UPGRADATION AND RENOVATION OF CESC METER BOARDS

INTRODUCTION

At the time of meter installation, the CESC representative connected the wires in a messy way from the busbar (Al cable) of the SVC to the energy meter and from the energy meter to the junction box. They also used fuse wire for each cut-out instead of an MCCB, and the busbar connection was made using an aluminum cable, while the meter connection wire was copper. This improper connection of Cu and Al cables on the busbar joint area sometimes resulted in fuse burnouts due to overload and overheating at the busbar and fuse joint area.

To maintain proper safety precautions, reduce breakdowns in electricity supply, and improve the aesthetic view, the CESC team has renovated the wiring system of all SVC meter boards to prevent incidents. The following upgrades have been implemented:

1. **250 A TPN MCCB Installation**:
    - Replaced wire-based fuse cut-outs with 250 A TPN MCCBs.
    - The MCCB will trip in case of overload or short circuit, allowing for easy reset and eliminating loose contact issues from wire-based fuse cut-outs.
    - Reduced maintenance time and enhanced electrical safety, with minimal DG load running time in such cases.

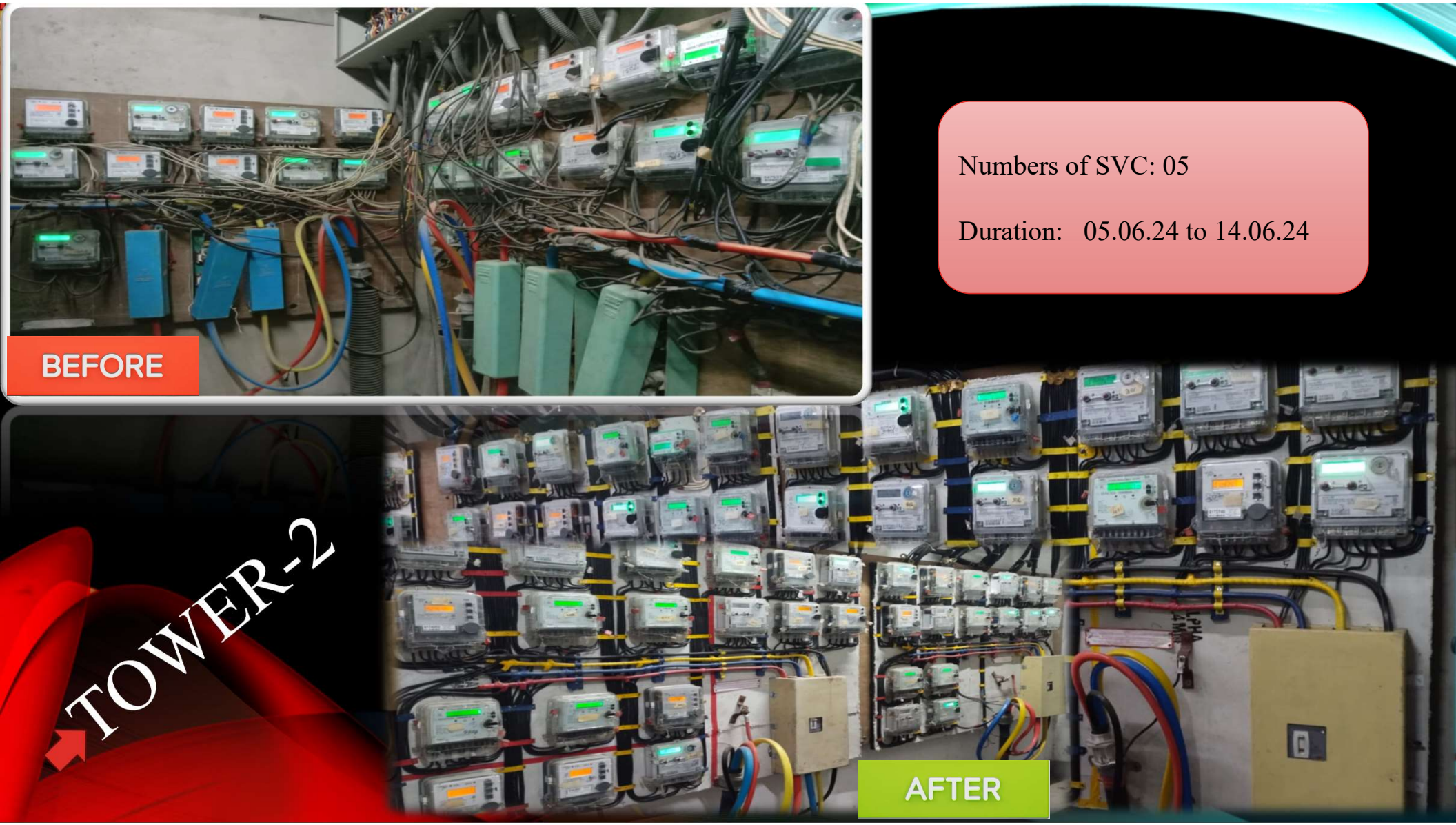
2. **Use of 4 Core X 70 sqmm Copper Cable**:
   - Upgraded the busbar from 4 core 185 sqmm aluminum cable to 4 core 70 sqmm copper cable.
   - Copper busbars reduce galvanic corrosion, which can cause cable overheating.

