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India SMART UTILITY Week 2025

Session 1: Emerging Smart Energy Technologies and Standardization Landscape on the topic - Emerging Smart Energy Technologies and Standardization Landscape – Global Perspectives.

UPDATE ON OCPP

Presented By

Lonneke Driessen, Director, Open Charge Alliance

The Open Charge Alliance (OCA) is the industry alliance governing OCPP

- OCA's goal is to help the EV charging industry accelerate
- A nonprofit foundation, founded in 2014 under Dutch law
- OCA develops OCPP, promotes OCPP and develops compliance testing and certification
- OCPP is freely available, open, patent and royalty free with no cost or licensing barriers
- OCPP is a trademark and is protected by copyright license

OCPP is developed following the need of the growing industry and incorporating field experience

Start of OCPP

OCPP1.6

Covers amongst others:

Authorization
Transactions
Smart Charging
Reservations
Security

OCPP2.0.1
(IEC 63584)

Improved functionality

Additional support for:
Device Management
User Interface
ISO 15118-2

OCPP2.1
(IEC 63584)

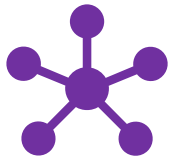
Improved functionality

Additional support for:
Bidirectional charging
DER controls
Payment terminals, QR codes
Smart Charging using an EMS
Battery Swapping
ISO 15118-20

