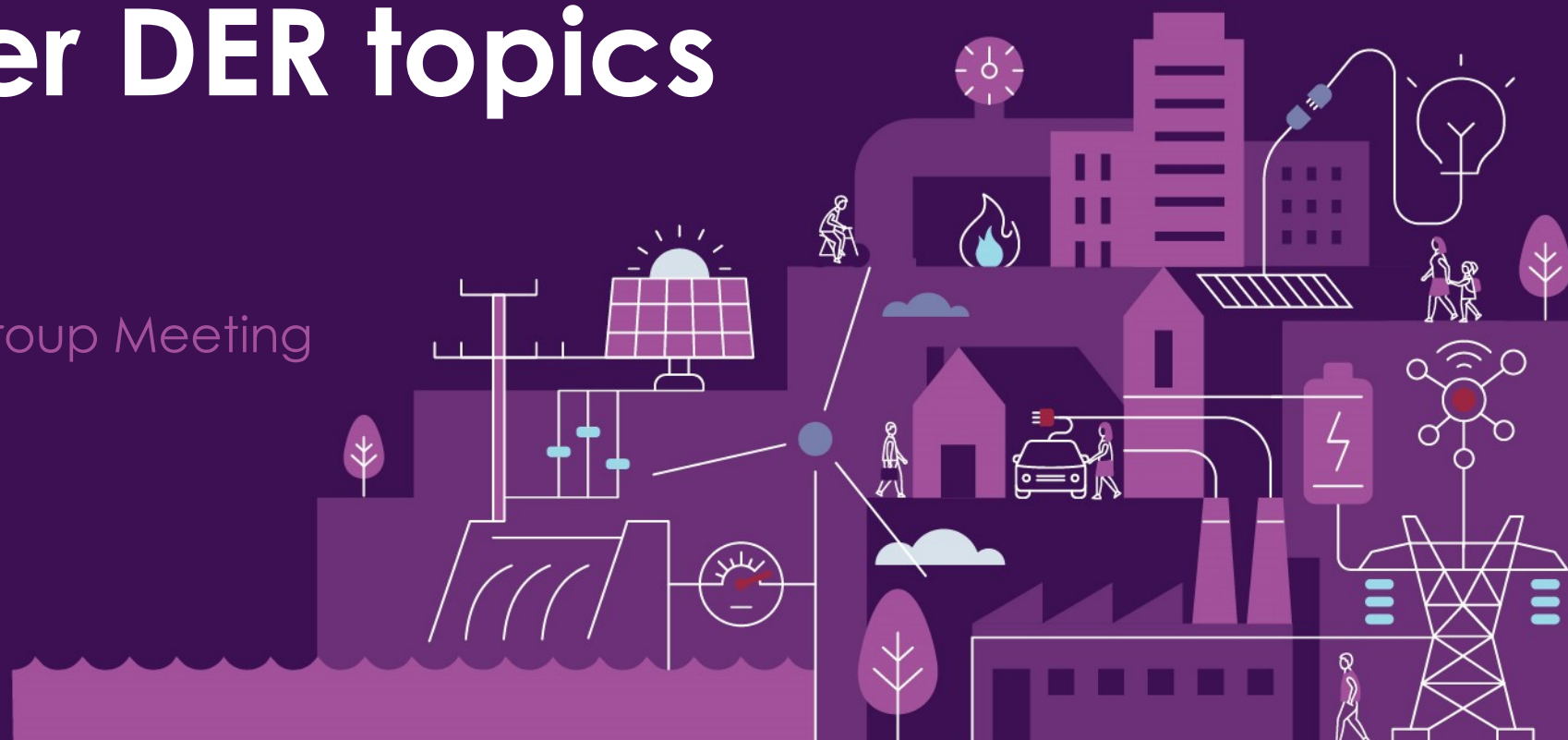


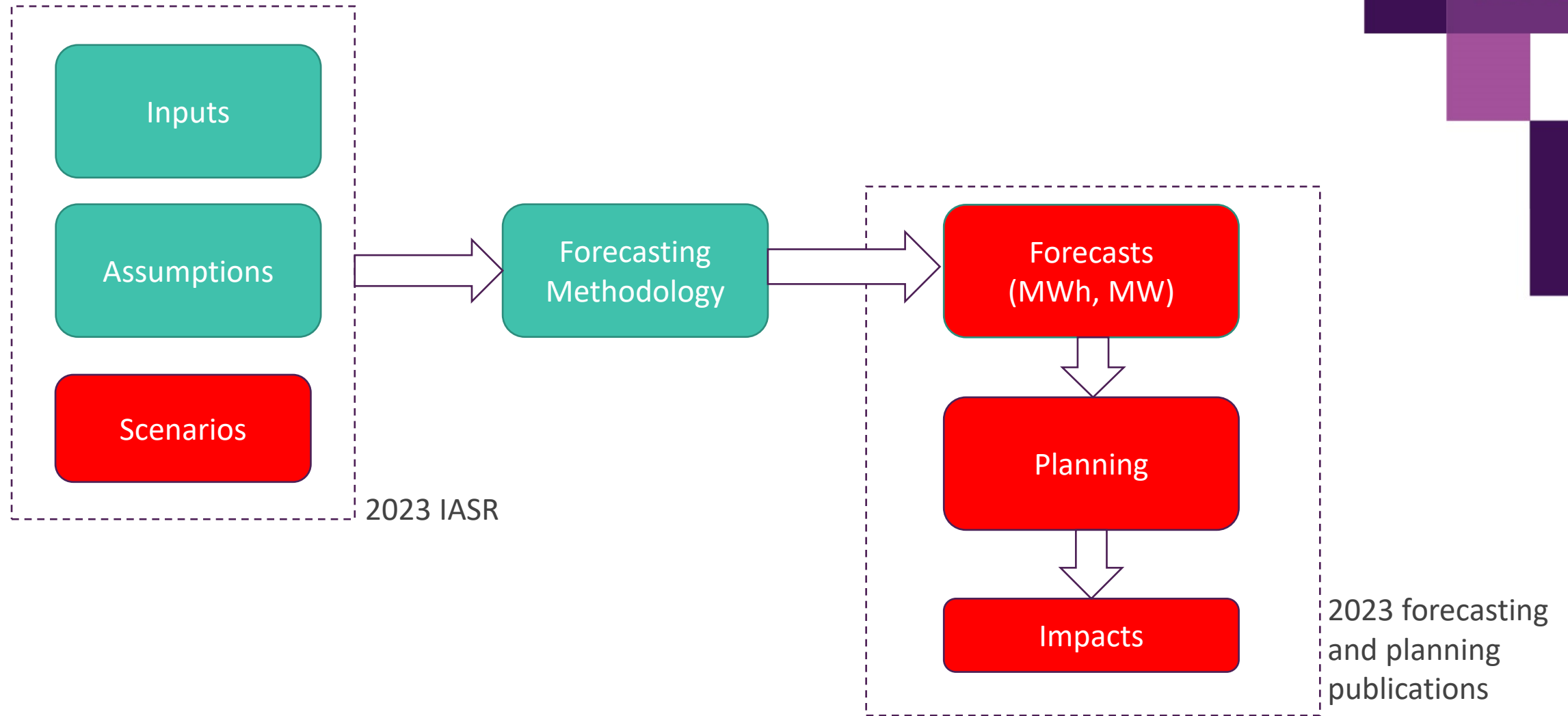
# 2023 Inputs and Assumptions – stakeholder DER topics

30 March 2022

