

# NO.4 SUBSTATION, PERTH



PLACE INFORMATION	
Place name	No.4 Substation
Other names	Sub Station Electricity Substation
Place type	Individual building or group

HERITAGE LISTING	
inHerit ID:	17629, 25118
State Heritage Register:	
Other Listing:	Municipal Inventory Adopted 12 Sep 2006

SITE LOCATION	
Street address	31 Stuart St
Locality	Perth
Survey	LOT: 1 D/P: 6946
Vol/folio	1069/507
Reserve	—

SIGNIFICANCE	
Level of significance	<b>Exceptional</b> Essential to the heritage of the area. Rare or outstanding example. Consider for nomination for State Register of Heritage Places if not already included.
Management category	<b>Category 1</b> The place should be retained and conserved. Any alterations or extensions should reinforce the significance of the place and be in accordance with a Conservation Plan if one is in place.
Statement of significance	<p>The place is a good example of a utilitarian structure designed in the Federation Warehouse style to fit within city streetscapes, an approach to constructing and siting industrial buildings that is no longer practised.</p> <p>This building is one of four non-adjacent two-storey red brick buildings is a rare example of a complete set of early twentieth-century electricity substations relating to the initial development of an electricity network in Western Australia.</p> <p>This is one of the four buildings constructed by Perth City Council to operate as the main line substations in conjunction with the State Government's East Perth Power Station (1916), the first centralised electricity supply in Perth, and this one (No.4 Substation, Stuart Street) continued to operate as an electricity substation into the twenty-first century.</p> <p>The construction of the substations and installation of the plant was supervised by international company Merz &amp; McLellan, especially Charles McLellan, who advised the City of Perth and State Government regarding electricity production and was influential in the decision to centralise and to switch from direct to alternating current.</p>

SIGNIFICANCE	
<b>Statement of significance</b>	The building was designed by prominent and prolific Western Australian architect Jack Learmonth Ochiltree and is a good example of his design approach to functional buildings.
	The building has high scientific value for its ability to contribute to the understanding of the development of power to the metropolitan region of Perth, especially No.4 Substation, Stuart Street, which retains some of its transformers and other machinery.

PLACE USE	
<b>Original use</b>	Governmental: Power Station
<b>Current use</b>	Vacant/Unused
<b>Other use</b>	

CONSTRUCTION DETAILS	
<b>Construction date</b>	1915
<b>Walls</b>	Brick Rendered Brick
<b>Roof</b>	Corrugated fibre cement sheeting
<b>Architectural Style</b>	Federation Warehouse
<b>Physical description</b>	<p>The sub-station is an imposing four storey red building capped with a hipped gambrel roof clad with corrugated iron.</p> <p>The ground floor has a strong blood and bandages pattern to visually anchor the main façade. The main façade is detailed with pilasters forming full height bays between which are recessed blind window openings, with rendered lintols and key stones. At either end of the sub-station is a two storey annexe, with bullseye detail, surmounted by a rendered loggia in an Interwar Chicagoesque style.</p>

CONSTRUCTION DETAILS	
<b>Condition</b>	Fair
<b>Integrity</b>	High
<b>Authenticity</b>	High

HISTORICAL INFORMATION
<p>Stuart Street was named after Perth City Councillor Stuart of the Governor Broome Hotel in William Street, Perth. However, in Wisers' Post Office Directories for 1916 it was spelt as 'Stewart'. The Stuart Street Electricity sub-station was constructed between 1914 and 1916 as the northern sub-station on the 6,000-volt ring main cable. It was known as the Perth City Council Electricity Sub-Station No. 4. The first electricity power station was constructed at East Perth by the Perth Electric Tramway Limited to supply power for the City's tram system.</p>

In 1912 the State Government took over the tramway system and the power station. A new power station was constructed at East Perth and was operational in December 1916. This power station along Summers Street is still extant today, however was de-commissioned in 1981 and is still waiting on a new use. The ring main cable ran from the power station through the centre of the city to West Perth, with three sub-stations along the route, and then zig-zagged its way north-east to the City of Perth municipal yard on Stuart Street, on the edge of Lake Henderson (Robertson Park), where the northern sub-station was sited before running almost due-east back to the power station. The sub-stations converted the high-voltage alternating current generated by the power station to direct current. All lines connecting to the ring main did so at the sub-stations.

### HISTORICAL INFORMATION

The sub-stations on the ring main were the property of the City of Perth at this time, while the tramway sub-stations were the property of the Railways, Tramways and Electricity Supply Department. The ring main was designed by Mertz and McLellan and was installed by Callenders Cable & Construction Company Ltd. It is not certain if Callenders constructed the sub-stations or if that work was put out to tender. The West Australian power system ran on 254 volts, and this was not reduced to 240 volts until the 1940s, at which time also, conversion to alternating power for the end-user was undertaken, resulting in the replacement of large amounts of equipment within the sub-stations.

In 1949, the last year of Wise's Post Office Directories, Sub-Station No.4 was listed in the block between Palmerston and Fitzgerald streets along with Westralian Farmers Co-op Ltd (Wescobee), Dairy Farmers' Co-op Co Ltd and Pascomi's. Wescobee Honey (as it was known), the Co-op (dairy produce merchants) and Pascomi's (milk vendors) were all long-term businesses and very well known in the area.

The Western Australian electricity system was until recently owned and controlled by Western Power Corporation, formerly known as the State Electricity Commission.

In 2008 Synergy was WA's largest energy retailer with around 890,000 customers in the south-west of the State. In recent years, Western Power have removed the remnant plant equipment in the building in preparation for the sale of the property.

Aerial photographs from the mid 20th century onwards indicate that the form and extent of the building have changed little since that time.

### HISTORICAL INFORMATION

<b>Historic theme</b>	Peopling WA: Demographic Development	
<b>Associations</b>	Jack Learmonth Ochiltree Merz & McLellan	Architect Engineers
<b>Sources</b>	Municipal Heritage Inventory 2006 Landgate Aerial photographs 1953-2024. P17629 No.4 Sub Station, 31 Stuart St Perth Archival Record prepared for Western Power by Hocking Heritage Studio. July 2017.	

ADDITIONAL PHOTOGRAPHS

