



WHEN TRUST MATTERS

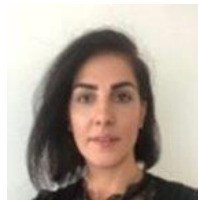
# Operational Metering Standards

Power Responsive Working Group

**Marellie Akoury-Shima**

Principal Consultant

DNV Energy Strategy Advisory



20th May 2024



# Agenda

- 1 Introduction to DNV**
- 2 Introduction & Scope of Work**  
Key Contacts, Introduction and Project goals
- 3 How we'll do it**  
Approach, work plan, impact assessments
- 4 Stakeholder Engagement**  
Engagement plan, technologies in scope
- 5 Engagement Dates**  
Key dates
- 6 Q&A**  
Questions that have arisen during the meeting

# 1. Introduction to DNV

A global assurance and risk management company

**159**  
years

**12,500**  
employees

**100,000**  
customers

**100+**  
countries

**5% R&D**  
of annual revenue

**Ship and offshore  
classification and  
advisory**



**Energy advisory,  
certification,  
verification and  
monitoring**



**Software and  
digital solutions**



**Management system  
certification,  
supply chain and  
product assurance**





## 2. Key Contacts

### DNV

Principal  
Consultant  
Project Manager

Marellie  
Akoury-Shima



Senior Consultant,  
Project Coordinator

Joseph  
Weston



Subject Matter  
Expert in DER,  
Market Design,  
Electricity Markets

Hans de Heer



Senior Consultant  
Subject Matter  
Expert in  
balancing  
services

Angeliki  
Gkogka



### ESO

Market and  
Network Insight  
Lead

Will Gratton



Power  
Responsive  
Manager

Callum  
Wright

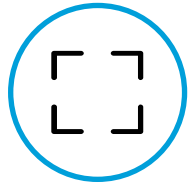


Demand Side  
Flexibility  
Specialist

Calum  
McCarroll



## 2. Introduction



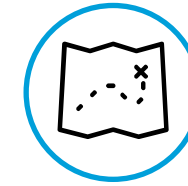
### Situation

- **Distributed Energy Resources** (DERs) connecting to the distribution network **is increasing** due to Net Zero transition.
- **DERs** could provide cost-saving **flexibility services** to ESO and DSO and are **crucial for system operations**.



### Complication

- **Current operational metering** requirements for participation in balancing services markets (i.e. frequency, latency, accuracy) are **designed for large power stations, hindering the ability of smaller providers** to meet these requirements.
- Meantime, ESO has set up the **Power Responsive**, a stakeholder-led programme, facilitated by the ESO, to **raise awareness on DER and DSR, ensuring equal opportunity** with the current BM participants when it comes to balancing the system