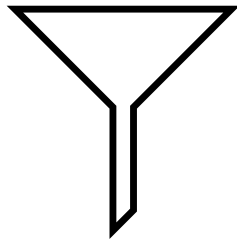
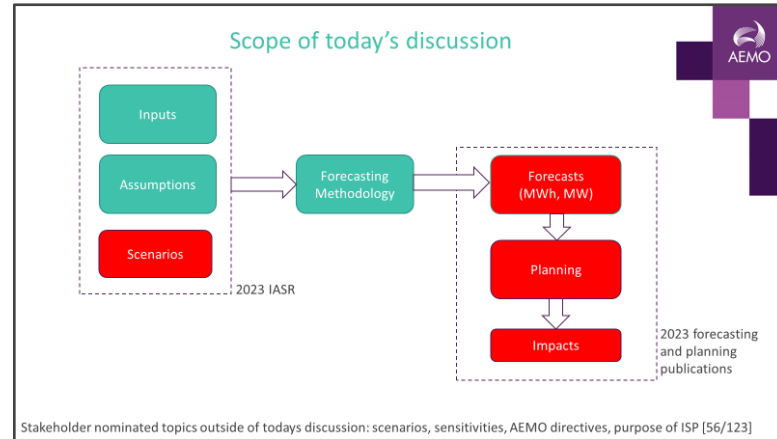
Forecasting Reference Group Meeting



