

CER Benefits of Flexibility

Energeia's Scope and Approach

Overview and Summary of Feedback Received

16 October 2023



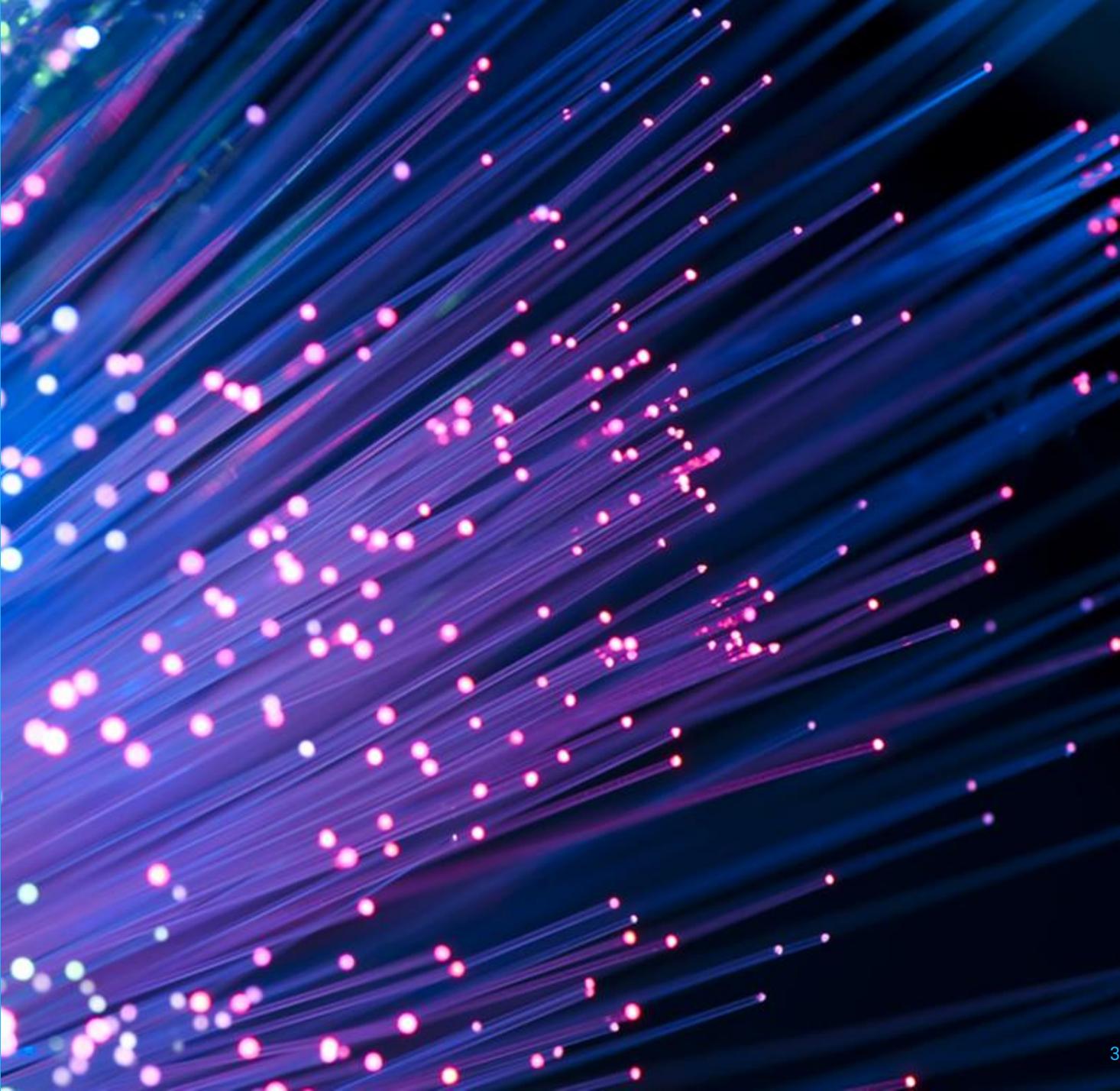
Agenda

Energieia Scope and Approach

Stakeholder Feedback

- Summary
- Responses

Energieia's Scope

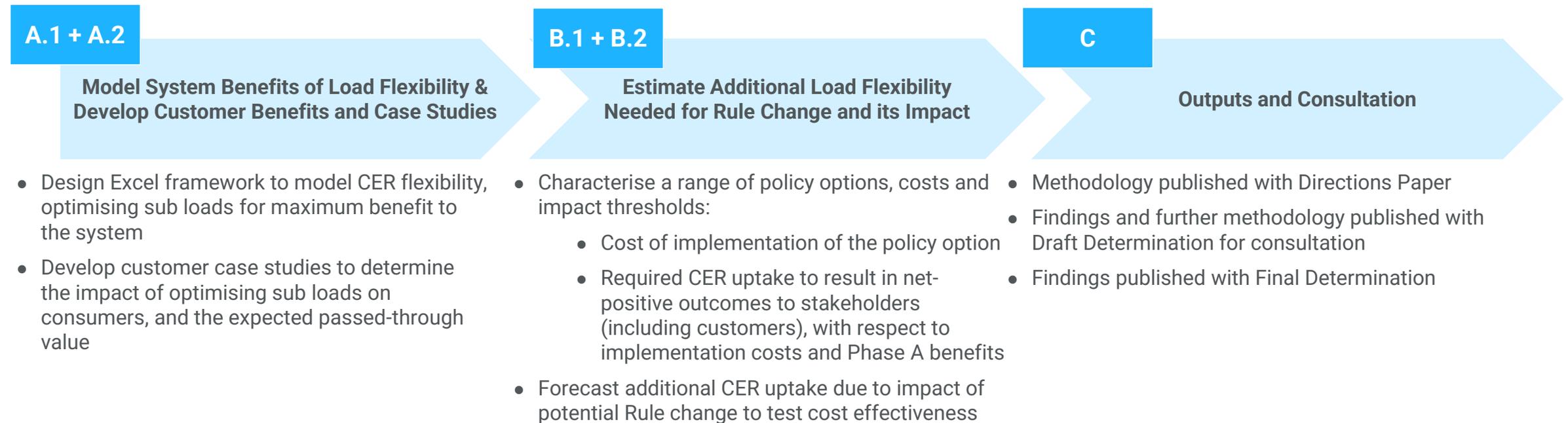


Project Objectives and Energeia's Approach

Key Project Objectives:

- Energeia has been contracted by the AEMC to develop an analysis of system and consumer benefits of additional flexibility of Consumer Energy Resources (CER)
- While the project is focused on estimating system and consumer benefits associated with load flexibility and quantum of the benefits and uptake of load flexibility needed to justify costs, it will also look at system costs associated with particular policy options under this rule change

