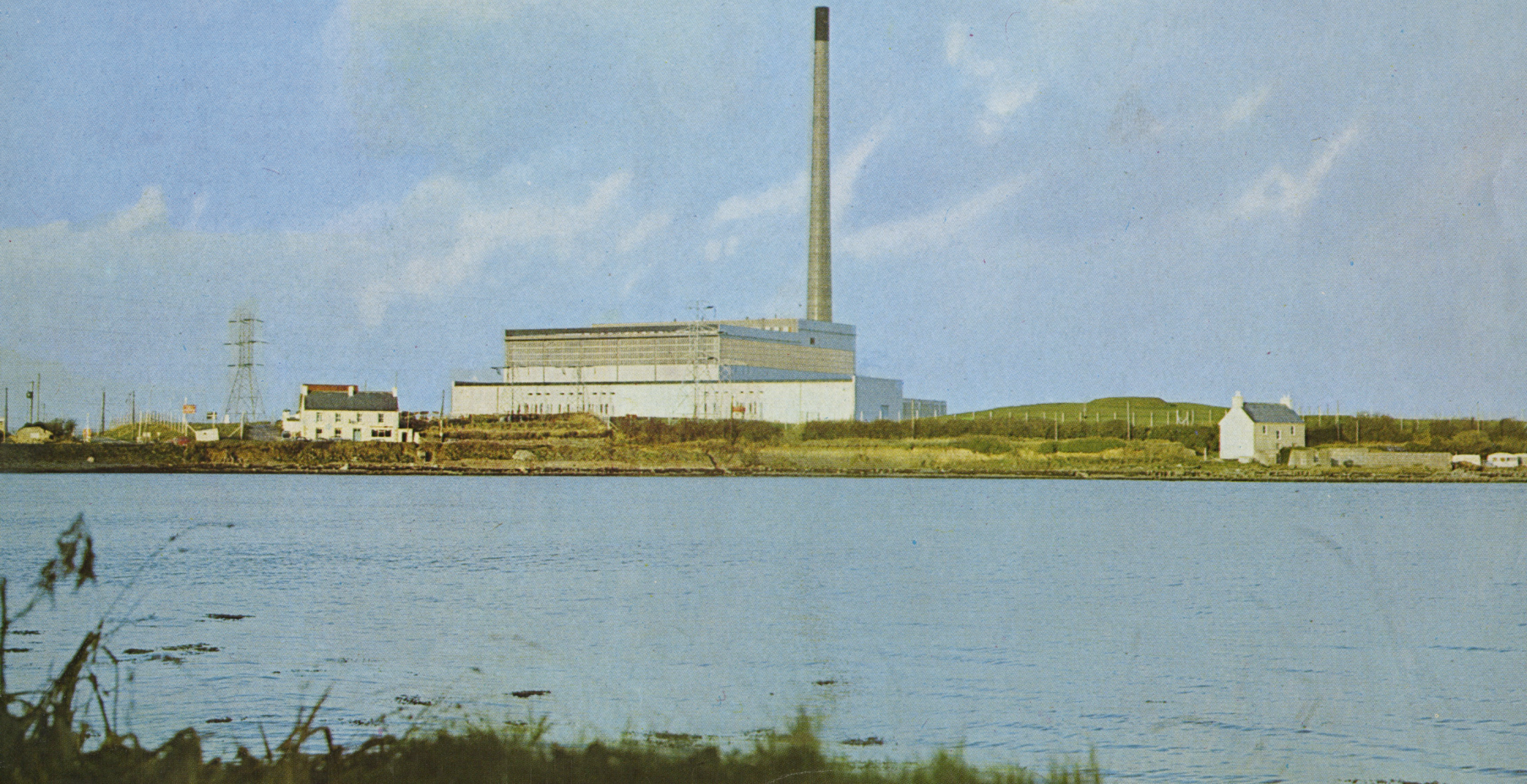