# Scope of today's discussion

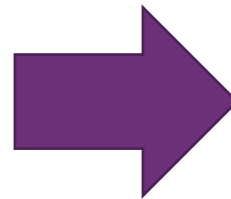


# Approach for discussion



Relevant to  
electricity  
forecasts?

Discuss importance of topics  
and how to incorporate in  
electricity forecasts



Economy and  
Multi-sector  
model

*Feb FRG meeting*

DER and EV

*This FRG meeting*

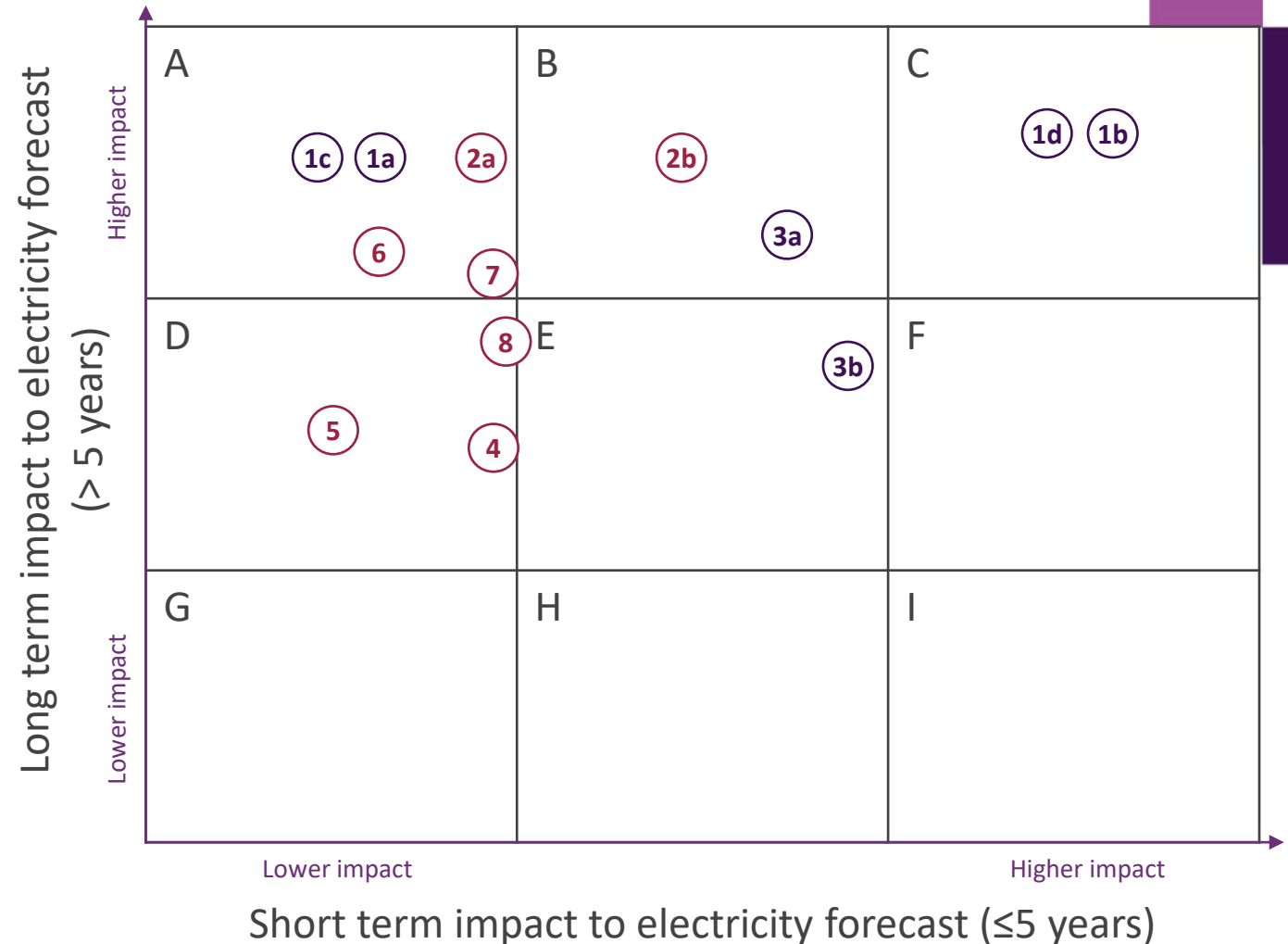
IASR/ISP Engagement  
planning

## Recap from February:

# A first pass on relative importance of Economics and Multi-sector modelling topics

Draft

1. Climate change
  - a. Expected meteorological changes
  - b. State schemes
  - c. National targets
  - d. Investor bias
2. Electrification by segment
  - a. Electrification of gas
  - b. Electric Vehicles
3. Electrification drivers
  - a. Electrification of gas
  - b. Electric Vehicles
4. Energy efficiency
5. Grid connected electrolyser demand
6. Electrolyser uptake
7. Hydrogen technology
8. Fuel Prices



Improvement category:

Forecasting driver

Forecasting assumptions

Stakeholder education

Data and reporting

Forecasting methodology

# Ranking relative priorities

Practice using [this Slido “Ranking poll”](#) (sign in with your organisation and name)

- Click the options in order of ranking
- Once all options are clicked, “drag and drop” to re-order

Please rank the relative LONG TERM importance of the following EV topics



Please rank each item from 1 - most important to 6 - least important

- 1 a - EV charging behaviours
- 2 b - The availability of EV data to support forecasting and operations

Select options from the list below.

- ☐ c - Development and availability of EV design improvements
- ☐ d - Development of EV infrastructure
- ☐ e - Government policies and incentives

