

## South Fremantle Power Station

Perth, Dec. 3.—Before the new South Fremantle power station was completed it would be necessary to make plans for another station near Perth, said Mr. G. R. T. Taylor, chairman of directors of the International Combustion Co., one of the largest boiler making firms in England, when he reached Fremantle in the Orontes to-day.

A power station was almost out of date before it was built, said Mr. Taylor. In this era when every country was short of power it was necessary to plan well ahead. Electricity was the base for all industries and for the progress of a country. His firm had supplied boilers for the South Fremantle station.

While in Perth, Mr. Taylor will confer with the Premier, Mr. McLarty, and senior State Government officers. He was last in this State two years ago.

## More Plans

The State Electricity Commission, Mr. Brand said, was already planning for a new power station which would be constructed at Bunbury. Designs for the first section were in hand. As soon as the second turbo-alternator at South Fremantle began operating, the general manager and chief engineer of the commission (Mr. F. C. Edmondson) would leave for the United Kingdom, the Continent and the United States to confer with power authorities on the latest developments. In due course there would be in Western Australia generating capacity six or eight times the capacity of the South Fremantle station, which was planned to house four turbo-alternators with a total capacity of 100,000 kilowatts.

Mr. Brand said that East Perth power station would be re-vitalised with the provision of two new turbo-alternators and their boiler plants with an output of 25,000 kilowatts each. A request had been made to extend mains through Mundaring and Northam to Kellerberrin so that the steam pumps on the Goldfields water-supply scheme could be changed to

## LARGE POWER STATION FOR BUNBURY

Mr. Frank Guthrie, M.L.A., commenting on Wednesday of last week, said that he estimated that the proposed Bunbury power station, reckoned at 200,000 k.w., will be four times as big as the present South Fremantle station. He was commenting on the statement made by the Minister for Electricity (Mr. Brand) at the opening of the South Fremantle power station, that plans for the Bunbury power station were already being prepared and test bores have already been taken, showing that the north shore site is suitable for the development proposed. Mr. Brand also stated that there would be no delay in getting on with the work.

## GIANT POWER PLANT FOR BUNBURY

A POWER station of 200,000 kilowatts—twice as big as the South Fremantle power station—is being planned for Bunbury.

Two 30,000 k.w. generators will be installed for a start. Tenders for these will be called soon.

Premier McLarty said this when addressing a meeting held by Leederville Assembly seat LCL candidate Melville.

This and the Collie power station, which had been enlarged at a cost of £300,000 would tie up with the South-West Power Scheme which the Government was pushing ahead.

South Fremantle and East Perth power stations would supply more than 150,000 k.w. for the metropolitan area.

East Perth power station—until June the metropolitan area's only source of supply—was being rehabilitated. Tenders had been authorised for new plant costing about £1,000,000.

## *The Next Ten Years*

# Plans Have Been Made For More Supplies Of Power

The development of Western Australia is tied in with the availability of power for primary and secondary industry.

The next ten years are likely to see large-scale expansion in the provision of power, particularly in the southern portion of the State.

It is also possible that, before 1963 has passed, a power scheme based on Geraldton and extending into the hinterland may be under construction and if not under construction, certainly under consideration.

Because of the excellent work done by the Electricity Advisory Committee, the expansion of electrical power over the next ten years can be readily envisaged.

In addition, one important change will take place in the almost immediate future so far as the metropolitan area is concerned.

This is the conversion from 40-cycle to 50-cycle power, which will bring Perth into line with the rest of Australia and remove an anomaly which has often been a costly annoyance to industry in particular and domestic consumers in general.

### **Industries**

During the next ten years, additional work will be undertaken at the South Fremantle power station to provide ample power for any industrialisation which

for any industrialisation which will take place.

Within that time the East Perth power station will be rehabilitated.

Within that period, the new station at Bunbury with an ultimate capacity of 400,000 kilowatts will probably have been completed and a 132,000 volt transmission line will link it with the South-West power scheme and the metropolitan area providing an efficient grid system for the lower portion of the State and removing for many years any worries about power.

This development will give confidence to industry and will add to the standard of living throughout the State but particularly in many rural areas.