OCPP continues to develop in 2025 according to the industry's needs

OCPP Lite Task Group

Special focus on OCPP for resource constrained devices

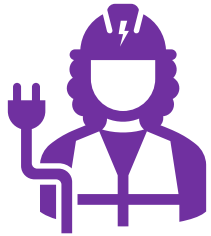


Networking / Local Controller Task Group

Define clear requirements for a Local Controller

Security Task Group

Revise and perhaps update the security specifications of OCPP



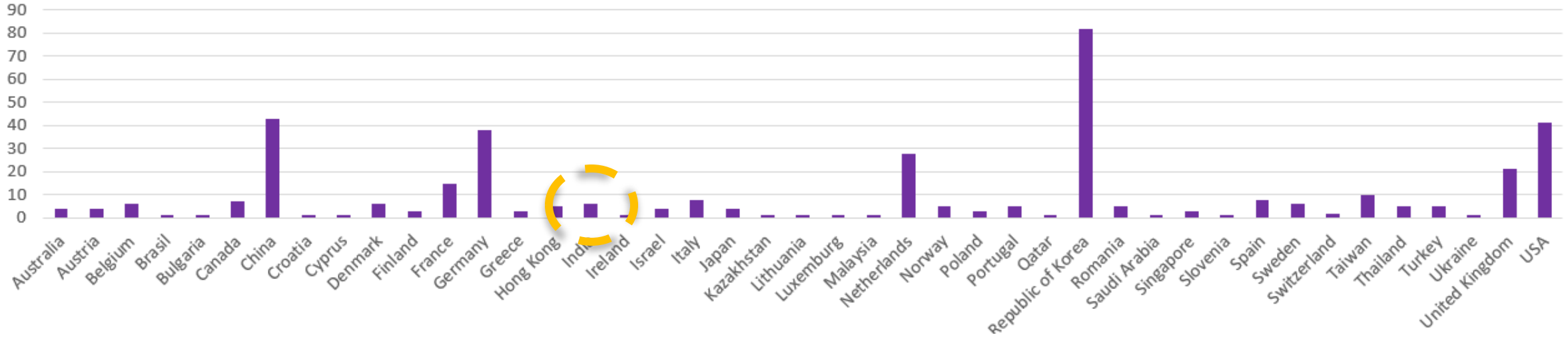
Commissioning Task Group

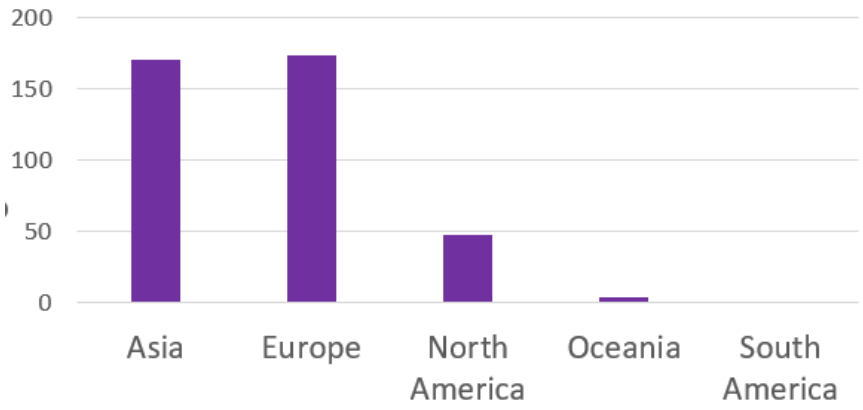
Explore if we can define a standard, easy, secure specification for the commissioning of charging stations

IEC 63584 = OCPP2.0.1ed3

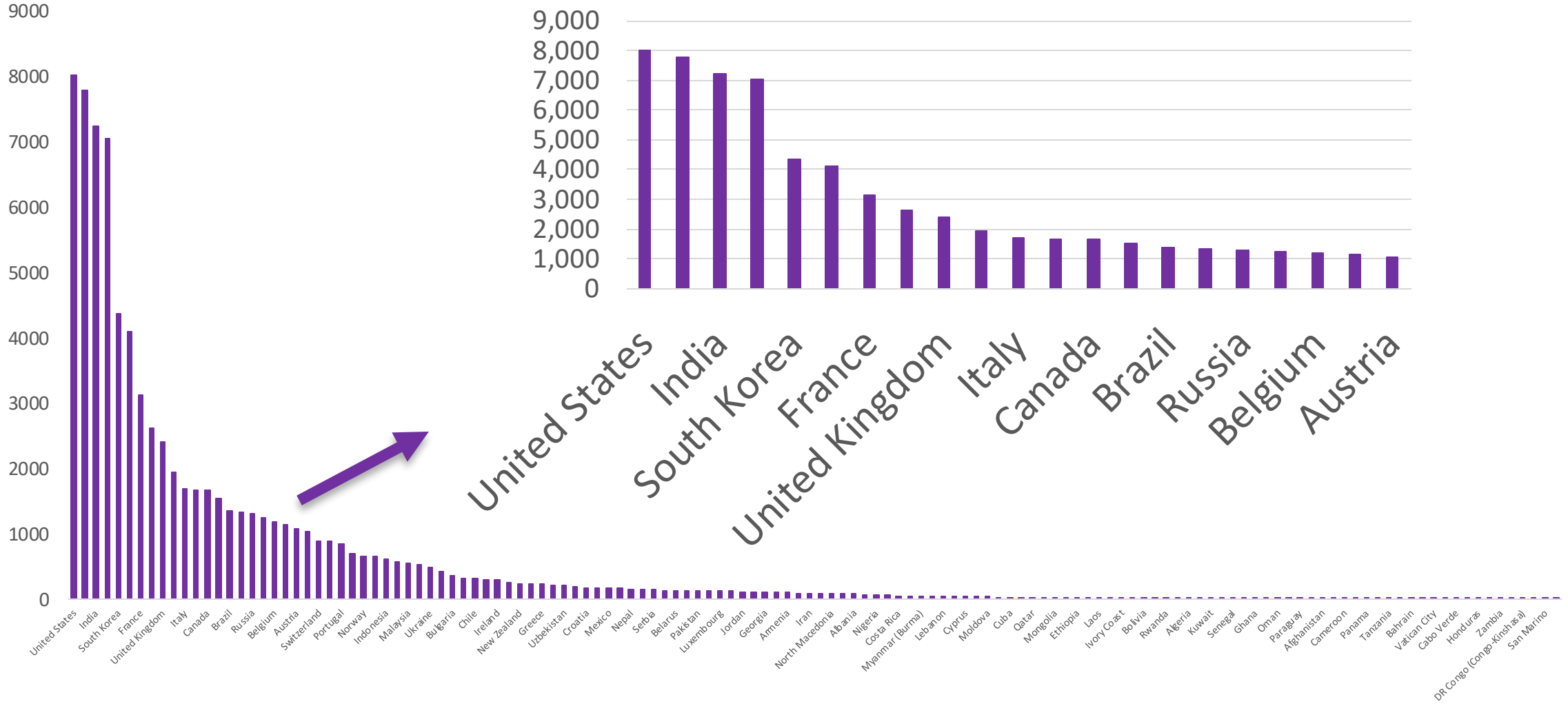
- OCPP2.0.1 ed3 (2024) is published by IEC as IEC 63584:2024
- All future versions of OCPP will be offered to IEC for publication
  - IEC 63584-21 (OCPP2.1)
- OCA will continue to develop OCPP within its working groups, together with IEC Liaison experts
- Draft documentation will be shared with IEC Technical Committees for information and feedback