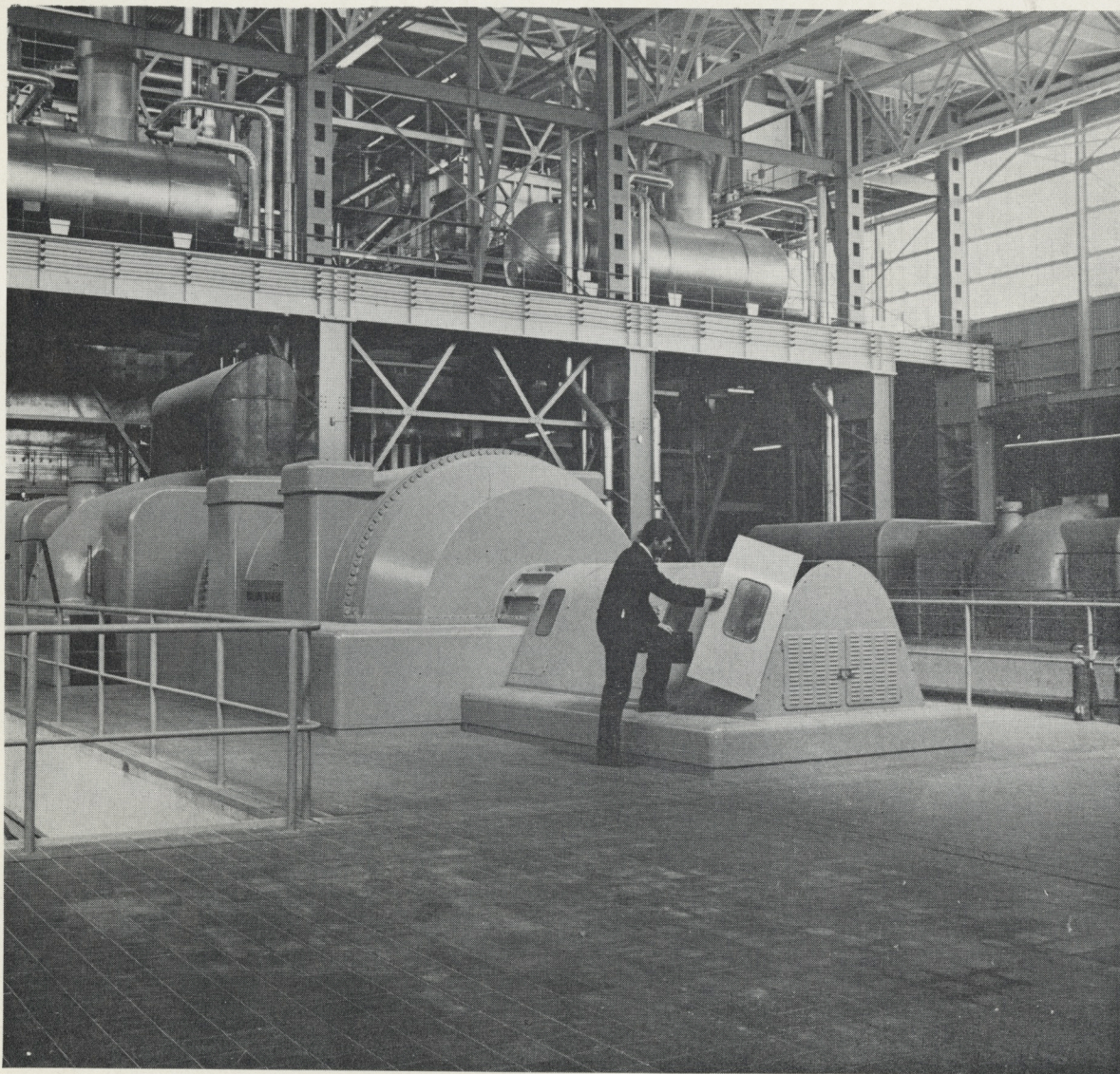


