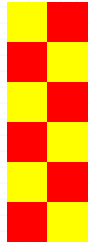




# **SCDF**

The Life Saving Force

*... for a safer Singapore*



# **Fire Statistics for 2018 & Case Studies**

*CPT Joel Ee*

*Senior Fire Investigator | Fire Investigation Unit | Operations Department*



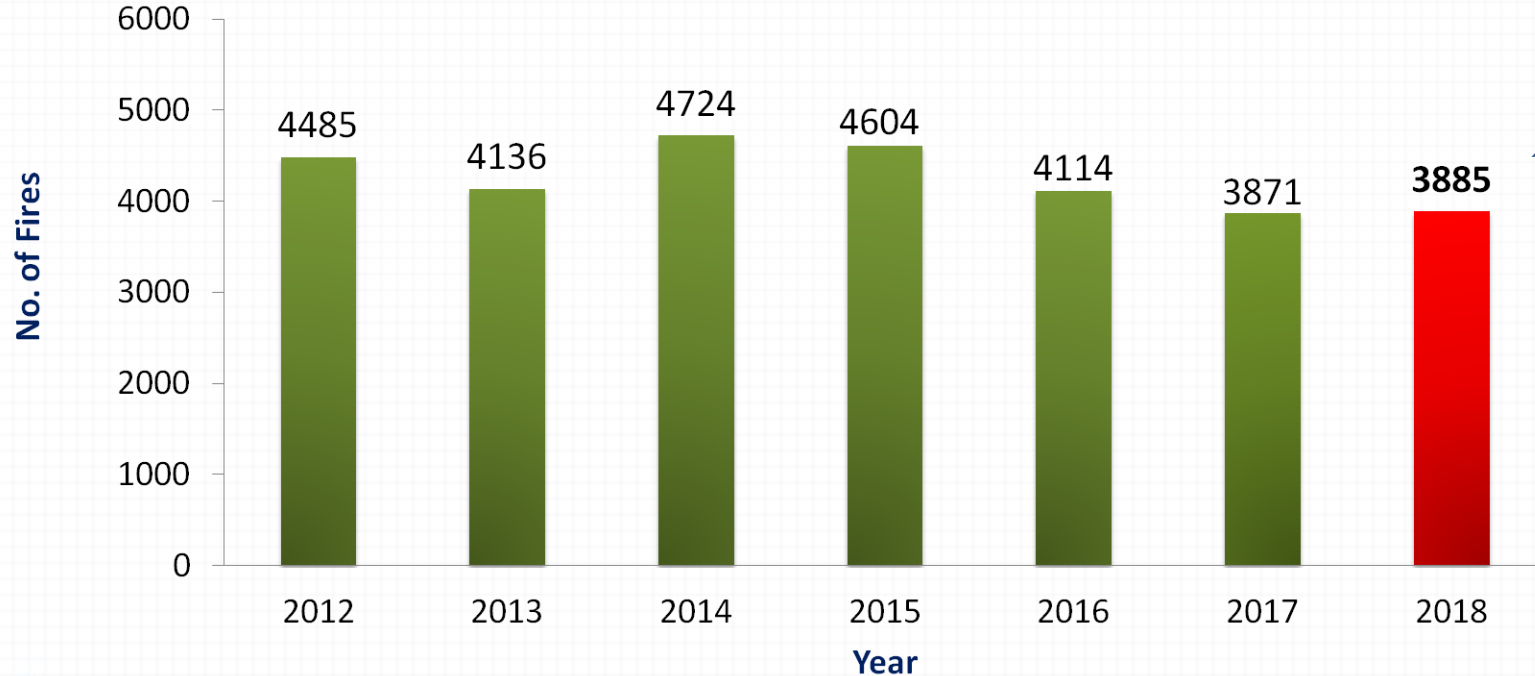
# SCOPE

- ❑ **Fire Statistics & Trends in Singapore (2018)**
  
- ❑ **Case Studies**
  - **Industrial Fire**
  - **Personal Mobility Device (PMD) Fires**
  