### **Fuel Costs**

With the cheap production of Collie coal, costs might be reduced to a competitive rate compared with the rest of Australia, and Western Australia might have the distinction of having the most modern electrical system in operation in the Commonwealth.

As a result, decentralisation might be a growing economic

As a result, decentralisation might be a growing economic trend with the electrification of rail transport over a considerable distance.

This decentralisation might also be assisted by the adoption of the Lurgi process to procure gas from Collie coal. This scheme today is not practicable because it depends for its success upon large-scale consumption.

### Gas Coal

If within ten years the population of the metropolitan area has grown to 1,000,000 with a corresponding increase in the South-West, the Lurgi process may be used successfully in treating coal and converting it to gas, providing alternate power and fuel to consumers.

The adoption of the Lurgi gas process may have become an urgent matter by 1963, particularly if firewood continues to become scarce or too dear. Consumers may then be demanding alternate sources of fuel or heating.

To meet this demand at a low cost, and with the coal available at Collie, Lurgi gas may be providing many homes between Bunbury and Perth with heat and power.

If this should occur, the South-West section of the State will be well-off for power, having the choice of either gas or electricity.

### Domestic Use

Changes in domestic architecture may also be incorporating built-in heating units to replace open fire-places and domestic air-conditioning plants may be the normal thing in homes then as refrigerators are today.

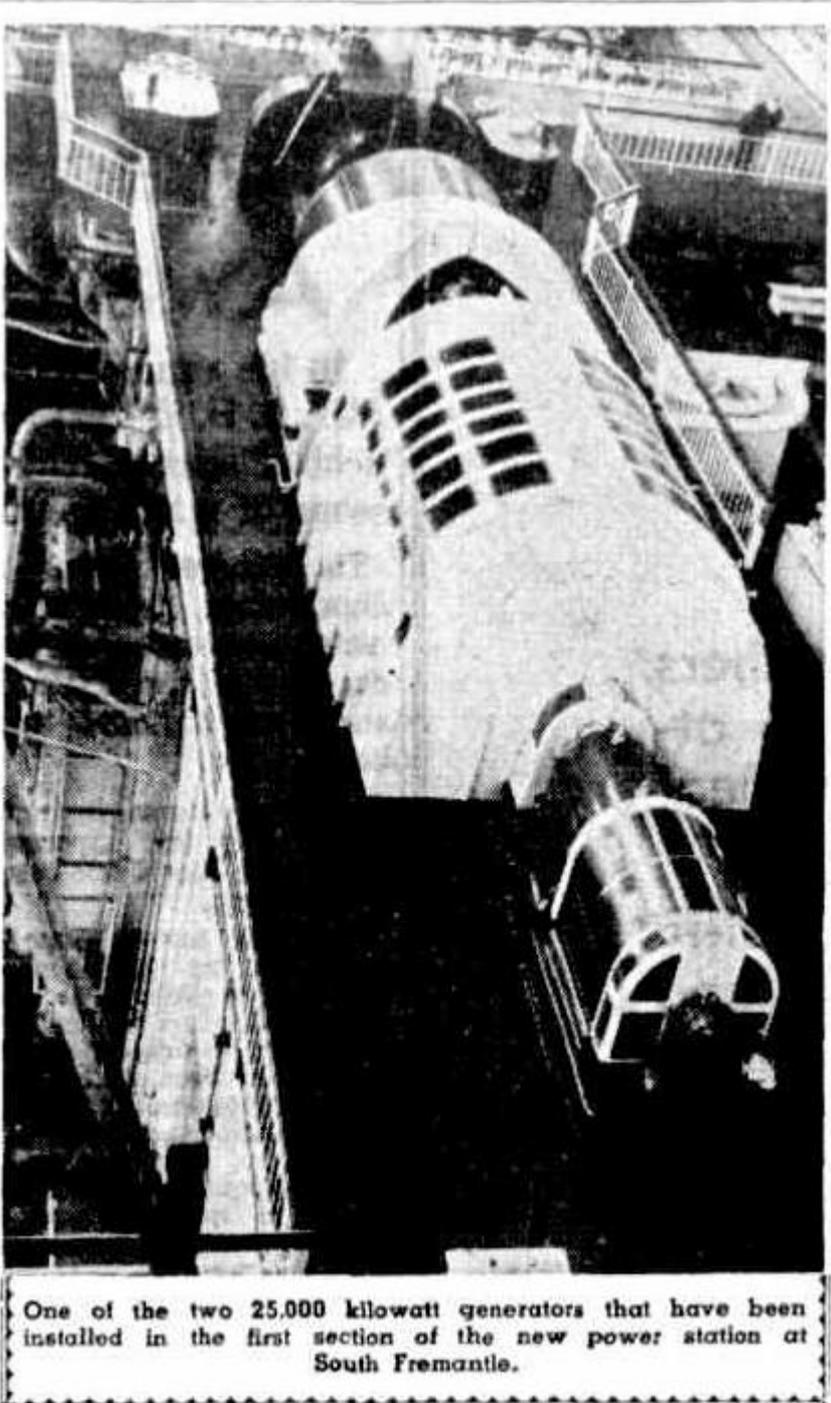
There is little doubt that reasons of economy will see a greater output in the next ten years