3. **Proper Wiring Management**:
   - All wires are now connected sequentially to maintain load balancing.
   - This reduces overload on any SVC, makes cable sequencing easy to identify, and improves the overall aesthetic of the wiring system.

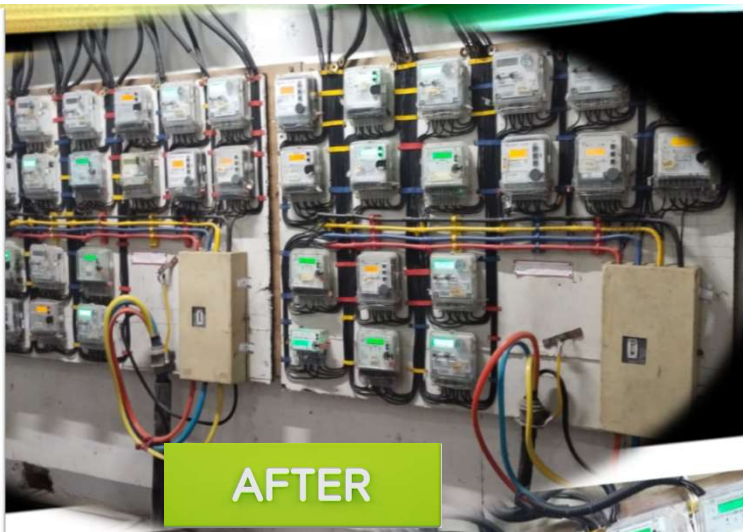
4. **Fire Safety Measures**:
   - Asbestos sheets have been fixed on the wooden board to reduce fire hazards in case of cable burnout.

These upgrades not only improve safety but also ensure a more reliable and efficient electricity supply. The thoughtful approach prevents incidents and enhances the performance of the electrical system.


BEFORE
AFTER
Numbers of SVC: 08
Duration: 26.07.24 to 12.08.24
TOWER-1
BEFORE
AFTER