- ❑ **Safety Message**



# FIRE STATISTICS

## Total no. of Fires Responded to by SCDF

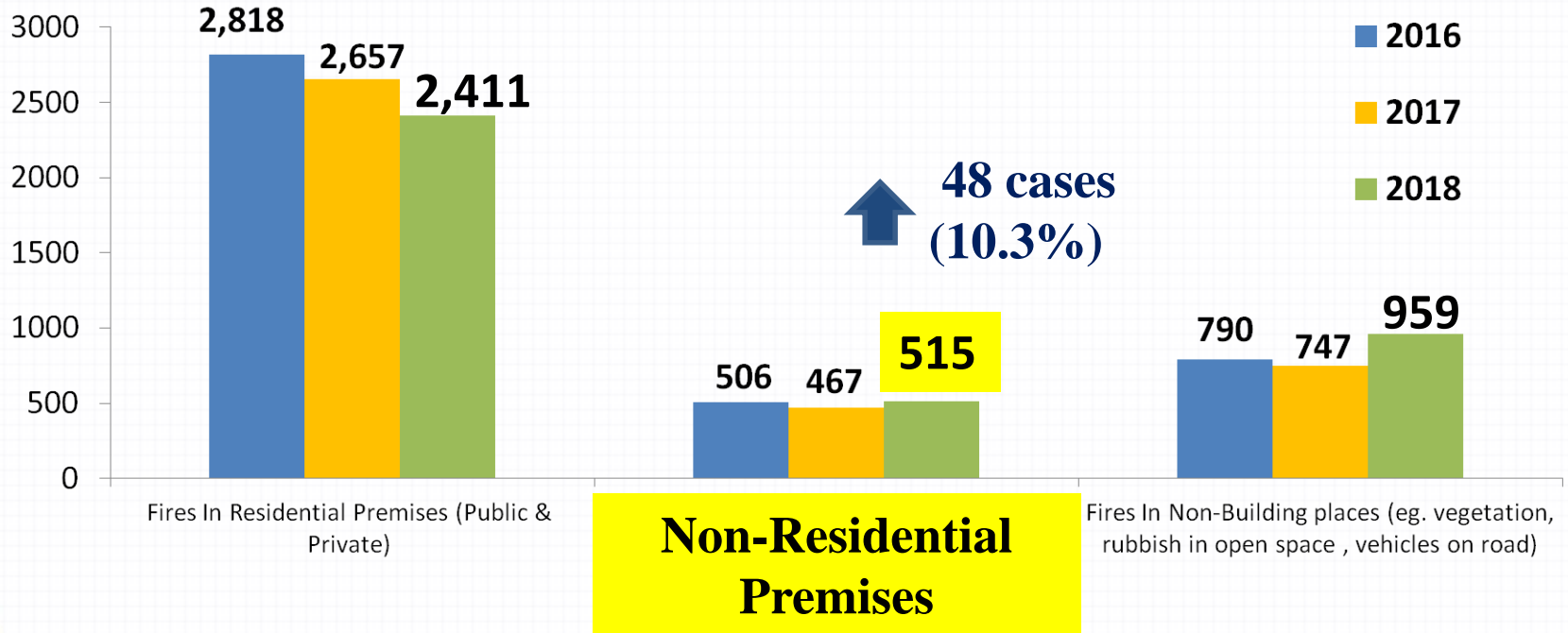


↑ 14 cases  
(0.4%)