A plentitude of cheap power may result in more and more refrigerators, deep-freeze units, television sets, radios, air-condition plants, washing machines being put into use, providing most of the people of this State with a standard of living comparable to anything in the world.

Before the next ten years have passed, Western Australia will be fully equipped to meet all demands for power and heating, whether from industrial users, rural producers or housewives.

from open cuts. The State must have cheap coal and today, with large seams, plus the miners' objections to pillar removal, coal can be produced cheaply only by open-cut methods.

A plentitude of cheap power

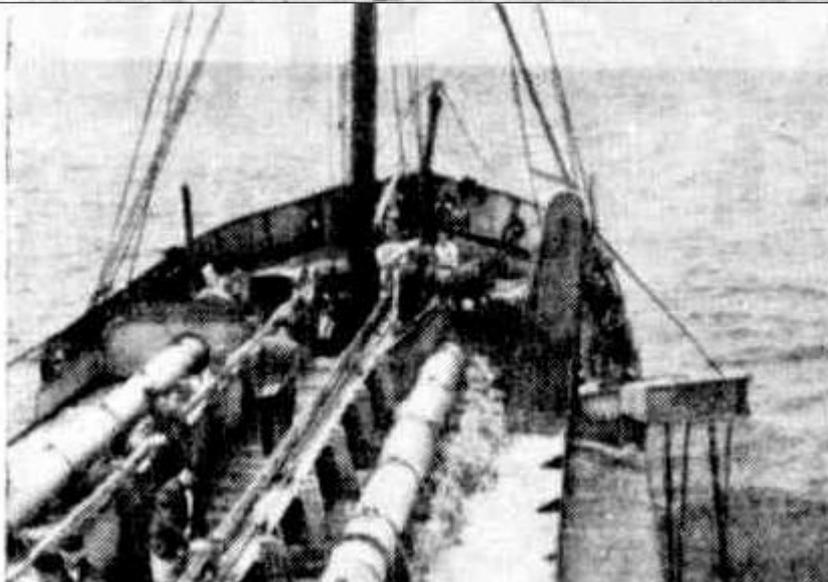
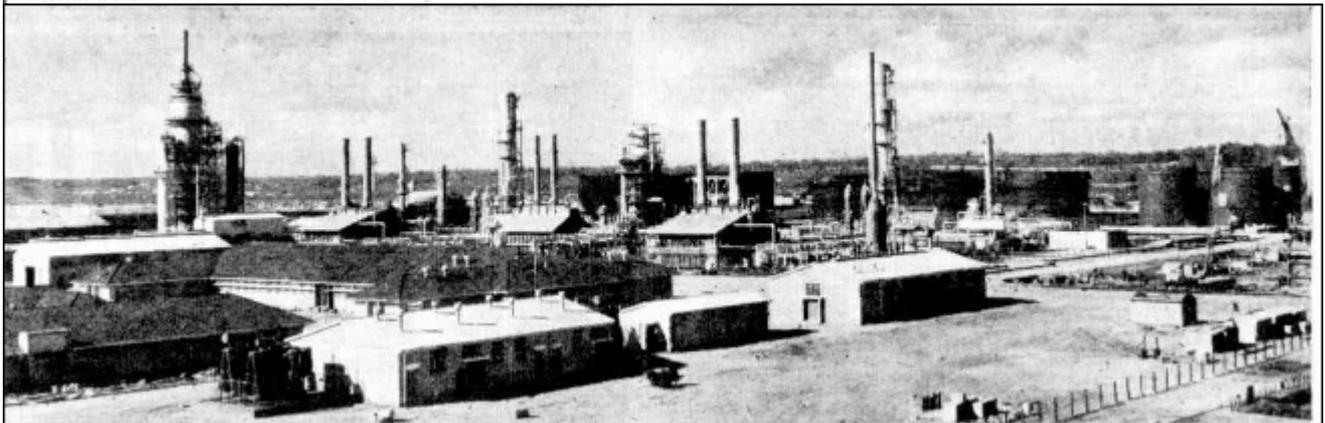


