



BRIEFING ON THE PROCEDURES FOR APPLICATION FOR ELECTRICITY SUPPLY IN THE NEW ELECTRICITY MARKET

- ◆ CHECKING BY MSSL ON CONSUMERS' ELECTRICAL INSTALLATIONS THAT ARE EXEMPTED FROM INSTALLATION LICENSING

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AGENDA

- ◆ Objective
- ◆ Types of Installations required checking by MSSL
- ◆ Inspection of Small Electrical Installation
- ◆ Inspection of Large Domestic Electrical Installation
- ◆ Sample Unit Inspection of Electrical Installations in Private Residential Development
- ◆ Inspection and Pre-turn-on of HDB Residential Units
- ◆ Inspection of Bulk Replacement of Meterboards



OBJECTIVE

- ◆ To familiarize with the procedures that MSSL will follow in checking on consumers' electrical installations that are exempted from installation licensing by the EMA.

TYPES OF INSTALLATIONS REQUIRED CHECKING BY MSSL

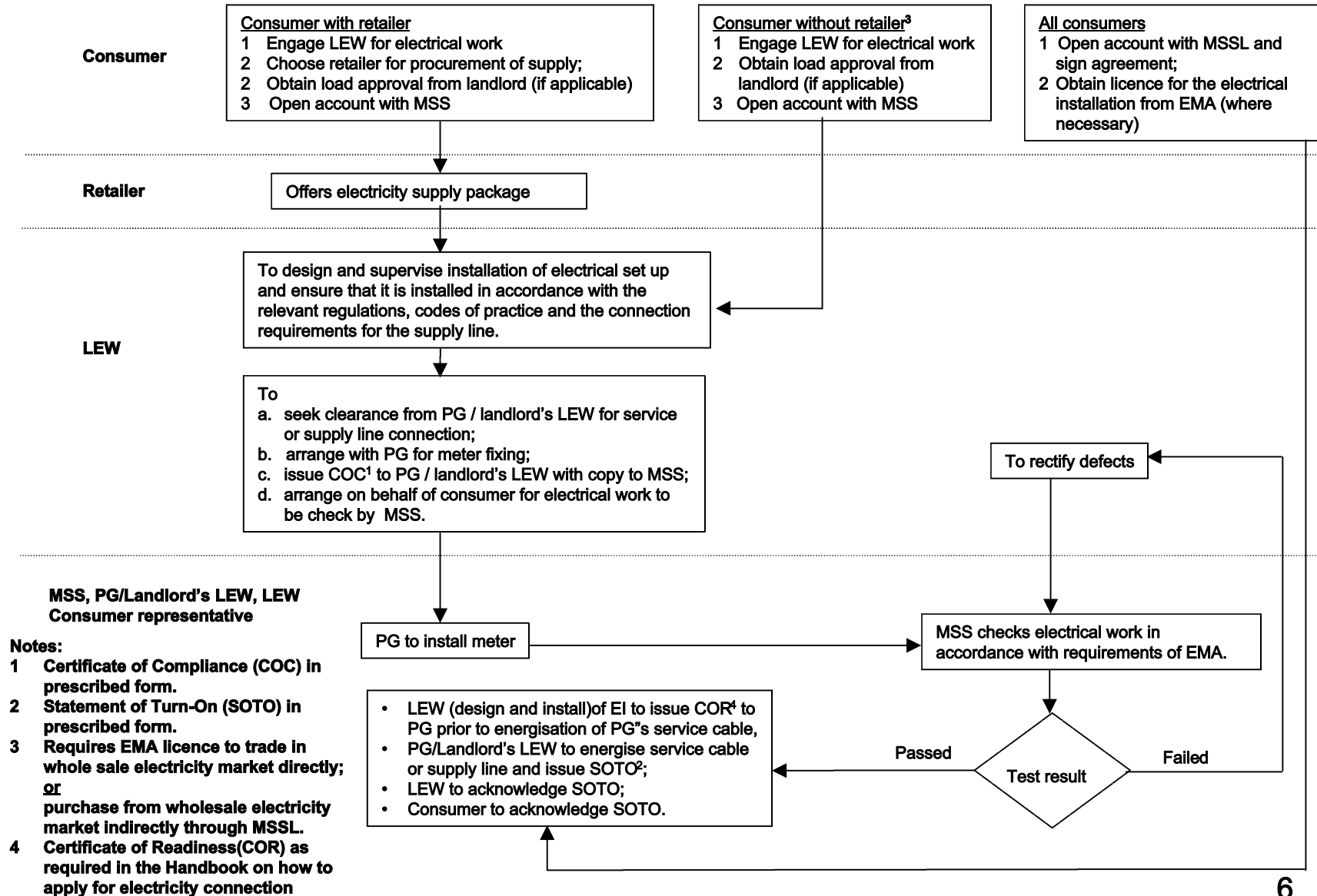
- ◆ Small Electrical Installation
(supply capacity not exceeding 45 kVA)
- ◆ Large Domestic Electrical Installation
(supply capacity exceeding 45 kVA)
- ◆ Residential units in Condominium /
Conventional Housing Development



