORD NORTH ATLANTIC COUNCIL



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NATO CONFIDENTIAL WORKING PAPER AC/89-WP/184/2

SUB-COMMITTEE ON SOVIET ECONOMIC POLICY

1 :

PROGRESS MADE IN THE USSR UNDER THE SEVEN-YEAR PLAN WITH THE CONSTRUCTION OF POWER PLANTS AND THE PRODUCTION OF ELECTRICAL POWER.

Comments by the French Delegation on AC/89-WP/184

The extremely interesting and detailed report submitted by the German Delegation is largely based on official documents and statistics. It highlights all the difficulties which have been encountered by the engineering industry manufacturing power plant equipment in meeting the requirements of the electrical industry.

- l. The poor quality of steel for transformers is only alluded to (page 13, paragraph 29). It should perhaps be pointed out that while the number of transformers produced is satisfactory, the industry is hampered by the poor quality of the raw materials which it uses (steel for transformers, electro-technical cardboard, machines). This leads to wasteful use of electrical energy and greater metal wear than in foreign models.
- 2. The dates given for the start of production of certain models differ, sometimes by one or two years, from the dates on our files (e.g. page 7, the 200 Mw condensation turbines were produced in 1958 and not in 1957).
- 3. Since the reference document was drafted, the USSR has published the results of the 1965 output plan and the directives for the new five-year plan. This makes it possible to complete the table on page 8.

1965 Output Achievements

Turbines (millions of kw)	14.6
Percentage increase over 1964	10.8%
Generators (millions of kw)	14-4
Percentage increase over 1964	12%

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- 4. These figures show that the production target for turbines in the Seventh Plan was only 71.5% to 72.6% achieved and that the generator target was only 73% to 82% achieved (paragraph 25, page 13).
- 5. The electrical energy production target in the 1966-1970 plan is a lower one, 840 to 850 million kw/h in 1970. This means that new power plant production capacity scheduled for the next five years will be 64 to 66 million kw/h (instead of the 90 million kw/h mentioned in paragraph 26, page 13). The plan provides in the main for the construction of steam-generator condensation stations with a capacity of 2,400,000 kw and over using 300 Mw turbines (see page 9, paragraph 16). In the case of hydraulic turbines, 500 to 550 Mw models will primarily be used. Turbine production should increase from 14.6 million kw in 1965 to 22 to 24 million kw in 1970 (i.e. a yearly growth rate of 9.5% to 10.5% instead of the 14% originally required).
- 6. Page 9, paragraph 13: The Seventh Plan initially provided for the construction of six or seven 2,400 Mw generating stations (with eight 300 Mw batches). The eight batches, to which reference is made in this paragraph, were probably to be built at the Kirov works at KHAR KOV, the first Soviet undertaking to have built this type of turbine, in November 1959. It has already produced five and perhaps the sixth batch.
- 7. Paragraph 14: The Leningrad Engineering Works are also building a single-shaft 500 Mw turbine.
- 8. Paragraph 15: The Leningrad and KHAR'KOV works are developing a single-shaft 800 Mw turbine. The technical designs have been completed.
- 9. Paragraph 20, page 11: The 2,500 t per h boiler producing effective pressure of 255 kg/sq.cm. at 565 C for the 800 MW turbine planned for the Slaviansk station was completed early in 1965. Projects for even more powerful turbines (750 and 800 MW hydraulic models and 200 MW gas models) are being developed.
- 10. Paragraph 5, page 12: The "Elektrotiaj Mach" works at KHAR'KOV are building an 800 Nw turbo-generator.
 - 11. In conclusion, the following points should be noted:
- Page 6: The length of electrified railway at the end of 1965 was 25,000 km. (delete probably).
- Page 15: The MELEKESS automic energy station, which is a 750 kw station, has now been completed.

The tidal power generating station at KISLAJA CUBA did not come into operation in 1965 as planned but will start production in 1966.

The geothermic station at PAUZEC (and not PAUCHAT) started production on an experimental basis in March 1965.

For "800,000 kv high voltage lines" read: "800 kv" or "800,000 V high voltage lines".

The 800 kv Volgograd-Donbas high voltage line is operational and has just carried its first milliard Kwh.

Page 16: The interconnection of the Soviet system with the Polish, Czech, Hungarian and Rumanian systems has been completed. The interconnection with the Bulgarian system is being created by means of the 220 kv Crarova-Bajcinovci high tension line. A 400 kv line is planned between Bulgaria and Kucurgan (USSR) via the Rumanian People's Republic.

OTAN/NATO, Paris, (16e).