

FlexForum: session VI

Pre-reading for 14 April 2022 session

Shared 11 April 2022

Session overview – topics and decisions

Five items

1. High-level requirements for responding to conditions (topic B)
 - a) Endorse the requirements and descriptions for engagement with stakeholders
2. Narrative for Flexibility needs (topic A)
 - a) Endorse the narrative for engagement with stakeholders
3. Workplan, engagement and communications
 - a) Endorse approach to webinar and approve announcement of webinar
4. High level requirements for transacting flexibility (topic C)
 - a) Presentation and discussion
5. Administration – governance, budget and funding
 - a) Update

High level requirements for responses to network, system & market conditions (workplan topic B)

The purpose of the high-level requirements is to provide:

- the event-related information needed by a DER owner/flex supplier to make decisions about investing in and supplying DER capability to respond to network/system/market conditions
- a reasonable starting point for a common terminology for services

Questions

1. Page 7 sets out eight triggers for flexibility. Do these descriptions provide a reasonable starting point a common terminology for services (ie, product names)
2. Pages 5 and 6 describe the high-level requirements for defining the characteristics and technical parameters for a response to network, system or market conditions. Are these requirements sufficient for testing with stakeholders?
3. What are the top three need cases / conditions described in the table (refer separate document) which would be useful to discuss with stakeholders?
4. How would you present the high-level requirements to an external audience?
5. What feedback are we seeking from stakeholders on the flexibility needs?

High-level requirements – defining the characteristics of a network, system or market condition

These are the characteristics of a network, system or market condition potentially requiring an operational response that could be delivered using flexibility

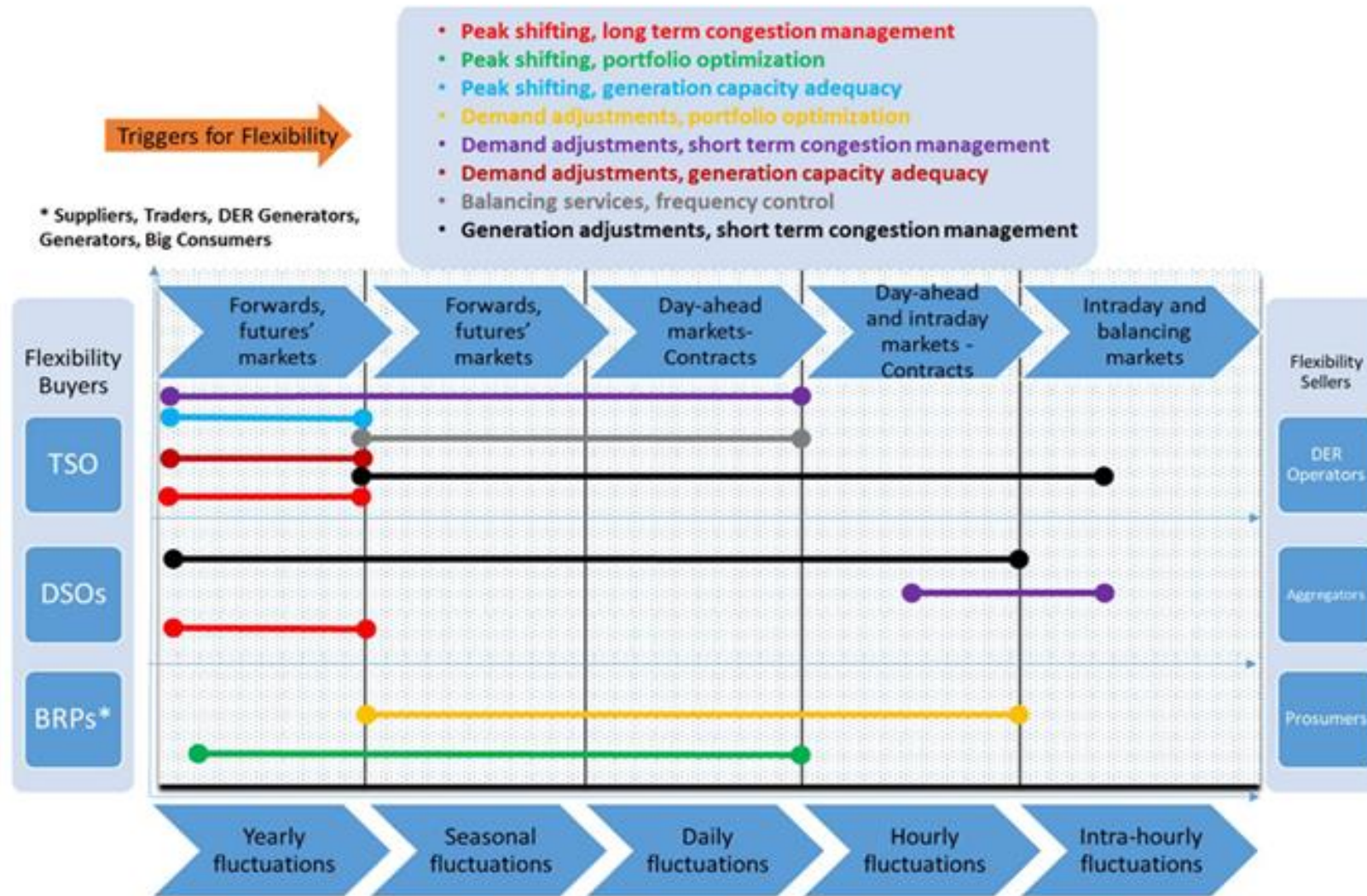
Condition / need case	<i>Description of the market or network conditions that trigger a need case for flexibility</i>	<i>Examples: Fuel Management, Response to high nodal pricing, growth driven capacity shortfall, connection driven capacity shortfall</i>
Value driver	<i>What are the financial or societal values that can be attributed to resolving the need case</i>	<i>Examples: Affordability, Environmental, Reliability, Financial</i>
Condition characteristic	<i>Describes specific network or market characteristics that can be addressed to mitigate the condition</i>	<i>Examples: Thermal / voltage constraints on network infrastructure; Peak Demand</i>
Location of condition	<i>Defines a specific geographic area or portion of a physical network where the condition will exist / where service will be called</i>	<i>Examples: Island, Network, GXP, Zone Substation, Suburb, Highly Locational (ICP)</i>