TYPES OF INSTALLATIONS REQUIRED CHECKING BY MSSL

- ◆ HDB Residential Units
- ◆ Bulk Replacement of Meterboards in multi-tenanted Building

Proposed Procedures For Supply To Electrical Installations Exempted From Licensing





INSPECTION OF SMALL ELECTRICAL INSTALLATION (supply capacity $\leq 45\text{kVA}$)

- ◆ Customer opens an utilities account with PSL;
- ◆ LEW submits application for inspection of electrical installation (form CS5) and Certificate of Compliance (COC) to apply for an inspection appointment with Supply Application (SA) Section of PSL;
- ◆ SA Section arranges and issues inspection appt letter to the LEW;
- ◆ Meter Section of PG to install meter one day before the inspection date;



INSPECTION OF SMALL ELECTRICAL INSTALLATION (supply capacity $\leq 45\text{kVA}$)

- ◆ PSL testers bring along the meters that are not installed by Meter Section and attend to the inspection appointments;
- ◆ Inspection of electrical installation is carried out in accordance with the requirements of EMA;
- ◆ For direct PG connection, LEW submits Certificate of Readiness (COR) to PSL tester on site;
- ◆ PSL or LEW to turn-on electricity supply if the inspection by PSL is 'Passed';



INSPECTION OF SMALL ELECTRICAL INSTALLATION (supply capacity $\leq 45\text{kVA}$)

- ◆ PSL (on behalf of PG) or LEW issues “Statement of Turn-on of Electricity” and acknowledged by the LEW and applicant or his representative;
- ◆ If the inspection result is ‘Failed’, LEW to rectify defects, re-submit COC, pay a fee and apply for re-inspection appt;
- ◆ A copy of the PSL inspection report is given to the LEW and applicant or his representative on site with a copy sent to EMA.

INSPECTION OF LARGE DOMESTIC ELECTRICAL INSTALLATION (supply capacity > 45kVA)

- ◆ LEW submits application for service connection if directly connected to PG's network;
- ◆ LEW installs electrical installation in accordance with the single-line drawing (SLD)
- ◆ Customer opens an utilities account with PSL;
- ◆ LEW submits application form CS5, COC, Form E (Certificate of fitness of residential unit) and SLD to make inspection & turn-on appt with Installation Section of PSL;

INSPECTION OF LARGE DOMESTIC ELECTRICAL INSTALLATION (supply capacity > 45kVA)

- ◆ LEW also to submit Form CS11 (Declaration of the earthing system) and equipment test reports if applicable;
- ◆ Installation Section check documents and issue turn-on appointment letter, if in order;
- ◆ LEW arranges with Meter Section of PG for fixing of meter;
- ◆ Meter Section installs meters at least one day before the turn-on appt date;

INSPECTION OF LARGE DOMESTIC ELECTRICAL INSTALLATION (supply capacity > 45kVA)

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- ◆ On the appt date, LEW submits COR to PG's project officer on site (for direct PG connection);
- ◆ PSL staff carries out inspection of customer's electrical installation in accordance with the requirement of EMA;
- ◆ PG or Landlord's LEW to energise the service connection and LEW to turn-on the electricity supply if the inspection by PSL is "Passed";

INSPECTION OF LARGE DOMESTIC ELECTRICAL INSTALLATION (supply capacity > 45kVA)

- ◆ PG or Landlord's LEW issues a "Statement of Turn-on of Electricity" and acknowledged by the LEW and applicant or his representative;
- ◆ If the inspection result is failed, LEW to rectify defects, re-submit COC & Form E and pay a fee for re-inspection & turn-on appt;
- ◆ A copy of the PSL inspection report is given to the LEW and applicant or his representative on site with a copy sent to EMA.

SAMPLE UNIT INSPECTION OF ELECTRICAL INSTALLATIONS IN PRIVATE RESIDENTIAL DEVELOPMENT



- ◆ After main intake switchboard is energised, landlord's LEW to turn-on supply to the outgoing circuits and downstream switchboards;
- ◆ LEW carries out inspection & testing of all residential units and certifies Form E;
- ◆ LEW submits Form E, as-built SLD and a list of official addresses for the units to make appt for sample unit inspection at Installation Section;

SAMPLE UNIT INSPECTION OF ELECTRICAL INSTALLATIONS IN PRIVATE RESIDENTIAL DEVELOPMENT



- ◆ Installation Section notifies Meter Section of PG to conduct separate inspection on meter compartments set-up;
- ◆ PSL staff conducts checking of sample units selected in the presence of LEW;
- ◆ After verifying an adequate number of sample units to be in order and Meter Section has no objection to the meter compartments set-up, PSL notifies Meter Section to bulk fix meters;