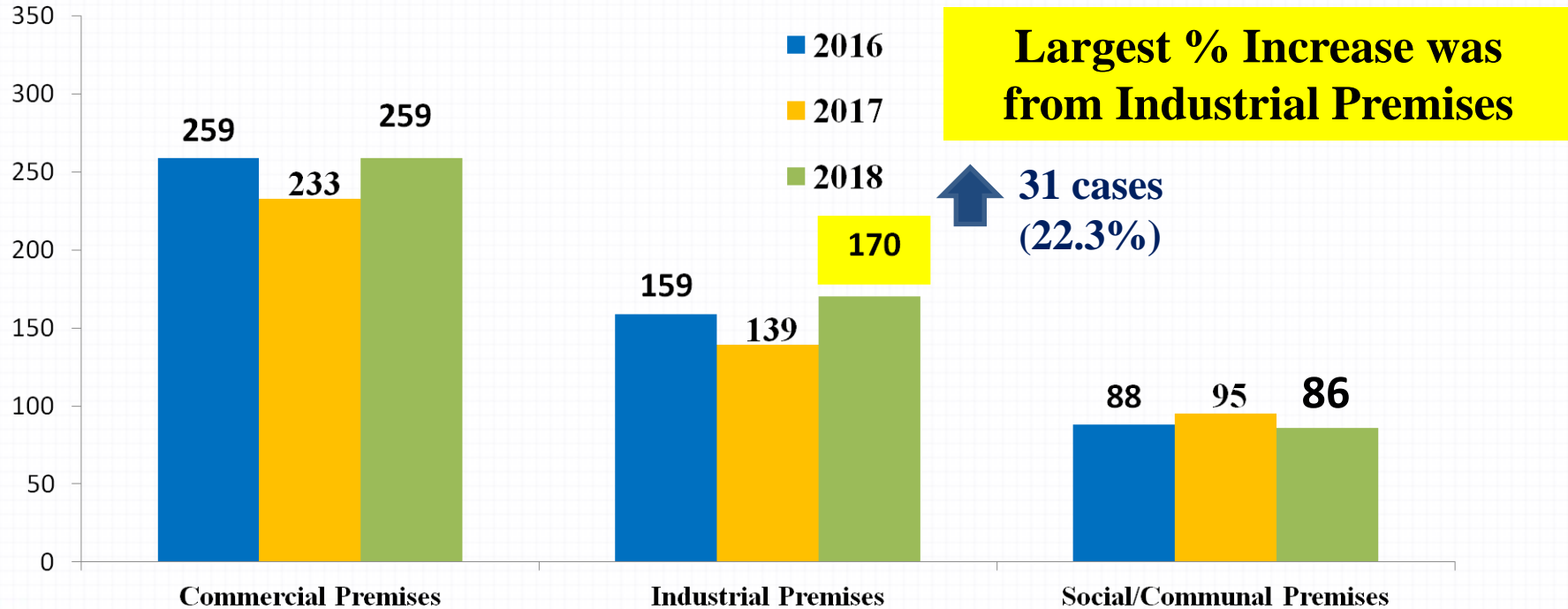
# FIRE STATISTICS

## Breakdown of Fires by Type of Premises



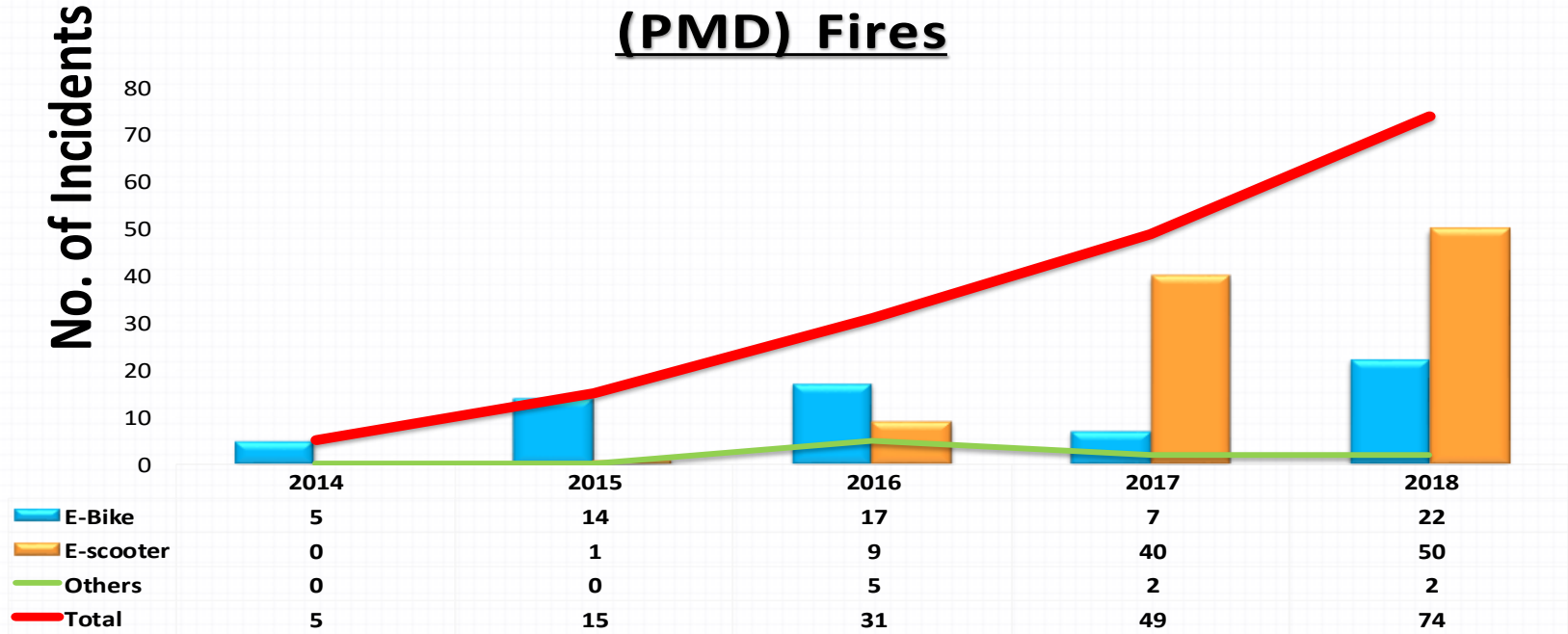
# FIRE STATISTICS

## Fires in Non-Residential Premises 2018



# Area of Concern

## Overall Trend of Public Mobility Device (PMD) Fires



# Safety Message

## LTA's adoption of UL2272 standard for PMDs

- At the moment UL2272 certification is the only standard to be certified for PMDs, there may be other public standards being adopted in the future.
- For more information, Google:

### LTA UL 2272

- Public Advice:

✓ Purchase PMD from reputable retailers with the appropriate certifications

 **Need to Register**

Examples of devices that do not need to be registered:



 **No Need to Register**



Personal mobility aids, such as mobility scooters and electric wheelchairs, are excluded

## UL2272 STANDARD FOR PERSONAL MOBILITY DEVICES (PMDs)

### WHY IS THE ADOPTION OF A DEVICE SAFETY STANDARD NECESSARY?

The number of fires caused by motorised PMDs has increased in the past few years, with more than 90 fire incidents involving PMDs since 2016. As PMDs only started gaining popularity in recent years, many of the motorised PMDs used do not conform to any reliable safety standards. The adoption of a safety device standard is therefore necessary to ensure the safe use of such devices.

LTA carefully studied the safety standards available and determined that the UL2272 standard is most suitable for the common types of motorised PMDs used in Singapore, such as electric scooters (e-scooters), self-balancing hoverboards and electric unicycles.

### What to look out for when purchasing a Personal Mobility Device (PMD)

1. Ensure the PMD complies to the [device criteria](#).
2. Check if the PMD is certified to the [UL2272 standard](#).
3. [Register](#) the PMD if it is an electric scooter.



# Safety Message

## Battery fires involving Personal Mobility Devices

The number of fires involving Personal Mobility Devices (PMDs), such as e-scooters, has been increasing in recent years. The impact and consequences of these fires can be severe.

Particularly, such devices that are being charged overnight in homes pose risks. A small fire can grow unnoticed and spread very quickly, resulting in casualties and damage to property.



An e-scooter that caught fire in a bedroom in Nov 2017, resulting in four casualties.

These fires are commonly started during the charging of battery or shortly after such charging is completed. Therefore, it is important to focus on proper battery usage and storage.

Let's play our part for a fire safe environment.

## Allow heat dissipation



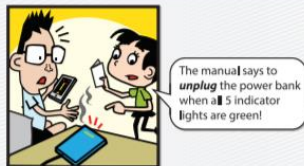
- While charging batteries, electronic devices or PMDs:
  - Charge in a cool room and away from heat.
  - Place them on hard, open and flat surfaces.
  - Do not place near combustible materials.
  - Do not cover with any fabric.
- Avoid charging batteries immediately after using the electric bicycle or PMD.

## Check for damage or deformities



- Examine for any damage or deformities such as:
  - Bloated or corroded batteries.
  - Powdery batteries.
- Refrain from charging such batteries as it may lead to overheating or fires.

## Avoid overcharging



- Follow manufacturers' instructions for charging.
- Do not overcharge batteries. Some battery models do not have an automatic power cut-off function.
- Avoid charging an already fully-charged battery.
- Do not leave batteries or devices to charge overnight.

## Keep and store properly



- Tape over the charging terminals if batteries are not to be used for a long period of time.
- Store batteries at room temperature.
- Avoid prolonged exposure to direct heat.
- Keep away from combustible or flammable materials.

## Other information

- Check for device compliance before purchasing.
- Purchase from reputable sources.
- Do not tamper with, modify or attempt to repair a device on your own.
- Purchase adaptors with a valid SAFETY Mark.



- Each SAFETY Mark has a serial number that can be verified via Enterprise Singapore's website: <https://cpsa.enterprisesg.gov.sg/totalagility/forms/cpsite/PUBSearchCOC.form>
- Use adaptors with current, voltage and wattage ratings compatible with the device.

For more information on the SAFETY Mark:  
Visit [www.enterprisesg.gov.sg/consumer-protection](http://www.enterprisesg.gov.sg/consumer-protection)

A safety message brought to you by:





# Enterprise Singapore



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## Product Safety Alerts and Recalls

We conduct compliance checks on consumer products sold locally to ensure they adhere to safety requirements. Stay up to date with the latest news regarding unsafe consumer products identified in Singapore.

FILTER BY TYPE

Recall



FILTER BY YEAR

All



FILTER BY CATEGORY

Electrical, Power Banks



APPLY



Share



Ask Jamie



# CONCLUSION

- Most fires in Premises are Accidental
- Understand what you are handling and the risks involved
- Do not ignore the warning signs. Personnel should be encouraged to identify and highlight any fire safety hazards
- Take steps to investigate the cause of abnormality before continuing work processes
- Fire Safety training and drills for ALL STAFF are critical
- For more information visit
  - [www.scdf.gov.sg](http://www.scdf.gov.sg)
  - [www.nfec.org.sg](http://www.nfec.org.sg)
  - [www.wshc.sg](http://www.wshc.sg)



**Thank You**