### Next steps

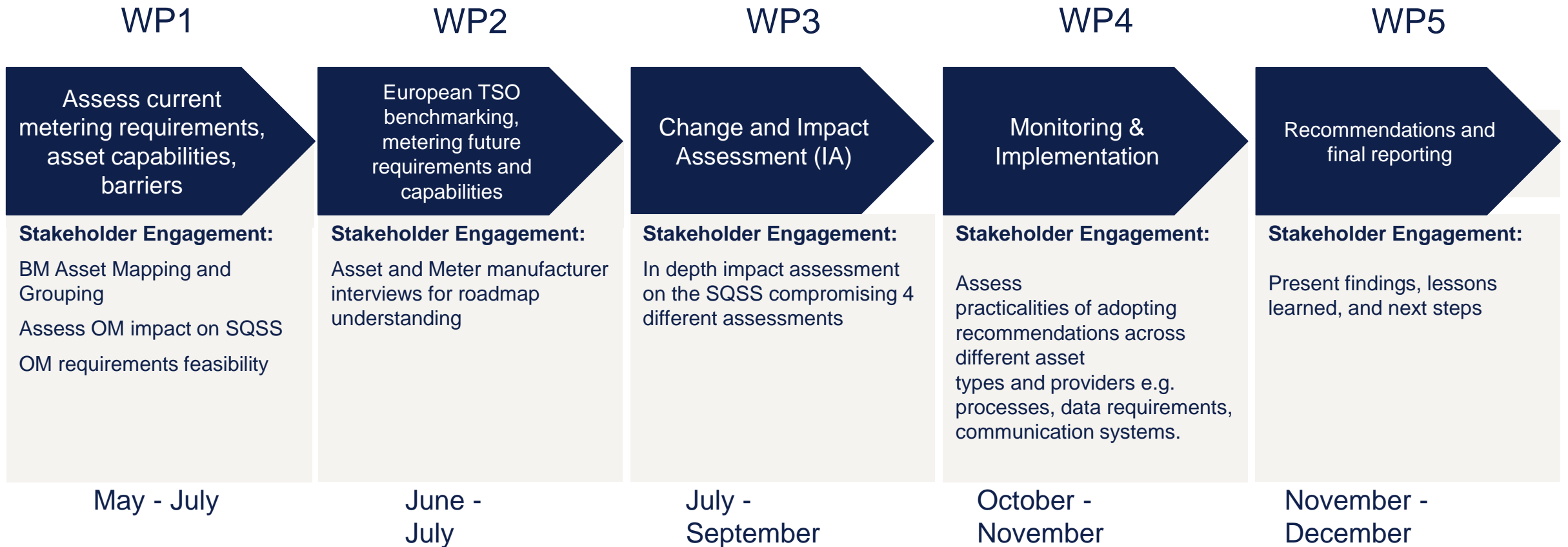
- NGESO has chosen **DNV** to **independently review and assess**, using a transparent methodology:
  1. The feasibility of the current operational metering standards for the Balancing Mechanism
  2. Options to **optimise the standards** which:
    - ✓ accommodate **diverse asset** providers
    - ✓ enable **NG ESO to meet SQSS** requirements with the current and forecasted energy mix

## 2. Project Goals

1. Assess the feasibility of the current metering standard using a clear and transparent methodology
2. Recommend optimised operational metering standards for the Balancing Mechanism which:
  - consider how providers with a diverse range of assets could meet the standards
  - consider learnings from regulations and processes used in Europe
  - allow NG ESO to continue meeting the SQSS with the current and forecasted energy mix
3. Assess the practicalities of adopting the newly proposed standards
4. Engage with ESO and external stakeholders to support the findings