SAMPLE UNIT INSPECTION OF ELECTRICAL INSTALLATIONS IN PRIVATE RESIDENTIAL DEVELOPMENT

- ◆ Meter Section fixes the meters for all the residential units in the development;
- ◆ After meters installed, LEW submits COC to Installation Section to make appt for inspection & pre-turn-on of supply to individual unit meterboard;
- ◆ Upon successful inspection of each residential unit, landlord's LEW energises the incoming MCB at meterboards and issues "Statement of Turn-on of Electricity" and acknowledged by the LEW & developer;

SAMPLE UNIT INSPECTION OF ELECTRICAL INSTALLATIONS IN PRIVATE RESIDENTIAL DEVELOPMENT



- ◆ If there are violations found which cannot be rectified on site, PSL staff will issue a failure report for the LEW to rectify and make appt for re-inspection of those units fail to pre-turn-on. Re-inspection fee is payable to PSL;
- ◆ Turn-on of electricity supply to individual residential unit in the development will only be carried out after the owner has opened an utilities account with PSL.



INSPECTION AND PRE-TURN-ON OF HDB RESIDENTIAL UNITS

- ◆ LEW carries out inspection & testing of all residential units in the block and certifies Form E;
- ◆ LEW submits COC, Form E and SLD of each premises type to HDB for certification;
- ◆ After testing, HDB submits certification letter together with COC, Form E and SLD issued by the LEW to make appt for inspection & pre-turn-on at Installation Section;



INSPECTION AND PRE-TURN-ON OF HDB RESIDENTIAL UNITS

- ◆ HDB to arrange with Meter Section of PG to bulk fix meters to all residential units in the block;
- ◆ On the appt date, PSL staff will select a unit from each premises type for checking;
- ◆ After checking is passed for the selected units, inspection will be carried out to all units in the block;
- ◆ Upon successful inspection of each unit, electricity supply is turn-on to the unit DB;

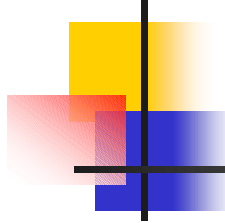


INSPECTION AND PRE-TURN-ON OF HDB RESIDENTIAL UNITS

- ◆ Landlord's LEW issues "Statement of Turn-on of Electricity" for each unit and acknowledged by the LEW and HDB;
- ◆ PSL staff provide a booklet and display caution sticker at each unit DB for guidance to the owner to check the electrical installation before use;
- ◆ If there are violations found which cannot be rectified on site, PSL staff issues a failure report for the LEW to rectify defects and make appt for re-inspection and pre-turn-on for those units fail to turn-on. Re-inspection fee is payable.

INSPECTION OF BULK REPLACEMENT OF METERBOARDS

- ◆ LEW submits application to Supply Application Section for bulk replacement of meterboards in multi-tenanted building;
- ◆ LEW submit meterboard layout plans to Meter Section of PG for approval;
- ◆ LEW obtains permission from PSL to break meter terminal seal and carries out bulk replacement of meterboards;
- ◆ LEW to inspect & test the meterboards and submain cables replaced and certify Form F;



INSPECTION OF BULK REPLACEMENT OF METERBOARDS

- ◆ LEW submits Form F and PG's approval letter of meterboard layout plans to Installation Section to make appt for inspection of bulk replacement of meterboards;
- ◆ Inspection appt is made if documents are in order;
- ◆ On the appt date, PSL staff will check the following items in the presence of LEW;

INSPECTION OF BULK REPLACEMENT OF METERBOARDS

- ❖ visual inspection of meterboard set-up
- ❖ meter number and unit address are tally with meter listing in PSL's computer records
- ❖ meter rotation is correct
- ❖ meters are not transposed with the neighboring units
- ❖ polarity of one SSO inside the unit is correct (sample check for 10% of units)
- ◆ PSL staff re-seals all meter terminals after inspection;
- ◆ A completion inspection letter will be issued to the LEW and Landlord/MCST.

CERTIFICATE OF READINESS

FOR THE ENERGISATION OF SERVICE CONNECTION

Name of Customer Installation: _____
Address: _____
Customer Installation Licence No/Expiry Date: _____
Connection Voltage: _____
Approved Load: _____
Name of Connection Cable(s): _____
Owned by Connection Applicant (Yes / No) _____
MSS Account No: _____
Name of Retailer: _____

Certification By LEW

I, _____ (name) the undersigned LEW, hereby certify that the service connection*, the equipment and works at the above installation (Licence No: _____) are now ready and fit for energisation with effect from the date and time specified below.