High level requirements – defining the technical parameters of a response

Location of condition	<i>Defining a specific geographic area or portion of a physical network where the condition will exist / where service will be called</i>	<i>Examples: Island, HVDC, GXP, Distribution Network [Zone Substation, Suburb, Feeder], Retailers</i>
When need identified	<i>How far in advance of the use of a service would the need for a service be identified?</i>	<i>Examples: 3-5 years in advance (b/c of annual AMP reviews) ; 1 year in advance (because of weather/fuel cost forecasts); at time of connection request of a significantly sized new consumer</i>
When need communicated	<i>How far in advance of the use of a service would procurement begin?</i>	<i>Examples: 3-5 years (due to procurement timelines and time required to deploy alternative solutions)</i>
When use communicated	<i>How far in advance of the use of a service would the request for action be sent (i.e. event signals)?</i>	<i>Examples: day ahead, hours ahead, minutes ahead, instantaneous</i>
Availability of response	<i>How long of a commitment is needed from flexibility service providers to have the service available for use (armed)?</i>	<i>Examples: 1-3 year fixed contract, 6 monthly renewable commitments, option to bid on each trading period</i>
Response required	<i>Use Common Language of Shift, Shed, Shimmy, Shape</i>	<i>Examples: Shift - moving demand sporadically in response to an external signal ; Shed - switching off load ; Shimmy - adjusting demand over very short timescales in response to an external signal; Shape - moving demand routinely according to a long-term pattern</i>
Type of response	<i>What type of physical response is needed</i>	<i>KVA $\uparrow\downarrow$; KVAR $\uparrow\downarrow$; Voltage $\uparrow\downarrow$; Frequency Regulation ; Shifting Energy</i>
Response speed	<i>How quickly does a service provider need to provide the service after receiving an event signal</i>	<i>Examples: <5 minutes, <1 minute, Instantaneous</i>
Response duration	<i>What is the expected duration of each event/response</i>	<i>Examples: 1-4 Hours (length of demand period) ; 30 minute trading period ; sub trading period ; seconds</i>

Combine these into 1?

