NEM five-minute settlement and global settlement

Interim industry readiness reporting: Round #1 results

A progress report for the 5MS/GS Readiness Working Group

23 August 2019

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1. Background and context

Interim readiness reporting - Background

- Prior to formal readiness reporting commencing in February 2019, NEM participants, through the 5MS/GS Program Consultative Forum (PCF), requested AEMO to establish *interim* readiness reporting to establish a baseline of participant preparedness.
- Interim readiness reporting focuses on the level of establishment of respondent implementation projects. Subsequent, readiness reporting will focus on the progress of these projects.
- The first round of interim readiness reporting commenced on 18 July 2019.
- AEMO collated participant information through voluntary surveys, and reported anonymised survey findings at an aggregate level to the Readiness Working Group (RWG), PCF and also the Executive Forum.
- This progress report will be published on AEMO's website.

Interim readiness reporting – Context

This progress report:

- Presents key findings and considerations or recommendations developed after an analysis of responses to a 5MS/GS readiness survey of RWG members (including NEM registered participants and metering service providers).
- Relies entirely on the information provided by the responding participants in this initial survey, as at July 2019.
- Provides a generalised snapshot of the declared readiness of those respondents as at the survey date only, and may not be indicative of industry preparedness generally.

Interim readiness reporting - Timeline

- There will be three rounds of interim readiness reporting, administered according to the timeline outlined in Table 1 below.
- AEMO plans to consult with the industry on the Industry Readiness Reporting Plan. Engagement will commence on 24 September and the final paper will be released on Friday, 13 December. The consultation timeline is outlined in Table 2 below.

Table 1: Interim readiness reporting plan

Interim reporting	Survey released	Responses due	Results distributed	Discuss at RWG meeting
Round 1	Thu, 18 Jul	Wed, 31 Jul	Tue, 6 Aug	Tue, 6 Aug / Tue, 27 Aug
Round 2	Mon, 2 Sep	Fri, 13 Sep	Mon, 23 Sep	Tue, 24 Sep
Round 3	Mon, 4 Nov	Fri, 15 Nov	Tue, 26 Nov	Thu, 28 Nov

Table 2: *Industry readiness reporting plan* consultation timeline

RWG engagement	Draft paper published	Draft paper comments due	Final paper
Tue, 24 Sep	Thu, 31 Oct	Thu, 21 Nov	Fri, 13 Dec

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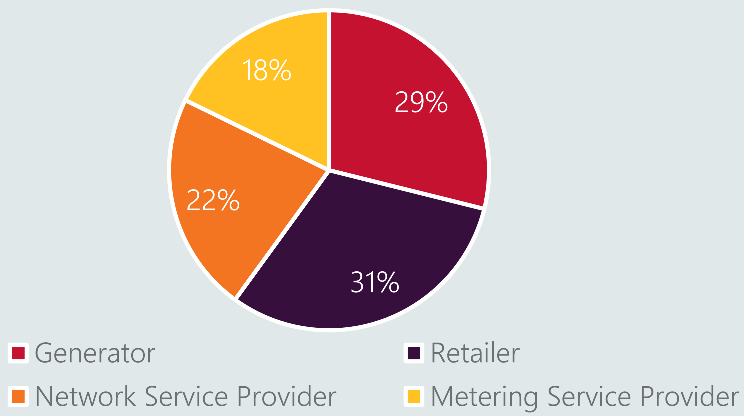
2. Key findings

Interim readiness reporting - Round #1

- On 18 July 2019, the first Interim Readiness Reporting survey was sent out to the 44 organisations in the RWG
- A total of 34 organisations responded with 45 submissions, representing a response rate of 77%. Some organisations responded with multiple submissions to represent different participant types.
- Two organisations responded after the survey deadline, and one organisation did not respond through the survey link. These responses are included in this analysis, although they were not included in briefings to the RWG, PCF and Executive Forum that were held in the week beginning Monday 5 August 2019.

Figure 1: Interim Readiness Reporting – Participant respondent type (%)



Observations:

- Responses were received from an even mix of participant types, with generators, retailers, NSPs and MSPs each representing approximately a quarter of total responses.
- Based on the response rate and mix of respondents, the survey responses represents a reasonable cross-section of the industry

Considerations

- Enable participants to provide more detail on participant type to allow more targeted analysis (e.g. MSPs to respond as MP, MC or MDP as appropriate)

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Key findings (1)

- While there is strong management awareness of 5MS / GS requirements and participants have commenced activities to establish 5MS & GS programs, few have well established programs.
  - Almost all respondents are in the early stages of developing project plans and are commencing activities to establish a project team.
  - All respondents have commenced considering funding for their respective programs. However only a handful have fully considered funding.
- 5MS programs are further advanced relative to GS.
  - Almost all participants have at least a small degree of overlap between their GS and 5MS IT program; half of respondents have fully integrated programs.
- In general, Metering Services Providers' programs are the least progressed. Relative to other participant categories, this could be a result of:
  - metering procedures package 2 still being under consultation
  - the scope and complexity of the required changes
- Availability of internal resources and complexity of upgrading systems are the most common participant concerns

Key findings (2)

- Participants highlighted the dependency of their program development on AEMO artefacts and delivery timing. A few participants noted some uncertainty in scope as Metering Package 2 is still under consultation.
- Participants outlined that it is too early in program to know if they will be ready/prepared for industry testing and market trials and the scope and timing of this testing is a risk being flagged.
  - There was some confusion on whether intention of question was on willingness or readiness status to participate in industry testing and market trials.
- Most respondents have commenced engagement with vendors, however this engagement is not well advanced
- Majority of respondents have commenced impact assessments on market procedures, commercial operations and agreements, internal business processes and standing data/meter transition. Market procedures is the most progressed category, with almost half of respondents already reasonably considering procedure impacts.