OCA currently has 408 participants, 6 from India





OCPP downloads in India



OCPP is fit for all Indian Use Cases

OCPP covers many use cases

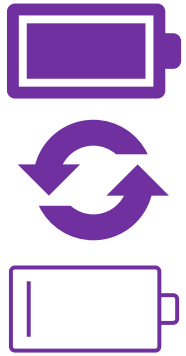
For DC Fast Charging, bi-directional charging, public charging and home charging

OCPP 2.Lite

Special focus on OCPP for resource constrained devices

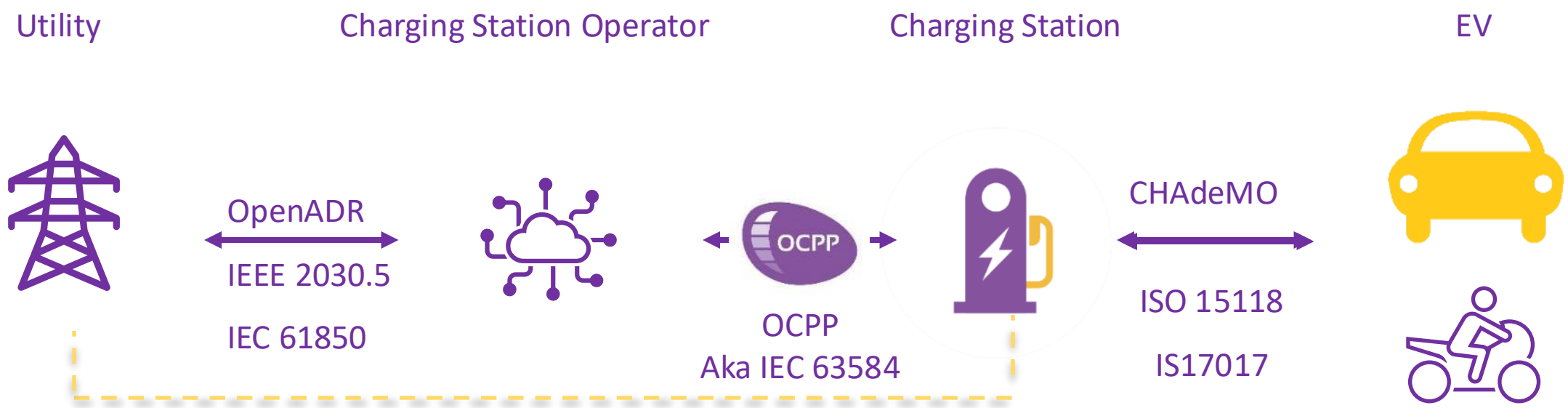
OCPP2.Lite - a lightweight implementation requires <200kB

Battery Swapping in OCPP2.1



New messages and use cases added for Battery swapping

Harmonization of OCPP with IEC and IEEE standards



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THANK YOU

For discussions/suggestions/queries email: isuw@isuw.in

www.isuw.in

Links/References (If any)