Eight triggers for flexibility – a standard terminology for services?



• [Source](#)

Figure 4 Linkages between the demand for flexibility services, the associated time horizons and potentially applicable market tools (adaptation from [5])

Event related information required by DER owners

This is the event related information required by DER owners. The high-level requirements address items 1-4. Items 5 and 6 are being considered in workplan topics C & D.

1. Urgency of event	<i>Urgency of event. Is a response from the DER owner optional or mandatory? What choice does the DER owner have to opt out?</i>
2. Start	<i>When is the event?</i>
3. Duration / finish	<i>How long is the event for?</i>
4. Action / service required	<i>Response required: power increase or decrease & quality</i>
5. Price / compensation	<i>What is the payment / compensation for responding to the event?</i>
6. Reporting	<i>What is the reporting requirement; ie, what information or data is required to prove the DER owner delivered the response?</i>

Description of flexibility needs (workplan topic A)

See 'Flexibility needs...' document (attached separately) describing the flexibility needs of DER owners, network owners, operators and market participants

Two overarching conclusions:

- the flexibility needs of DER owners are market and technical information relating to service requirements, contractual mechanisms and compensation
- the flexibility needs of network owners, operators and market participants is access to resources which can deliver a specific operational response to specific network, system and market conditions, with flexibility being an option.

Questions

1. What feedback are we seeking from stakeholders on the flexibility needs?

Details of engagement process and timeline

Date	Item	Target Output / Action	Owner/Decision Maker
31 March 2022	FlexForum session V	Decision on what will be published on the website	Decided at session V 31/03
		Approve engagement	Decided at session V 31/03
1 – 14 April 2022	Webinar preparation (organisation)	Webinar content	
		Topic A: Flexibility Needs draft output	Confirm at this session – item 2
		Topic B: High-level requirements draft output	Confirm at this session – item 3
		Stakeholders: Inform: all interested stakeholders. Obtain input: distributors, DER owners, Flexibility suppliers	Populating stakeholder list for announcement
		Webinar date – 27 April	
1 - 14 April 2022	Webinar content / agenda	Webinar agenda – see next page. Content and key questions are informed by webinar agenda and purpose	Decision on agenda and approach at this session – item 4
14 April 2022	FlexForum session VI	Confirm webinar content	Secretariat & speakers will finalise webinar material by Thursday 21 April
14 April 2022	Announce engagement	Targeted communications to key stakeholders through email and website links. <ul style="list-style-type: none"> webinar date and agenda context and scene-setting (any specific content, plus webpage) 	Process. Ara Ake to deliver
27 April 2022	Webinar	Targeted communications to stakeholders with: <ul style="list-style-type: none"> topic A and B outputs and questions Options for providing comment – webpage, email and follow up webinars 	Process. Ara Ake to deliver
28 April 2022	FlexForum session VII	Webinar debrief	FlexForum
29 April - 6 May 2022	Gather responses from webinar and organise targeted sessions, if necessary	<ul style="list-style-type: none"> Follow up targeted webinars and 1-1 sessions Summary of input and feedback 	Ara Ake / secretariat to coordinate

Webinar arrangements – purpose, agenda, announcement and collecting input

Webinar purpose

1. inform all stakeholders of the FlexForum, its goal and purpose
2. request input from key stakeholders on the draft outputs of workplan topics A and B

Webinar agenda [see attached document]

- Welcome & karakia [tbc]
- FlexForum origin story, goal and purpose, approach and process
- DER perspective
- Network & market perspective
- Questions, how to provide input and next steps

Announcement of webinar

- scheduled for Wednesday 27 April – announcing on Thursday 14 April or Tuesday 19 April gives 6 working days or 4 working days notice
- announcement material (ie, email / release) will be shared asap

Getting feedback

- Written responses via webpage and email to secretariat
- targeted webinars with key stakeholder groups by arrangement
- 1-1 sessions by arrangement

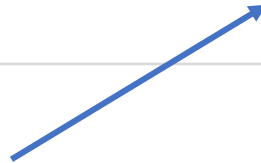
Things needed to deliver the engagement activities:

- webpage – target is for the webpage to go live on Thursday 14 April
- stakeholder contact list – shared on slack (12-04-22)
- draft outputs of workplan topics A and B – endorse at this session
- webinar agenda – endorse at this session
- webinar materials – secretariat to finalise by 21 April in collaboration with speakers
- announcement material

Workplan on a page - progress

	Meeting 0 (17-12)	1 (03-02)	2 (17-02)	3 (03-03)	4 (17-03)	5 (31-03)	6 (14-04)		7 (28-04)	8 (12-05)		9 (26-05)	10 (09-06)	
Topic	Dec	Feb		March			April			May		June		
Governance	Draft TOR	Agree TOR and budget					Mid point review					Establish next steps	Wrap up	
Engagement			Stakeholder mapping				Workshop prep	Engagement workshop 27/04				Event prep		Dissemination event
A. Flexibility needs <i>What and why (drivers)</i>				DER potential (a provider view)	Network & Market potential (a purchaser view)	Value streams and capability			Seek feedback	Address feedback				
B. Product definitions <i>What and how (technical requirements)</i>					Need cases	High level requirements	High level requirements	Seek feedback	Address feedback					
C. Market access and participation <i>Who and how (commercial)</i>							Contracting principles		Contracting principles		Seek feedback	Address feedback		
D. Market opportunities <i>Where and for how much</i>									Payment & compensation		Seek feedback	Address feedback		
E. Practical, scalable and least-regret steps										Implementation				
F. Support ongoing learning and collaboration												Establish next steps	Bring it together	Seek feedback

We are here...