Date: _____

Time: _____

I certify that:

- a. protection details are as follows:
 - CT Ratio: _____ /1A or 5A*
 - Main 1 Type: _____
 - Main 2 Type*: _____
 - O/C Type: _____ Setting: _____
 - E/F Type: _____ Setting: _____
- b. the switching equipment/transformer/service connection* and all associated apparatus related to the service connection have been tested and checked by me and they have passed the pre-commissioning checks and tests in compliance with the Market Rules, Transmission Code, Handbook on How to Apply for Electricity Connection, Connection Agreement, all other applicable standards, and the associated protection systems have all been proven effective (the main protection schemes have been commissioned by load simulation method on date: _____).
- c. all necessary meters have been installed.
- d. *for multi-metered installation with the exception of HDB residential installation, the metering scheme has been designed as master/sub-metering scheme.

*Delete where not applicable

Application No. _____

To: Manager, Installation Branch
 SP Services Ltd
 111 Somerset Road #06-01
 Singapore Power Building
 Singapore 238164

PROJECT: _____

AT APARTMENT BLOCK No. _____ STREET NAME: _____

DATE OF INSPECTION: _____ POSTAL DISTRICT: _____

Type/Total No. of Units	/(units)	/(units)
Others	MCB Rating	
	MCB Type (Before & after Revenue Meter)	
	Service Cable Size	
	RCCB Rating / Sensitivity	
Details of Electrical Installation	Cooker / Oven Point	
	Water Heater Point	
	15A Socket Outlet	
	13A Socket Outlet	
	Fan Point	
	Lamp Point	
	20A isolator SPN	
	20A isolator TPN	
	30A isolator SPN	
	30A isolator TPN	
	Others	
Unit Nos.		

I have inspected and hereby certify that the electrical installation of the residential unit(s) comply with the Singapore Standard CP5 and the relevant Regulations.

 Signature/Name/Licence No. of Electrical Worker

**STATEMENT OF TURN-ON OF ELECTRICITY
[Regulation 5(4) of the Electricity (Electrical
Installations) Regulations 2002]**

ELECTRICITY SUPPLY TO _____
(Name of Applicant)

AT _____
(Address of Installation)

I acknowledge that the above-mentioned electrical installation has been checked by the market support services licensee. I have energised the supply line to the installation on _____ at _____.
(date) (time)

Name & Signature of person responsible for energisation of supply line **Licence No.** **Date**

I acknowledge that the supply line has been energised on the date and time indicated above.

Name & Signature of Applicant or his representatives **NRIC / Passport No.** **Date**

This form is applicable to electrical installation not exceeding 45 kVA, exempted from licensing and supplied from landlord's switchboard.

REF: E(EW&I)REG R5(3)

CERTIFICATION OF BULK SHIFTING/REPLACEMENT OF METERBOARDS IN MULTI-TENANTED BUILDING

Project Address: _____

I hereby certify that I have supervised the work on the above electrical installation on bulk shifting / replacement of meterboards. I confirm the electricity meters rotation, unit number labelling and meter wiring are in order. I also confirm the supply polarity at the tenant’s distribution board or at one of the switched socket outlet within the tenant’s premises is in order.

BLOCK No: _____

S/No	Floor	Unit No	Meter No	Meter Reading After Replacement of Meterboard	Meter Rotation Checked (tick as in order)	Polarity Check (tick as in order)	Date of Reading	Sample Checked (For Office Use)
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
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Name/Signature of Licensed Electrical Worker

Licence No.

CERTIFICATE OF COMPLIANCE
[Regulation 5(2) of the Electricity (Electrical Installations) Regulations 2002]

Particulars of Electrical Installation

Name of Consumer : _____

Address of Installation : _____

Electrical Installation Licence No. _____ MSS Account No. _____

Approved load & Supply Voltage: _____ kW _____ Volts

- Generator(s) Installed: Operated in parallel with PowerGrid's supply.
No. of generator: _____ Rating: _____ kVA
- Standby generator.
No. of generator: _____ Rating: _____ kVA
- Not applicable

Certification by Licensed Electrical Worker

I certify that the above-mentioned Electrical Installation complies with the requirements of the Electricity (Electrical Installations) Regulations 2003 and the Singapore Standards CP 5. I further certify that the technical requirements as stipulated by the person responsible for turning on the switchgear which controls the supply of electricity to the said electrical installation have been complied with.

I hereby request for the energisation of the supply line to the said Electrical Installation on _____ (date).

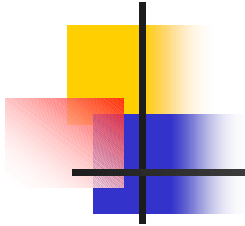
Name & Signature of LEW

Licence No.

Date

Copy to:

Market Support Services Licensee



The End

Thank You