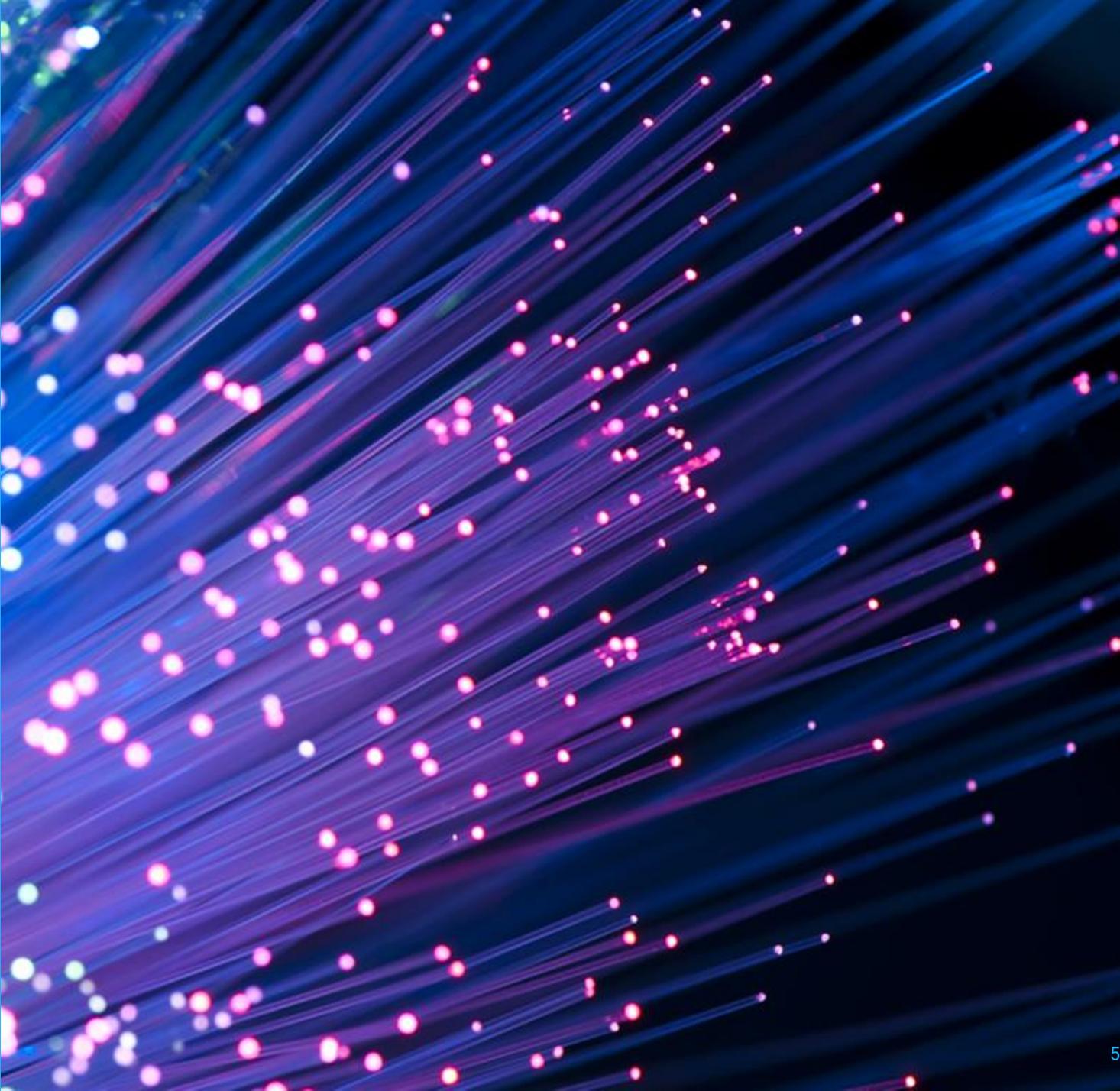
Scope and Approach:



Stakeholder Feedback

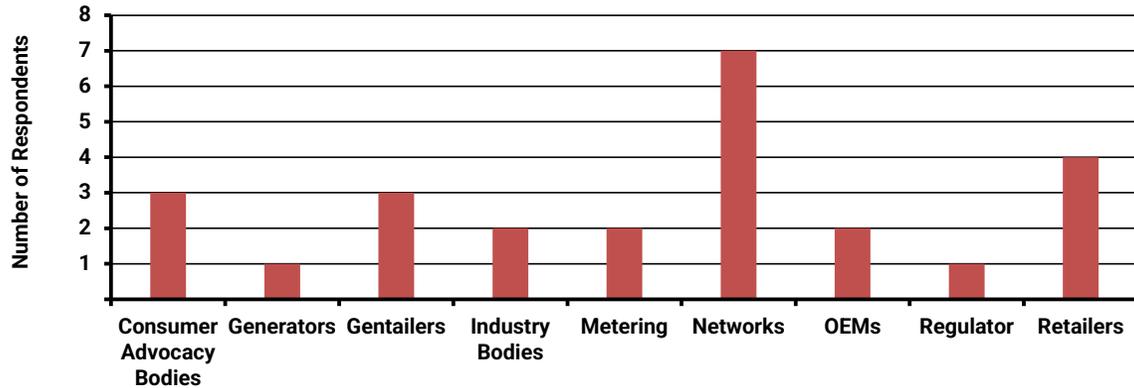
Summary by Stakeholder Category

Draft Response by Issue



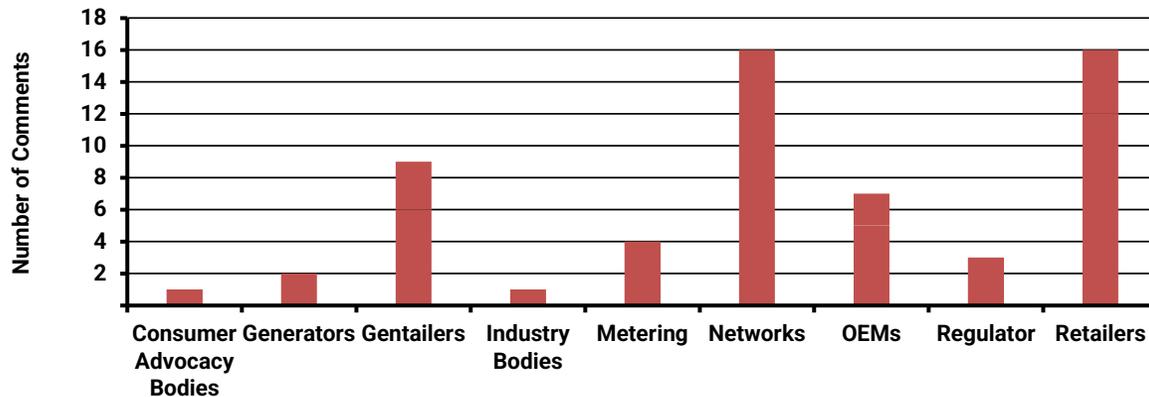
Summary of Stakeholder Feedback

Number of Respondents



Source: AEMC Directions Paper Feedback, Various Stakeholders

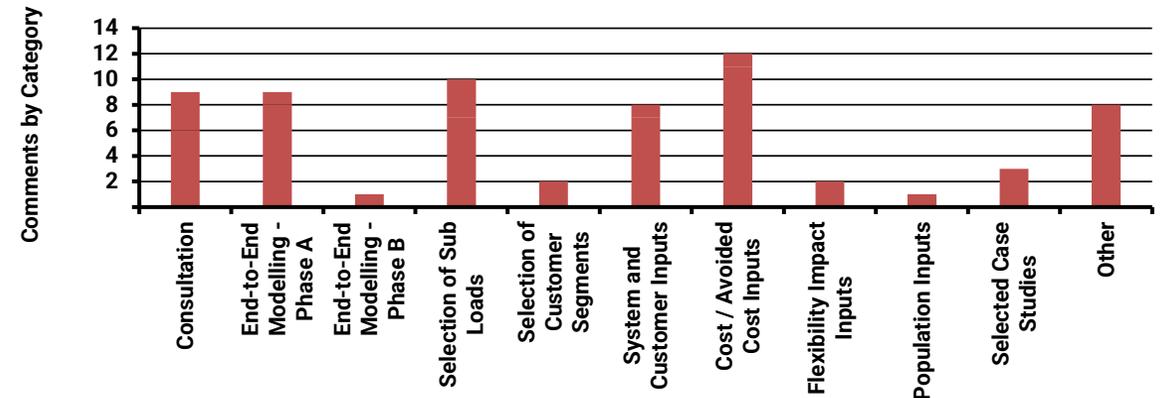
Number of Comments Raised



Source: AEMC Directions Paper Feedback, Various Stakeholders

- Energeia has consolidated feedback by respondent
- Most comments concern the Phase A methodology, inputs and consultation issues
- Following slides address Energeia’s responses to key feedback received
 - Of the comments received, 16 key comments are addressed in the following slides
 - The remainder were classified as for noting or out of scope for Energeia