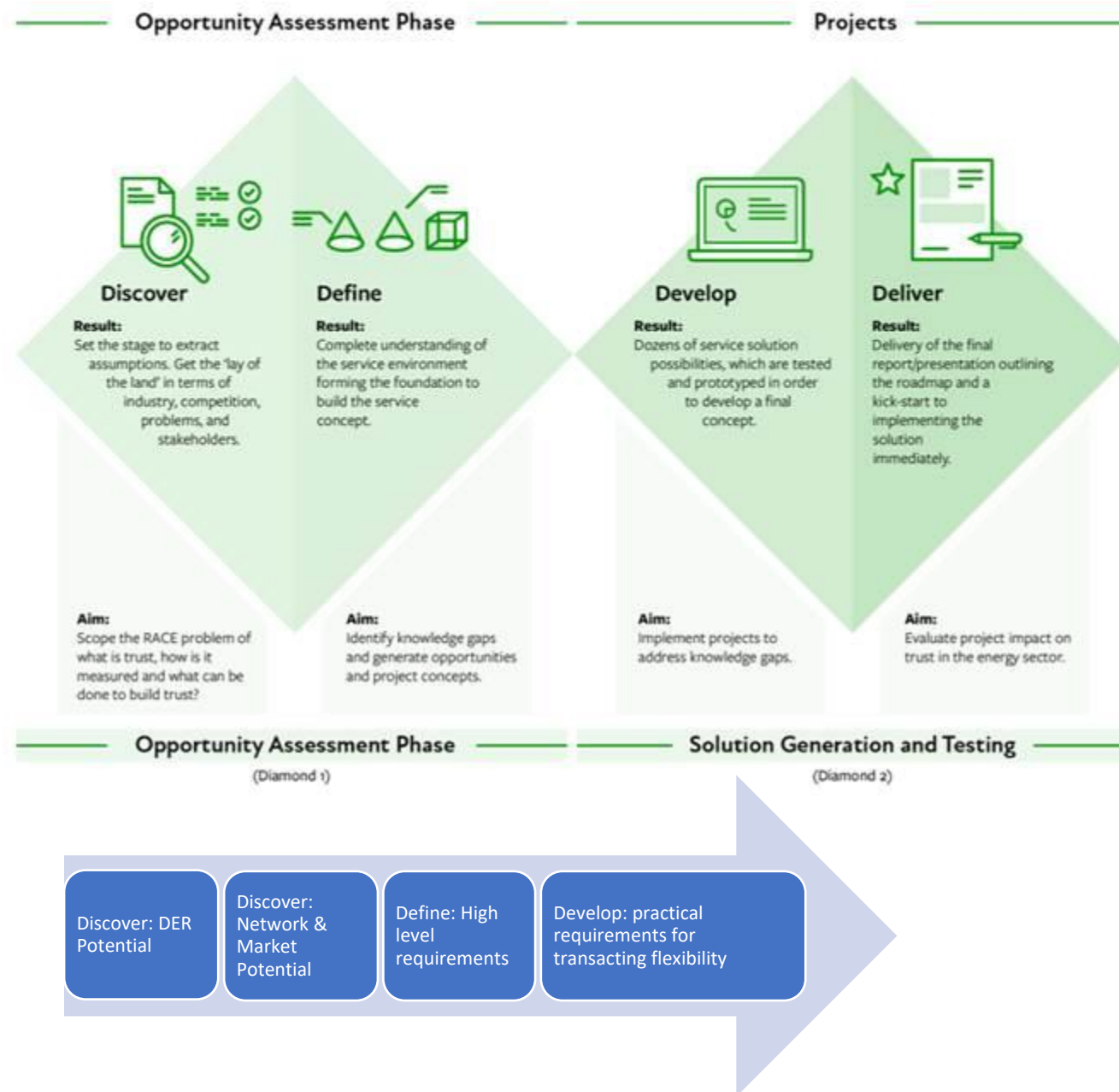
Workplan on a page - update

Where we are at now	See page 12 plan on a page Updates to plan since session V: <ul style="list-style-type: none">• High level requirements discussion extended into session 6• Contracting principles will extend into session 7• Seeking feedback on topics C and D shifted to later in May
Progress since previous session V	<ol style="list-style-type: none">1. Narrative on flexibility needs (workplan topic A) complete. For review at this session2. High level requirements updated following 31/03 discussion. For review at this session3. Speakers being arranged to inform discussion of topic C<ol style="list-style-type: none">1. Bruce Thompson, Greensync at this session2. Octopus Energy – being arranged3. Piclo – being arranged4. UK distribution business – to be arranged
Workplan focus for this session	Focus of this session is workplan topic C: identifying the practical requirements for transacting flexibility <ul style="list-style-type: none">• Initial discussion of topic

Workplan topic C: practical requirements for transacting flexibility

For flexibility to be transacted between the buyer (ie, network operator, system operator, market participant) and the seller of the service (ie, the DER owner or flexibility supplier), there needs to be:

- an agreed mechanism for completing the exchange for each service, eg, bilateral contracts, trading platforms, price response
- basic terms and conditions for the exchange



High-level requirements for transacting flexibility – key questions

These are the key questions relating to the high-level requirements for transacting flexibility identified so far are:

1. What is the product/service/need to be exchanged and is there a marketplace and agreed mechanism for exchange for that product/service/need?
2. What is the mechanism for exchange of the product/service/need? Is the mechanism the minimum viable product? Is evolution likely?
3. Who manages the mechanism for exchange? Is it the buyer of the service or a common platform? Who has the relationship between the DER owner (which includes households and businesses)?
4. How is the product/service/need procured? Is the product procured well ahead of the need or in in 'real-time'?
5. What are the practical requirements for participation? For example, are there requirements relating to the location, size, capability etc of the supplier of the service?
6. What is the benefit of having a record of DER, its capability and who is accessing that capability for what purposes?
7. How does the exchange of value practically occur given the laws of physics? How does the buyer tell the DER owner to provide the service or respond to a specific instruction? How does the DER owner receive the instruction?
8. How do the buyer and seller determine the service has been delivered according to any specified performance criteria? What are the consequences of non-performance? What is the relationship between the consequences of non-performance and the risk of non-performance? How is risk shared between the supplier and the buyer? Is the assessment of risk based on robust and agreed criteria?

Requirements for transacting flexibility: a perspective from Australia

Bruce Thompson, CEO, Greensync, will share some reflections, lessons and next steps from Australia on integrating DER – introduced by Scott Scrimgeour

- How similar is the Australian context?
- Focusing on the requirements for transacting flexibility, how relevant are the lessons to the key questions?

Administration – governance, budget & funding

- Note status of actions from previous sessions