BEFORE
Numbers of SVC: 05
Duration: 05.06.24 to 14.06.24
TOWER-2
AFTER

BEFORE

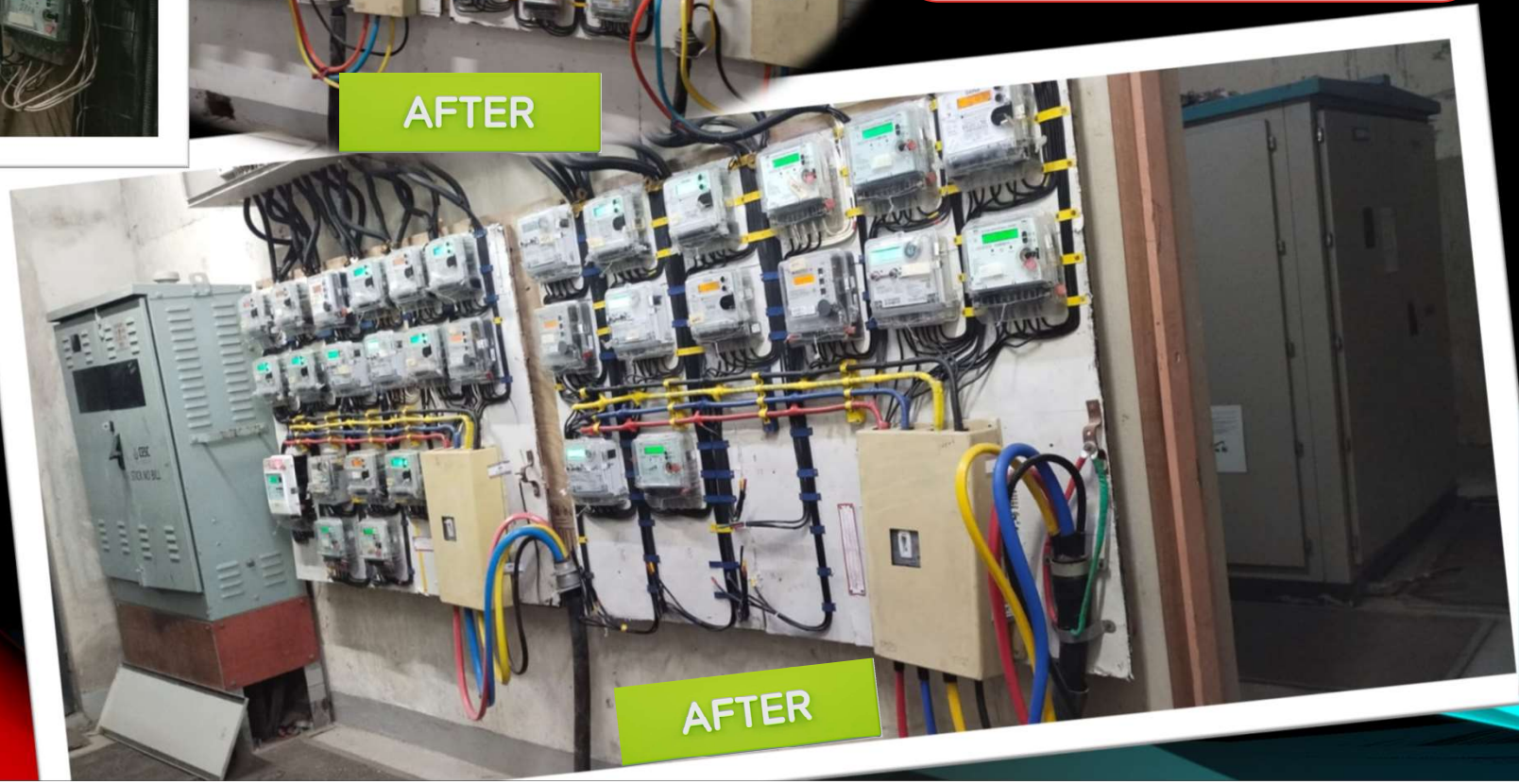


AFTER

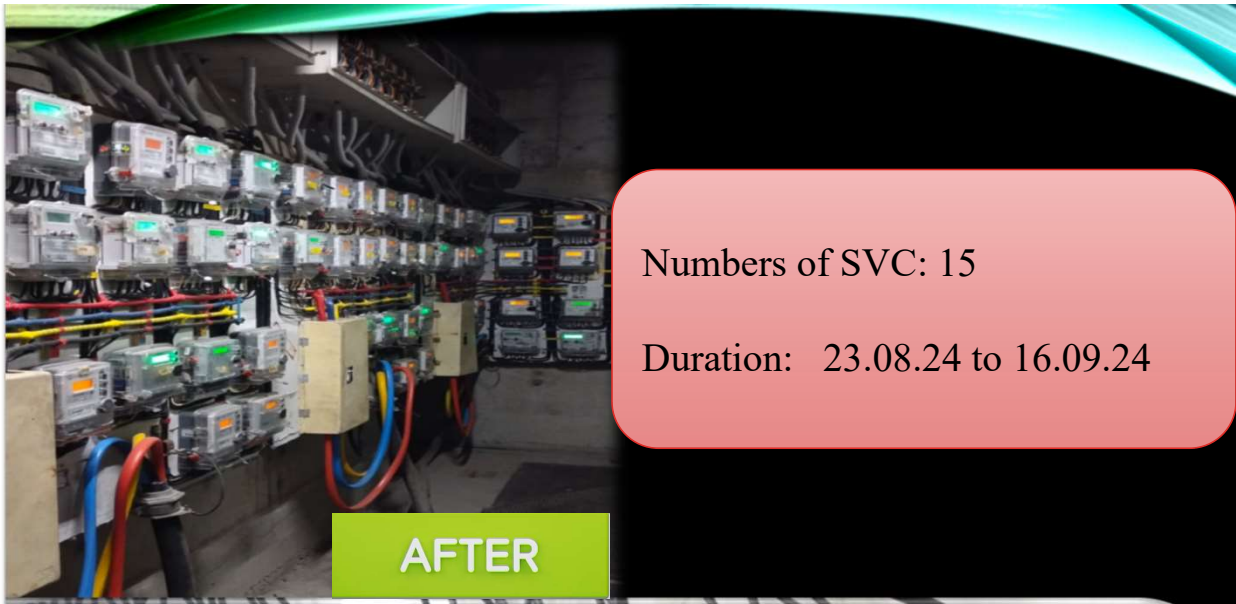
