

NCESS Reliability and System Strength Services for the North Country - WS5659204351

EOI - Questions and Answers

Question 1:

The calculation of the system strength (measured in MVA of available fault level) requires specific modelling based on the location and equipment type. Will Western Power be making the data available to perform the modelling on our side, or do we provide an estimate and through the submission process, WP will perform the contribution calculation for the purposes of this process?

Furthermore, is system strength calculated assuming GTN is the node? i.e. the closer electrically to GTN the better the contribution?

Answer 1:

At this stage, the main aim is to have a visibility regarding estimated values to be offered by proponents. You may access our pre-application steady state SWIS PowerFactory Network Model from [Understanding Steady State Study for effective integration with the SWIS](#) which can be used in your modelling to inform your estimate.

System strength is defined as the fault current contribution measured at GTN 132 kV and it is expected that being electrically closer to GTN the better the contribution from the proposed facility.

Link: https://www.westernpower.com.au/products-services/install-something-new/connect-my-home-or-business/transmission-connected-loads-generators/steady-state-studies/?_sqt=steady%20state

Question 2:

Is the 10-year term definite? Can we put forward alternative options?

Answer 2:

Western Power is seeking both short- and long-term NCESS contract terms to enable the most cost-effective arrangement for providing Reliability Services and System Strength Services.

The 10-year term is the minimum for the long-term service. Western Power will also consider longer-term options of 15, 20, or 25 years.

Western Power will also consider proponents wishing to offer short-term services of 1, 2, 3, or 4 years.

If a proponent submits a non-conforming alternative option, it must be accompanied by a proposal that meets the Service Specification at the same time for it to be considered.

Please refer to sections 2.5.1 to 2.5.7 of the draft Service Specification.

Question 3:

Is Western Power attributing system strength to Grid Forming Inverter Base Resources (GFM IBR)? Is there guidance available as to WP's calculation methodology for IBR contribution?

Answer 3:

The development of the system strength (SS) Framework for the WEM is currently underway. The SS Framework report is expected to provide proponents with further information on the methodology used to calculate system strength shortfalls. At this stage, methodologies cannot be provided; however, proponents seeking additional information are encouraged to contact Western Power directly.

Question 4:

What progress is WP expecting in the connection process by an applicant by the time the NCESS application is submitted?

Answer 4:

Western Power does not have any specific expectation regarding how far proponents have progressed in the connection process at the time the NCESS application is submitted. However, progress in this process can impact when a facility is able to come online and begin providing the service.

Question 5:

What support will western power provide with outages and critical project status to allow connection and commissioning before 2029?

Answer 5:

Support from Western Power will depend on where a proponent is in the connection process and what opportunities are available at the time. Western Power cannot guarantee fast-tracking, and each connection application will be assessed on a case-by-case basis.

Question 6:

Is the recording of the NCESS NC market briefing presentation going to be made available online?

Answer 6:

Yes.

Question 7:

Please confirm that Grid Forming Inverter Base Resources (GFM IBR) will be attributed some level of MVA? Just unclear as to methodology at the moment? Can we propose?

Answer 7:

Yes, proponents may propose an approach. However, please be informed that the development of the system strength (SS) Framework for the WEM is currently underway. The SS Framework report is expected

to provide proponents with further information on the methodology used to calculate system strength shortfalls. Should the structure and conditions for the system strength services outlined in the draft Service Specification document be impacted by the outcomes of SS framework development.

Question 8:

Is there a specific duration for the reliability requirement?

Answer 8:

The specific duration for the reliability requirement is set out in the draft Service Specification, section 2.5.9, 2.5.10, 2.5.12, and 2.5.13.

The expected service utilisation figures presented within the draft Service Specification document are based on historical data, noting these represent estimates only as to the projected frequency of outages.

Question 9:

In regards to N-1, is the facility at N-1 the quantity (of both MW and MVA) the amount that will be considered for the bid?

Answer 9:

Western Power aims to secure a service that takes into consideration redundancy; hence bids must comply with the draft Service Specification regarding the redundancy requirements. Evaluation will be undertaken based on the quantities proposed, with consideration given to whether submissions constitute complete or partial offers and whether they fulfill the technical and operational requirements.

In relation to the N-1 redundancy requirement, please refer to Section 3 of the draft Service Specification, specifically clauses 3.1.1 (i) and (ii), as well as the following explanatory note set out in the document.

In essence, where prospective NCESS providers intend to propose the maximum Reliability Service Quantity (i.e. 125 MW, comprising 90 MW for Base Demand and 35 MW for Peak Demand), N-1 redundancy should be appropriately incorporated within both the proposed facility and its connection to the SWIS.