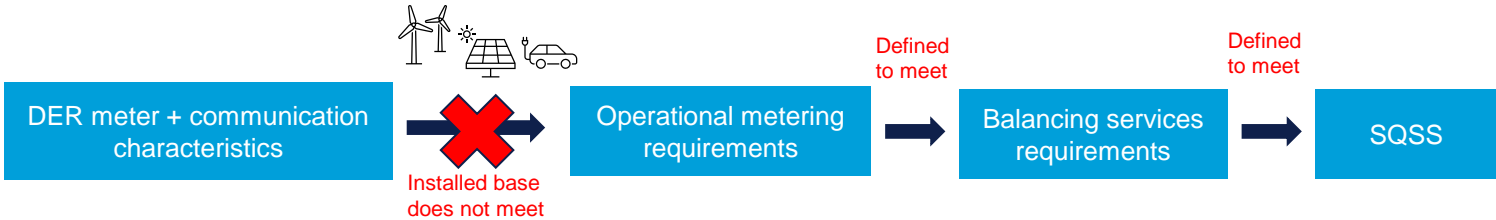


# 3. How we will do it

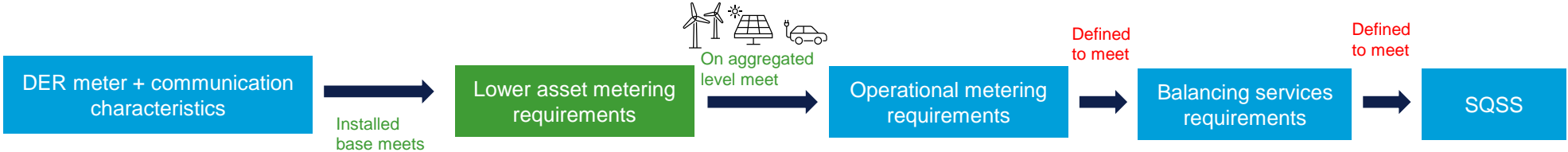


# 3. Impact Assessment

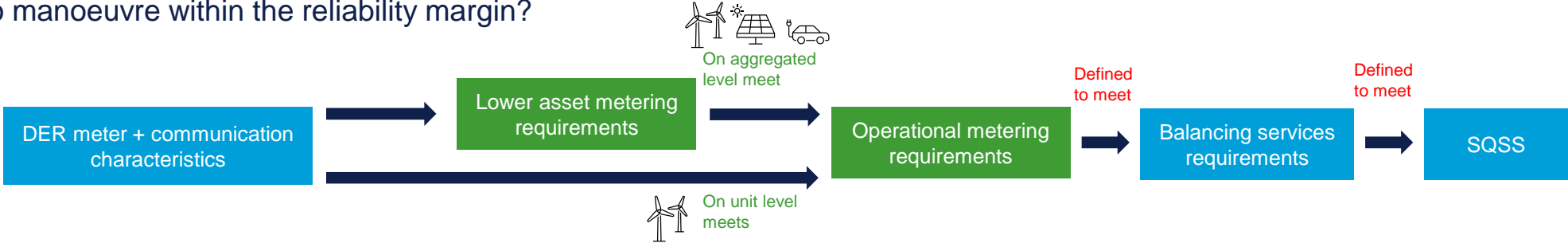
**Current situation:** most DER are not eligible to participate in balancing services



**Impact Assessment Level 1:** For aggregated units, can metering requirements be relaxed when there is no impact on aggregated level ?



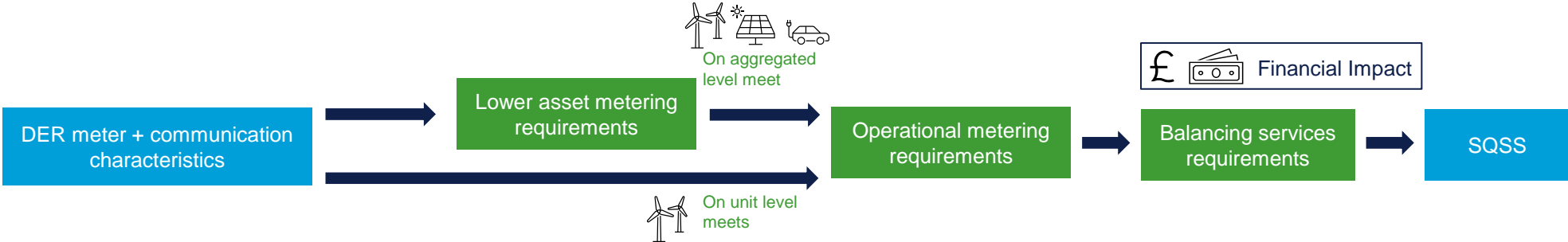
**Impact Assessment Level 2:** To what extent can operational metering requirements be lowered without affecting SQSS? Is there room to manoeuvre within the reliability margin?