Send

Please rank the relative LONG TERM importance of the following EV topics



Please rank each item from 1 - most important to 6 - least important

- 1 a - EV charging behaviours
- 2 b - The availability of EV data to support forecasting and operations

4 d - Development of EV infrastructure

3 c - Development and availability of EV design improvements

5 e - Government policies and incentives

Send

↑  
Click “Send” when you're done

# Topics for discussion today

What is the relative long and short term importance of each of the following topics:

1. DER uptake
  - a. Development of technology which improves DER efficiency and/or duration
  - b. Cost and availability of DER technology, including its raw materials
  - c. Potential saturation of rooftop PV penetration
  - d. Size and timing of PV and battery replacements
  - e. Consumer acceptance and uptake of batteries
  - f. Tariff reform
  - g. The growth of PV Non-scheduled Generation (PVNSG)
2. DER management
  - a. PV and battery degradation
  - b. The emergence of technology that allows rapid system response
  - c. The interactions between home PV and battery systems
  - d. The impact of residential DER on distribution networks, and their response
  - e. Magnitude and potential uses of Virtual Power Plants
  - f. Consumer participation in the wholesale energy market through Wholesale Demand Response (WDR) and Demand Side Participation (DSP)
3. Electric Vehicles
  - a. EV charging behaviours
  - b. The availability of EV data to support forecasting and operations
  - c. Development and availability of EV design improvements
  - d. Development of EV infrastructure
  - e. Government policies and incentives