Facilities without redundancy will be considered where partial service quantity is proposed. Under this scenario, Western Power may seek to procure additional reliability service from multiple facilities to meet redundancy requirements.

Question 10:

Would Western Power be open to considering projects which can deliver system strength services prior to October 2029 and system reliability services post October 2029? How would such projects be evaluated? This question assumes the deployment of a mechanical energy storage project which can deliver System Strength Services during Phase 1 of deployment (by operating as a synchronous condenser) and potentially System Reliability Services during Phase 2 with Phase 2 achieving COD post October 2029.

Answer 10:

Yes, it would. The timing of commencement of the proposed services is currently being considered to be from 1st October 2029 **(or earlier where possible)**. An NCESS Service Provider **may offer either a Reliability**

Service or a System Strength Service, or both, provided the relevant technical requirements of the draft NCESS Service Specification are met.

Question 11:

If a Facility is offering only System Strength services, does it need to be a Registered Facility as stipulated in Section 2.2.1 of the Draft NCESS Service Specification Document?

Answer 11:

Any energy producing facility with rated capacity of 10MW and above must be registered. The obligation for NCESS Contract holders is mentioned in Electricity System and Market (ESM) Rules section 5.2A Registration and certification.

Question 12:

While the word “Services” has been capitalized in Section 2.2.2 of the Draft NCESS Service Specification Document, it has not been defined in Chapter 1? How should this term be interpreted? Does it specifically refer to Reliability Services alone or System Strength Services as well? Some of the requirements in this clause are not applicable to a Facility only offering System Strength services. Many of the requirements mentioned in this clause also appear in different sections of the NCESS EOI Submission Form uploaded by Western Power in relation to this NCESS.

Answer 12:

The term “Service” is defined in Table 1: Definitions, under section 1.2 of the Draft Service Specification, and has the same meaning as the term “Services”. “Service” has been defined as:

The services collectively described in paragraph 2.1.1 and 2.2.2.

The term refers to the provision of either the reliability service only, the system strength service only, or both the reliability service and system strength service.

Question 13:

Please specify which capabilities mentioned in Section 2.2.2 of the Draft NCESS Service Specification Document are applicable to Facilities offering only System Strength Services.

Answer 13:

2.2.2 (ii) & (iv) are applicable for only System Strength Service.

Question 14:

Please specify which capabilities in Section 2.2.3 of the Draft NCESS Service Specification Document are applicable to Facilities offering only System Strength Services.

Answer 14:

Neither of them.

Question 15:

“In lieu of the release of a System Strength Report for the SWIS, Western Power assumes that it is likely that the System Strength Service Quantity as requested in this specification will be required to be connected from the year 2030. This assumption is based on the understanding that the Clean Energy Link North project is expected to unlock generation within the Northern Terminal to Three Springs Terminal region. It is also expected that a portion of this generation will make use of Inverter-Based Resource (IBR) generation which will negatively impact the local System Strength in the North Country.” – Based on this text quoted from the NCESS Service Specification Document, does Western Power expect Facilities offering only System Strength Services to connect only by 2030? If so, can proponents assume a longer timeline to achieve COD such as December 2030 for Facilities offering only System Strength Services?

Answer 15:

The expected NCESS Commencement Date is 1 October 2029 or earlier. Western Power will also consider submissions that provide the System Strength Service later than October 2029.

Question 16:

Section 2.6.2 of the Draft NCESS Service Specification Document requires NCESS Service Providers to register as Market Participants. Please clarify if this requirement is applicable to a Facility offering only System Strength Services?

Answer 16:

The Draft Service Specification requires all NCESS Service Providers to be registered as Market Participants as a condition of providing the Services outlined in section 2.1. Any NCESS Service Provider that is not currently registered as a Market Participant must become registered as a condition of providing these Services.

We recommend all potential NCESS Services Providers take the time to understand the obligations relevant to their facility (or facilities). These obligations are outlined in the Electricity System and Market (ESM) Rules.

Question 17:

With reference to Section 3.5.3 of the Draft NCESS Service Specification Document, is there a requirement to maintain on-site personnel for a Facility offering only System Strength Services? Can Section 3.5.3 of the Draft NCESS Service Specification Document be interpreted as a requirement to nominally operate a Facility offering only System Strength Services remotely while arranging for personnel to be available on site within 12 hours of any incidents?

Answer 17:

The NCESS Service Provider must ensure that a technician or expert is on site at the NCESS Service Equipment location within 12 hours of a call-out.

Question 18:

Several items in Section 3.4.1 (i) – Section 3.4.1 (vi) of the Draft NCESS Service Specification Document appear to be irrelevant to a Facility offering only System Strength Services. Please clarify which items are required to be satisfied by Facilities offering only System Strength Services.