Distribution of Comments Raised



Source: AEMC Directions Paper Feedback, Various Stakeholders

Summarised Stakeholder Feedback by Issue – Energeia Response (1/2)

Issue #	Topic	Issue	Energeia Response
1	Consultation	Caution against conducting analysis without data from retailers	Happy to include any data made available from retailers around load flexibility costs or uptake of load flexibility
2	Consultation	Flag the lack of consultation around input data quality in all areas, particularly around current programs	Welcome feedback from stakeholders on costs or other inputs to feed into the modelling
3	Cost / Avoided Cost Inputs	Provided a more accurate source for hot water technology splits - BIS Oxford Economics "Hot Water Systems Market in Australia Report" July 2022	Happy to utilise this report
4	Cost / Avoided Cost Inputs	Consider the difference between implementing flexible trading arrangements (FTAs) for large vs. small customers	Will be considered based on granularity of cost inputs
5	Cost / Avoided Cost Inputs	Need to consider additional costs to network of hosting dynamic operating envelopes (DOEs) and flexible pricing arrangements	Happy to include any data made available from networks around load flexibility implementation costs, will be considered in the case studies analysis
6	End-to-End Modelling Process - Phase A	Concerned Energeia's method is an overestimation of value as it does not account for diminishing returns	The AEMC have considered a more complex modeling approach and have determined that a simplified, first order-based approach to be appropriate
7	End-to-End Modelling Process - Phase A	Energeia's methodology doesn't consider opportunities and costs from a customer's perspective	Method accounts for the alternative case where consumers minimise their own bill, and the impact of system optimisation on their bill
8	End-to-End Modelling Process - Phase A	Concerned that the method is double counting/overestimating benefits	Have accounted for the fact that addressing one system benefit has implications for other value streams, so should lower risk of double counting

Source: AEMC Directions Paper Feedback, Various Stakeholders

Summarised Stakeholder Feedback by Issue – Energeia Response (2/2)

Issue #	Topic	Issue	Energeia Response
9	Population Inputs	Note lack of consideration for jurisdictional differences	We are considering unique jurisdictional subloads and costs to the extent the information is in the public domain
10	Selected Case Studies	Want commentary on the difference in consumer outcomes between 'whole-of-home' optimisation and device by device optimisation	Will be addressed in the consumer case studies
11	Selection of Sub Loads	Suggest that Residential HVAC should be re-included as it has a large opportunity (up to 25% during system peak intervals)	The resource was excluded due to the technology's availability and ultimate level of flexibility
12	Selection of Sub Loads	Flexible load should only consider electric load (referring to table 3 of methodology report)	Modelling will only consider electric load. However, all load was used to determine scope of analysis since it could be electrified in the future
13	Selection of Sub Loads	Concerned V2G isn't likely due to car warranties	In the long-run, if the benefits are great enough, we expect warranty issues would be resolved; we note no warranty issues currently exist
14	System and Customer Inputs	Caution using 2022 prices, suggest taking an average or other historical year or AEMO forecast	We agree to use 2019 prices noting they are lower on average vs. today. We disagree with averaging as it would smooth price spikes, which are a key driver of the value of flexible resources
15	System and Customer Inputs	Concerned that we haven't considered customer's reluctance to uptake new tariffs incentives	This will be explored in Phase B where we look deeper into the achievable uptake of flexibility
16	Other	Suggest better language regarding BaU scenario which is currently called 'No Flexibility' when currently there is some flexibility	There is no current ability to break out sub-loads outside of the primary NMI for settlement purposes

Source: AEMC Directions Paper Feedback, Various Stakeholders

Thank You

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