Tarbert Generating Station

COUNTY KERRY





The generation hall at Tarbert Station which at present houses two 60,000 kW generating units. The station was designed in such a way that it is capable of extension to more than four times its present capacity.

The Station

The ESB Generating Station at Tarbert in County Kerry was officially opened on June 19th, 1970 by the Taoiseach, Mr. Jack Lynch, T.D. It is the 27th generating station on the ESB system.

Construction of this station commenced in October 1966 and the first 60,000 kilowatt unit went into service in September 1969. The second unit, also 60,000 kilowatts, was commissioned in December 1969. These completed the first stage of development. Work will commence shortly on the second stage which will comprise a 250,000 kilowatt generating unit due for commissioning in 1975. It is proposed to commission a further 250,000 kilowatt unit in 1977. On completion of this third stage of development the station capacity will be 620,000 kilowatts, capable of producing approximately 3,500 million units of electricity per year. The capital investment in the initial development totalled £7.5 million and when the second 250,000 kilowatt stage has been completed the total capital value will be of the order of £31 million. During the first construction, a peak labour force of 450 men was employed on the site.

Tarbert is the first oil-fired station built by the ESB on the Shannon or its estuary. The other stations on the Shannon are: Arigna which has a capacity of 15,000 kilowatts and is fired on native coal; Lanesborough with a capacity of 40,000 kilowatts is fired on milled peat; Shannonbridge which has an existing capacity of 40,000 kilowatts, is to be extended to double its present size, also uses milled peat and of course, there is Ardnacrusha, the original Shannon Scheme, which has a capacity of 85,000 kilowatts.

Fuel Storage and Handling

The fuel used at Tarbert is a heavy residual fuel oil which is an oil refinery by-product. The oil is delivered to the station's own 300-foot jetty and pumped at almost 500,000 gallons per hour into the storage tanks which have a capacity of 18 million gallons. This storage capacity is sufficient to maintain full station output for about 14 weeks.

For day to day operation, the oil is moved from any nominated main storage tank to the boilers, by remote control from the central thermal control room.

The Boilers

Each of the two M.A.N. boilers can produce 517,000 lbs. of steam per hour at a pressure of 1,190 lbs. per square inch and at a temperature of 960°F. They are of a radiant furnace, two pass, natural circulation single drum design.

Thermal Control

Starting, load control and shutdown of boiler and turbine plant can be carried out from the thermal control room, by means of the latest electronic equipment. Auxiliaries, such as fans, pumps and standby equipment are also operated from this location and full data on the minute-by-minute operations are transmitted to this location to ensure maximum efficiency and reliability.

Generation

Steam is fed into two 60,000 kilowatt Brown Boveri turbo-alternator sets. The steam drives the turbines which are coupled to the generator units which produce electricity. These units are amongst the most modern of their kind in operation to-day.

Despatch

The station generates electricity at 10,000 volts, but this is 'stepped up' in the station's own transformers to 110,000 volts before being delivered into the national network. This is done, because it is more economical to transmit power over long distances at high, rather than low voltages.



The control room at Tarbert. Power from the station is fed into the national grid. Electricity is generated at 10,000 volts and 'stepped up' to 110,000 volts at the transformers.

One of many

The Tarbert Oil-Fired Generating Station is the 27th to be built by the ESB in this country. Of the total 9 are hydro, 5 operate on milled peat, 6 on sod peat, 1 on native coal, 6 on coal or oil.

HYDRO STATIONS		Capacity Mw.	STEAM STATIONS		Capacity Mw.
River Shannon:	Ardnacrusha	85	Allenwood (Co. Kildare)		
River Liffey:	Pollaphuca	30	<i>sod peat</i>		40
	Golden Falls	4	Ferbane (Co. Offaly)		
	Leixlip	4	<i>milled peat</i>		90
River Erne:	Cathleen's Fall	45	Lanesborough (Co. Longford)		
	Cliff	20	<i>sod and milled peat</i>		60
River Lee:	Inniscarra	19	Rhode (Co. Offaly)		
	Carrigadrohid	8	<i>milled peat</i>		80
River Clady:	Clady	4	Bellacorick (Co. Mayo)		
		219	<i>milled peat</i>		40
			Shannonbridge (Co. Offaly)		
			<i>milled peat</i>		40
STEAM STATIONS	Capacity Mw.		Arigna (Co. Roscommon)		
Pigeon House (Dublin City)		90	<i>native coal</i>		15
<i>coal/oil</i>			Miltown-Malbay (Co. Clare)		
North Wall (Dublin City)		48	<i>sod peat</i>		5
<i>oil</i>			Screeb (Co. Galway)		
Ringsend (Dublin City)		270	<i>sod peat</i>		5
<i>coal/oil</i>			Cahirciveen (Co. Kerry)		
Marina (Cork City)		120	<i>sod peat</i>		5
<i>coal/oil</i>			Gweedore (Co. Donegal)		
Great Island (Co. Wexford)		120	<i>sod peat</i>		5
<i>oil</i>					
Portarlinton (Co. Laois)		38			
<i>sod peat</i>					
Tarbert (Co. Kerry)		120			
<i>oil</i>					
			Total Capacity,		
			Hydro and Steam		1,410 Mw.

The Station seen from the jetty which can accommodate tankers of 50,000 tons.