Numbers of SVC: 05

Duration: 10.07.24 to 17.07.24

TOWER-3



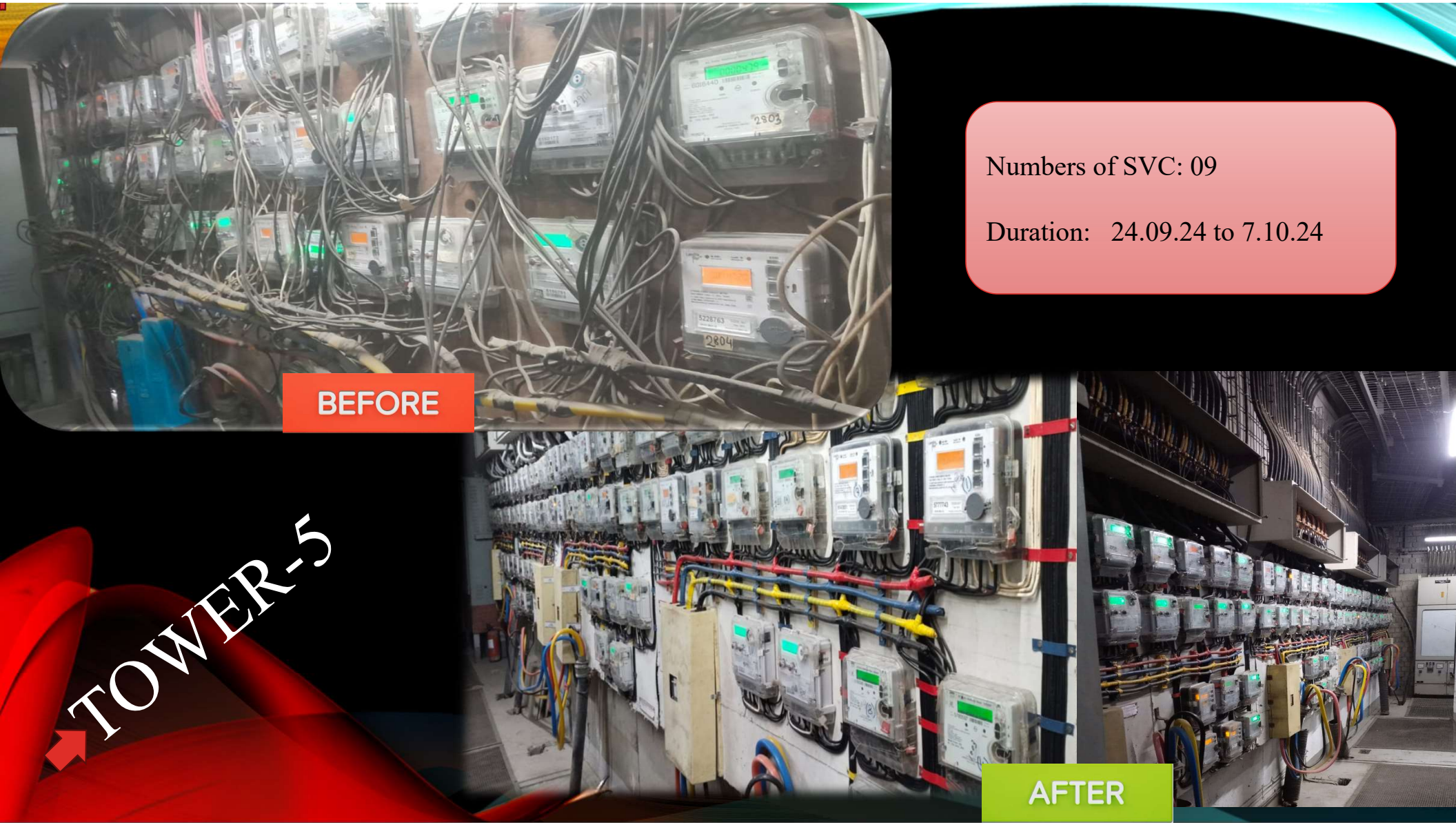
AFTER

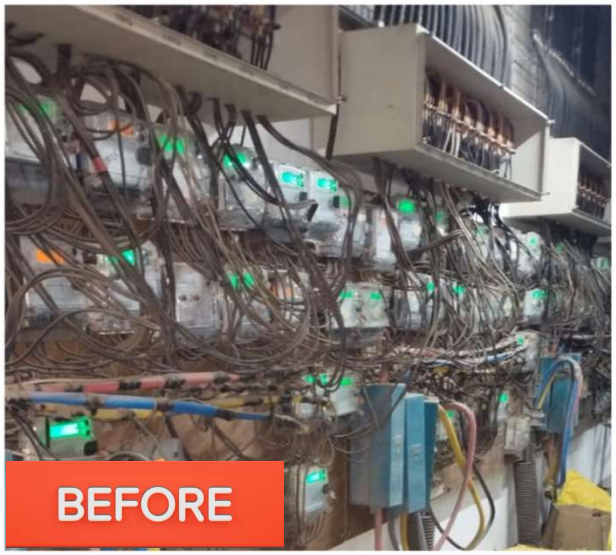


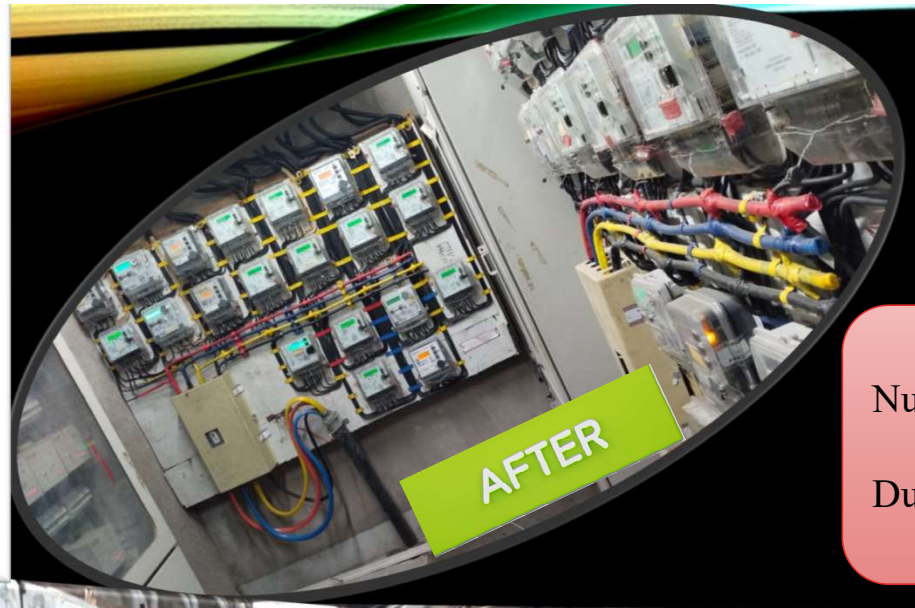