Answer 18:

All applicable to System Strength Services except for 3.4.1(vi), unless the System Strength Service is provided by Grid Forming BESS.

Question 19:

The NCESS EOI Submission Form has the following text mentioned multiple times as Guidance Notes under Column E of the sheet “Response”: Failure to provide this information will result in exclusion from the evaluation process. Does this imply that only proponents who fully respond to all the EOI questions will be allowed to participate in the subsequent RFP? In other words, is responding to the EOI a pre-requisite to participate in the RFP? Will Western Power exclude those proponents who do not respond to the EOI from the RFP process?

Answer 19:

In accordance with the NCESS procurement process under ESM Rule section 3.11B, the procurement is structured as a two-stage process comprising:

1. the NCESS Expression of Interest (EOI), and
2. the Call for NCESS Submissions (Tender).

Both stages are open to all interested proponents, and there is no shortlisting of suppliers between the EOI and the Tender stages.

Participation in the EOI is not a prerequisite for participation in the subsequent Tender. Proponents who do not submit an EOI response will still be able to participate in the Call for NCESS Submissions (Tender).

The primary purpose of the EOI is to provide proponents with early visibility of the proposed materials and to enable Western Power to gather feedback. This feedback may inform refinements to the Service Specification prior to its finalisation for the Tender stage.

The guidance note stating that “failure to provide this information will result in exclusion from the evaluation process” applies specifically to the completeness of submissions at the relevant stage. In particular, for the Tender stage, failure to provide required information will result in a submission being excluded from evaluation, as this information is necessary for a fair and complete assessment.

Question 20:

In the NCESS EOI Submission Form, the sheet “NCESS Service Specification” only mentions Reliability in Column C. Does Western Power expect Facilities only providing System Strength Services to provide any responses in the aforementioned sheet?

Answer 20:

Western Power acknowledges the feedback regarding Column C in the “NCESS Service Specification” sheet. The intent of this column is largely duplicative, as the relevant requirements are already captured in Column B in accordance with the Service Specification.

Respondents are requested to provide responses in accordance with Column B, which reflects the services sought by Western Power in the Service Specification. Western Power will correct Column C prior to releasing the Call for NCESS Submissions.

Question 21:

How are Facilities providing only System Strength Services expected to provide the relevant numerical in the sheet titled “Pricing & Response” (part of the NCESS EOI Submission Form)? Columns D, E and F only refer to Reliability.

Answer 21:

For System Strength cost please use column G & H.

Question 22:

Is there an expected number of hours the System Strength Services need to be provided annually? In the absence of such estimates, it is challenging for proponents to estimate Variable Costs associated with the operation of Facilities only providing System Strength Services.

Answer 22:

At the moment Western Power does not have the expected number of hours the System Strength. If proponent would like to provide the annual Fixed cost for System Strength, please provide in column D (noting that the word Reliability is on top).

Question 23:

Section 2.5.9 of the Draft NCESS Service Specification Document states that operation needs to be for 4 continuous weeks while providing the Base Reliability Service and/or 4 continuous hours while providing the Peak Reliability Service while Sections 2.5.12 and 2.5.13 of the Draft NCESS Service Specification Document state aggregate values rather than continuous operation values. How should this be interpreted?

Answer 23:

Section 2.5.9 defines the **minimum availability obligations** of the Service Provider throughout the **NCESS Contract**, requiring the service to be available when called upon in support of both planned and unplanned network events.

Section 2.5.12 specifies the **maximum aggregate duration** for which the service is **expected** to be utilised **each year** in response to **unplanned network events**.

Section 2.5.13 specifies the **maximum aggregate duration** for which the service is **expected** to be utilised **each year** in response to **planned network events**.

Example:

The service must remain available when called upon, in accordance with the requirements set out in **Section 2.5.9**. When the **Peak Demand Reliability Service** is activated, whether in response to a planned or unplanned outage event, it must be capable of operating continuously for a minimum of **4 consecutive (contiguous) hours** within the daily period from **2:00 PM to 10:00 PM**.

With respect to **unplanned outage events**, the Peak Demand Reliability Service is expected to be utilised only on an infrequent basis. Accordingly, the aggregate utilisation of the service for such events is not expected to exceed **8 hours per calendar year**.

Question 24:

Could you please clarify how Western Power will assess the configuration the N-1 requirement for the Reliability and System Strength Services for the North Country - WS5659204351 EOI

Is N-1 based on two or more transformers with NCESS service assets connected to them behind the meter on a single connection to the SWIS or are multiple network connections required to the SWIS to the one parcel of land required where the service will be provided from?

Answer 24:

N-1 refers to remaining capacity following the loss of the biggest single unit or the biggest step-up transformer.