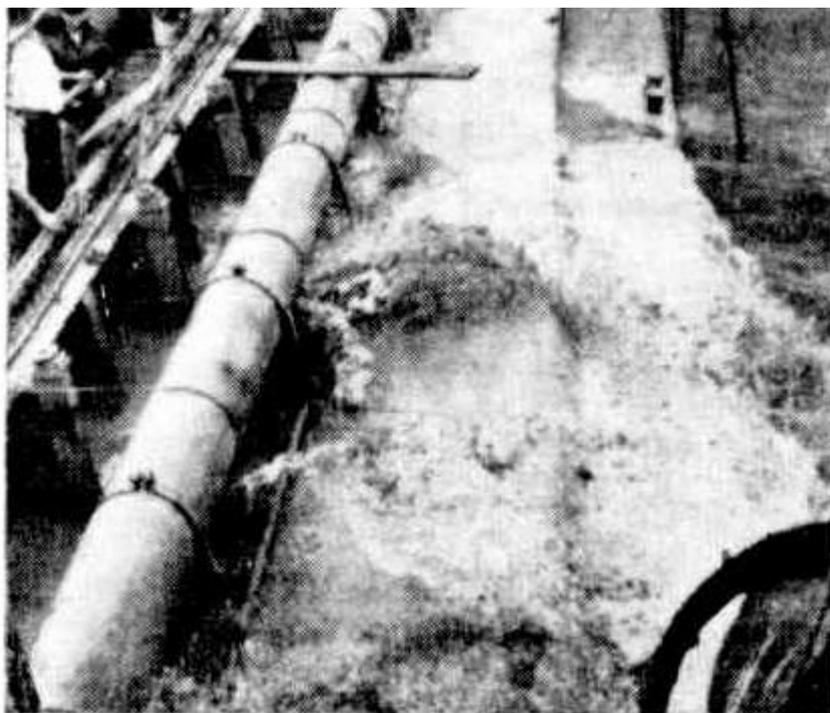
## Huge Plant Dominates Kwinana

Dwarfing other buildings at Kwinana refinery is the 200 ft. high "glamour" unit, the catalytic cracking plant. ➡

The plant (at left) receives heavy feedstock from the vacuum distillation units and cracks the molecules by the use of a catalyst and high temperature.

A large part of its output is high-grade motor spirit and diesel oil.





## *Dredging Work Goes Ahead*

◀ Dredging of the entrance channels to Cockburn Sound is going so well that it may be completed at the end of next year—15 months ahead of schedule.

• The picture shows a view from a dredge as it works in the sound.

Two dredges are cutting channels through the Success and Parmelia banks so that big oil tankers can enter the sound.

## *Power Source*

This is how the South Fremantle power station looks from the air today. ▶

When completed, it will have a net capacity of 100,000 kilowatts, but at present it is on 75,000 kilowatts.

The basin in the foreground provides for the condensing water intake, which requires 5,000,000 gallons an hour when

water intake, which requires 5,000,000 gallons an hour when the station is at full load.

The condensing water outlet for the warm water is on the right of the basin. The white streak shows where it gushes into the cold sea water.