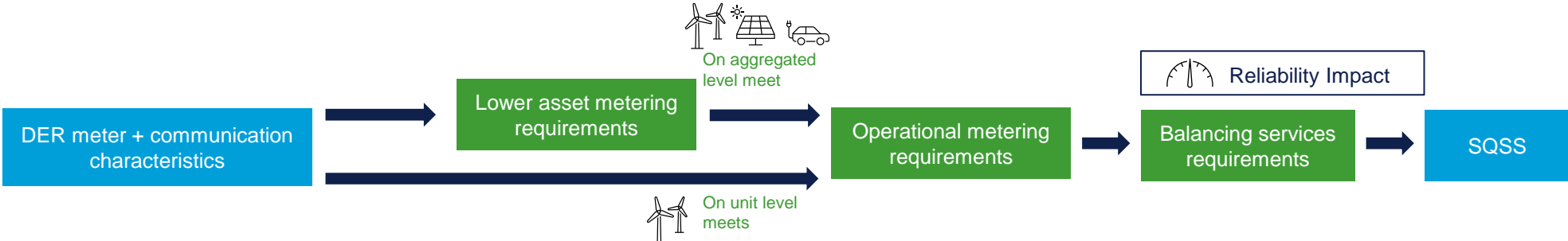


# 3. Impact Assessment

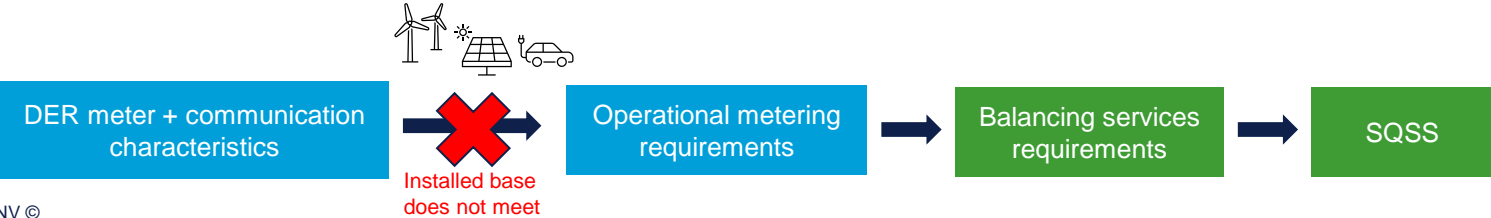
**Impact Assessment Level 3a:** To what extent can we allow financial impact on SQSS? (no impact on reliability, but financial impact)



**(Optional) Impact Assessment Level 3b:** To what extent can we allow impact on reliability?



**Impact Assessment 4:** No action, current and future impacts of most DER not participating in balancing services





## 4. Stakeholder Engagement

Aiming to understand:

- Barriers / issues related to implementation of current OM standards
- Current and future asset types and distribution
- Meter technology and standards roadmap
- Practicalities of adopting potential optimised standards

# 4. Stakeholders we plan to engage with to ensure a transparent and optimised outcome

## ESO Stakeholders

### Market Requirements

- Future Design and Development
- Frequency Risk & Modelling
- Balancing Services Optimisation

### Product Owners

- Balancing and SCADA systems,
- Balancing Programme

### System Security & Insight

- Operational Metering Team
- BM registration

### Network Operability

### Zero Carbon Operability (DER, EV, Storage)

### Market Change Delivery

### ENCC - Control Room

## Industry Stakeholders

### Balancing Service Providers

- Aggregated (VLPs)
- Non-Aggregated (e.g. BMUs and Embedded BMUs)

### Flexibility Service Providers (non-BM)

- Aggregated
- Non-Aggregated

### Suppliers acting as BSPs

### Meter Manufacturers

### Asset Manufacturers

### Trade Associations

### EU TSOs

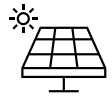
## 4. Technologies In Scope for Impact Assessment\*



Wind



Immersion



Solar



Battery Storage



EV Charger



Buildings (DSR)



Heat Pump / AC



Domestic Appliances

*\*All asset types and sizes will be considered during review of current OM standards*



## 5. Engagement Dates

Type	When
Working groups	Every time WP completed
	Ad-hoc e.g. WP1 interview feedback
1:1 and/or group interviews	May/June
	(DNV will get in touch with selected representative of each stakeholder group)

## 6. Questions?



To email questions contact: [power.responsive@nationalgrideso.com](mailto:power.responsive@nationalgrideso.com)

# WHEN TRUST MATTERS

Contact: [marellie.akoury@dnv.com](mailto:marellie.akoury@dnv.com)

[www.dnv.com](http://www.dnv.com)