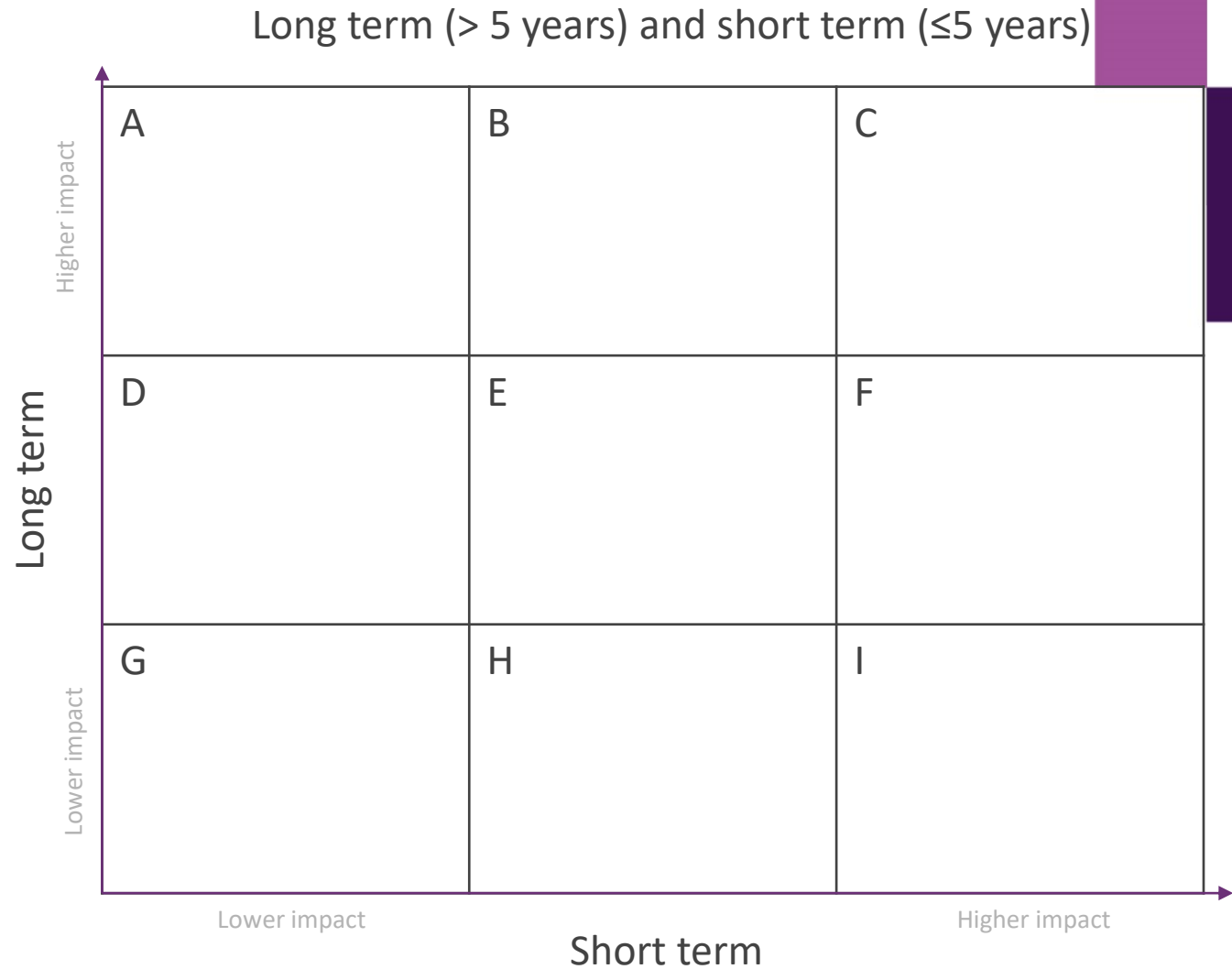
# For discussion: a first pass on relative importance of DER (PV, Batteries) uptake topics

Draft

Please rank the following topics in relative importance (long and short term) to AEMO's electricity forecasts:

## 1. DER uptake

- a. Development of technology which improves DER efficiency and/or duration 1a
- b. Cost and availability of DER technology, including its raw materials 1b
- c. Potential saturation of rooftop PV penetration 1c
- d. Size and timing of PV and battery replacements 1d
- e. Consumer acceptance and uptake of batteries 1e
- f. Tariff reform 1f
- g. The growth of PV Non-scheduled Generation (PVNSG) 1g



# For discussion: a first pass on relative importance of DER (PV, Batteries) management topics

Draft

Please rank the following topics in relative importance (long and short term) to AEMO's electricity forecasts:

## 2. DER management

- a. PV and battery degradation
- b. The emergence of technology that allows rapid system response
- c. The interactions between home PV and battery systems
- d. The impact of residential DER on distribution networks, and their response
- e. Magnitude and potential uses of Virtual Power Plants
- f. Consumer participation in the wholesale energy market through Wholesale Demand Response (WDR) and Demand Side Participation (DSP)