Numbers of SVC: 15

Duration: 23.08.24 to 16.09.24

TOWER-4


Numbers of SVC: 09
Duration: 24.09.24 to 7.10.24
BEFORE
TOWER-5
AFTER

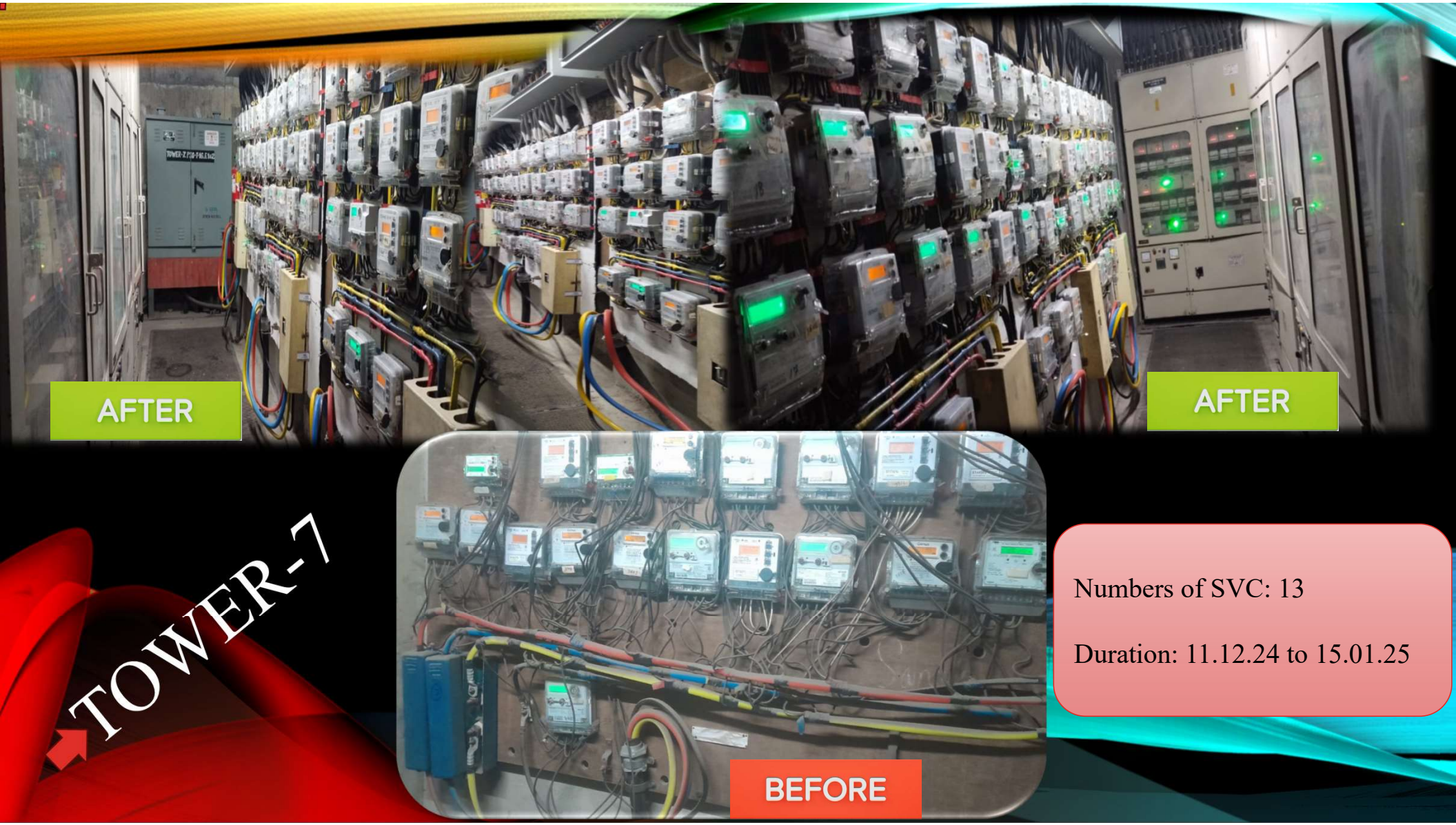




Numbers of SVC: 09

Duration: 25.11.24 to 05.12.24

TOWER-6


AFTER
AFTER
TOWER-7
BEFORE
Numbers of SVC: 13
Duration: 11.12.24 to 15.01.25


THANK YOU