2a

2b

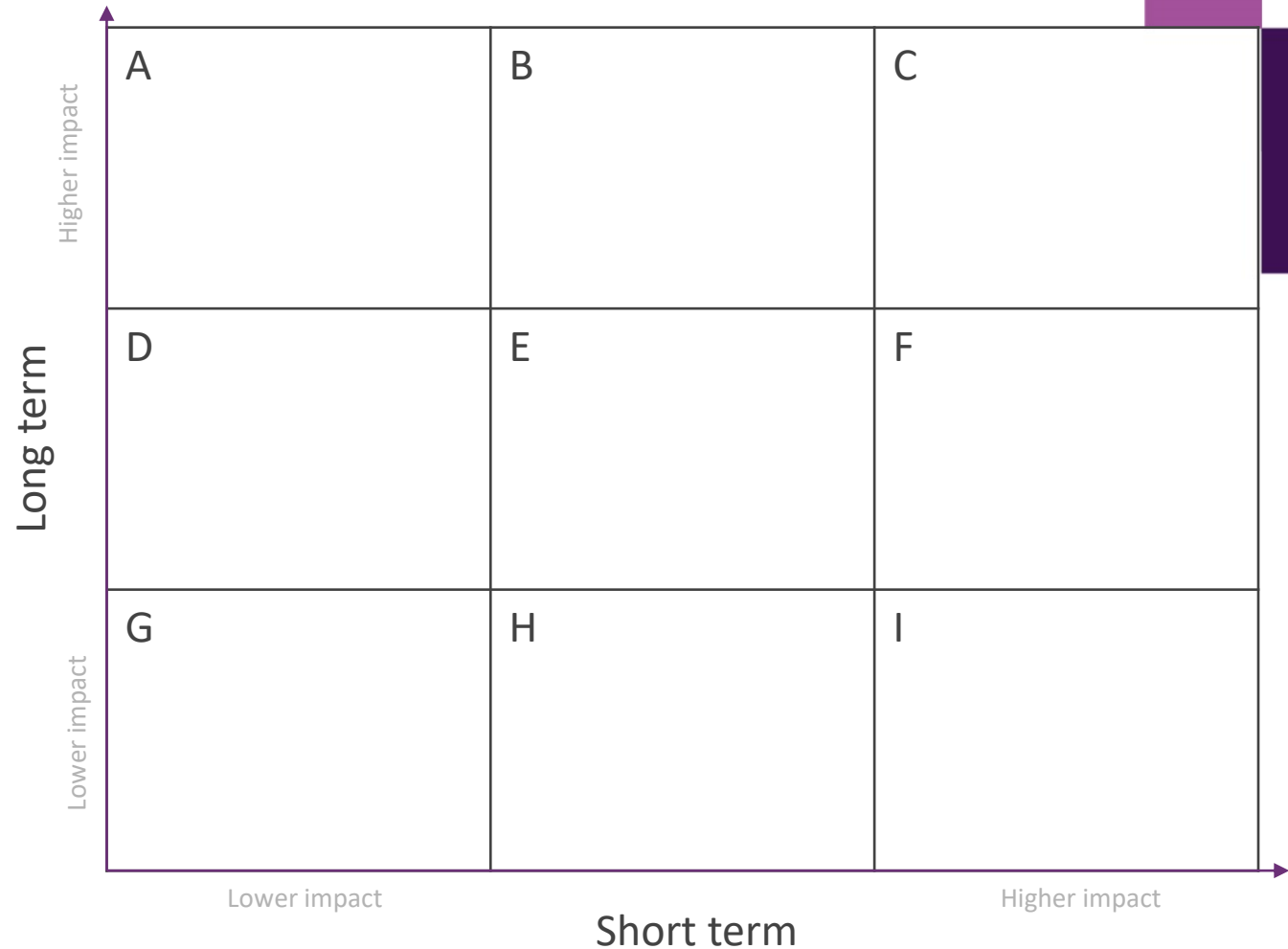
2c

2d

2e

2f

Long term (> 5 years) and short term ( $\leq 5$  years)





# For discussion: a first pass on relative importance of Electric Vehicle topics

Long term (> 5 years) and short term ( $\leq 5$  years)

Please rank the following topics in relative importance (long and short term) to AEMO's electricity forecasts:

## 3. Electric Vehicles

- a. EV charging behaviours
- b. The availability of EV data to support forecasting and operations
- c. Development and availability of EV design improvements
- d. Development of EV infrastructure
- e. Government policies and incentives

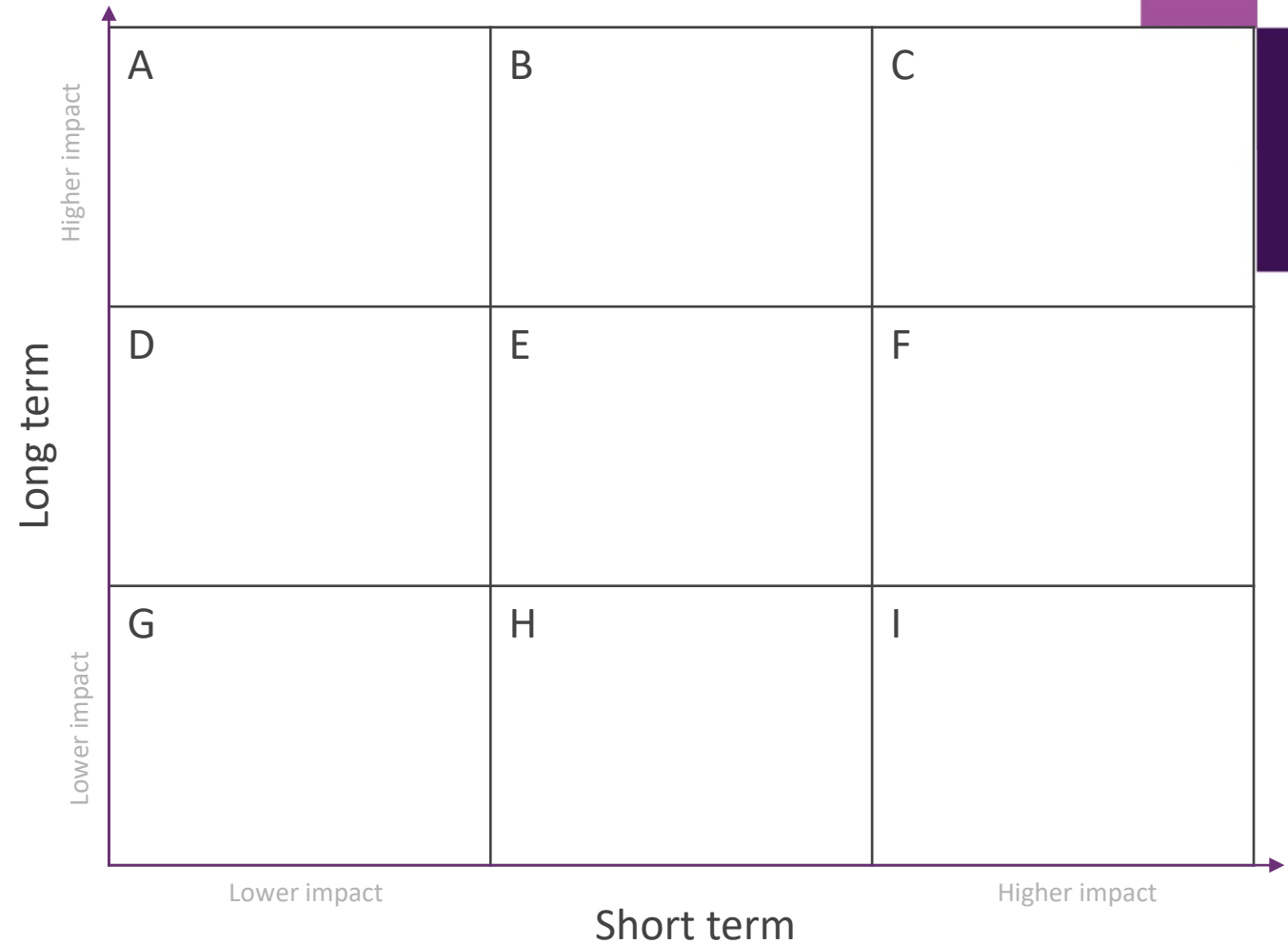
3a

3b

3c

3d

3e



# Electricity stakeholder engagement planning