Key risks

The following key risks were raised by a significant proportion of respondents:

- Internal resourcing and systems
  - Availability and capacity of internal resources
  - Complexity of upgrading systems
  - Ability to secure resources to complete program implementation
- AEMO Procedures and Technical Specifications delivery
  - Challenges to progressing without final documentation
  - Dependencies between AEMO artefacts and industry program design
  - Potential for AEMO delays
- Early phases of project planning
  - Details to be provided following detailed impact assessment and project development
- Vendor capacity
  - Availability and resourcing capacity

Other risks identified

The following other risks were raised by a few respondents:

- Short testing and market trial period
- New rules changes / projects impacting capacity to deliver
- AEMO readiness and transition planning
  - Increased focus on industry issues required
- Impact of increased data on internal systems
- Physical meter / meter software upgrades

These risks have been raised through reporting, will be reviewed at the RWG and escalated as required.

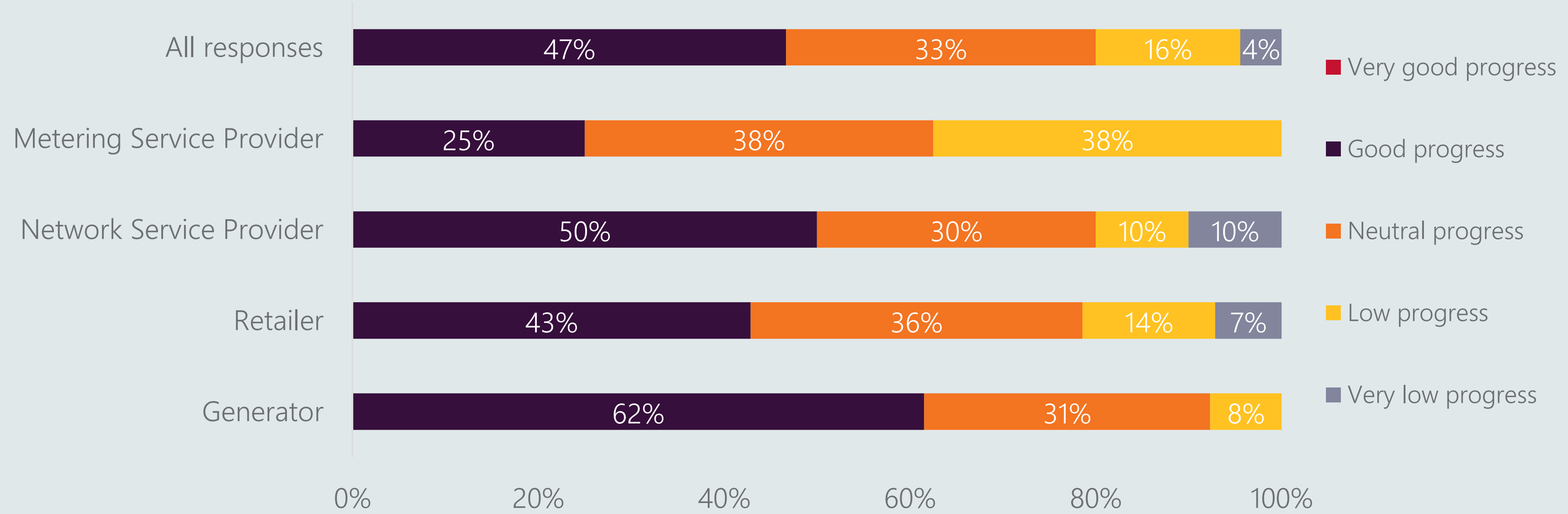
Risk management

- New readiness risks and issues identified by the RWG or its subsidiary focus groups will be escalated to the PCF for inclusion in and management through the overall *Industry Risks and Issues Register.*
- The Industry Risks and Issues Register can be found at: https://aemo.com.au/Electricity/National-Electricity-Market-NEM/Five-Minute-Settlement/Program-Management/Program-Consultative-Forum
- In managing risks and issues, the PCF may assign actions to the RWG or its focus groups to carry out.

3a. Results – Overall program status

Overall program status – 5MS

Figure 2: What is the overall status of your organisation's program, taking into account planning, budget, resourcing, issue and risk management, and governance etc. for 5MS:



Observations:

- 80% of respondents reported at least Neutral or Good progress on their overall 5MS program status. Only 20% reported either Low or Very Low progress on their 5MS program.
- MSPs are slightly less progressed, with 63% Neutral to Good progress, compared to an average of 84% for other categories. This could be a result of metering procedures package #2 (MP2) still being in the consultation phase, or the scope and complexity of the required changes relative to other participant types.
- Generators are the most progressed participant type. This could be a result of the scope and complexity of the required changes relative to other participant types.

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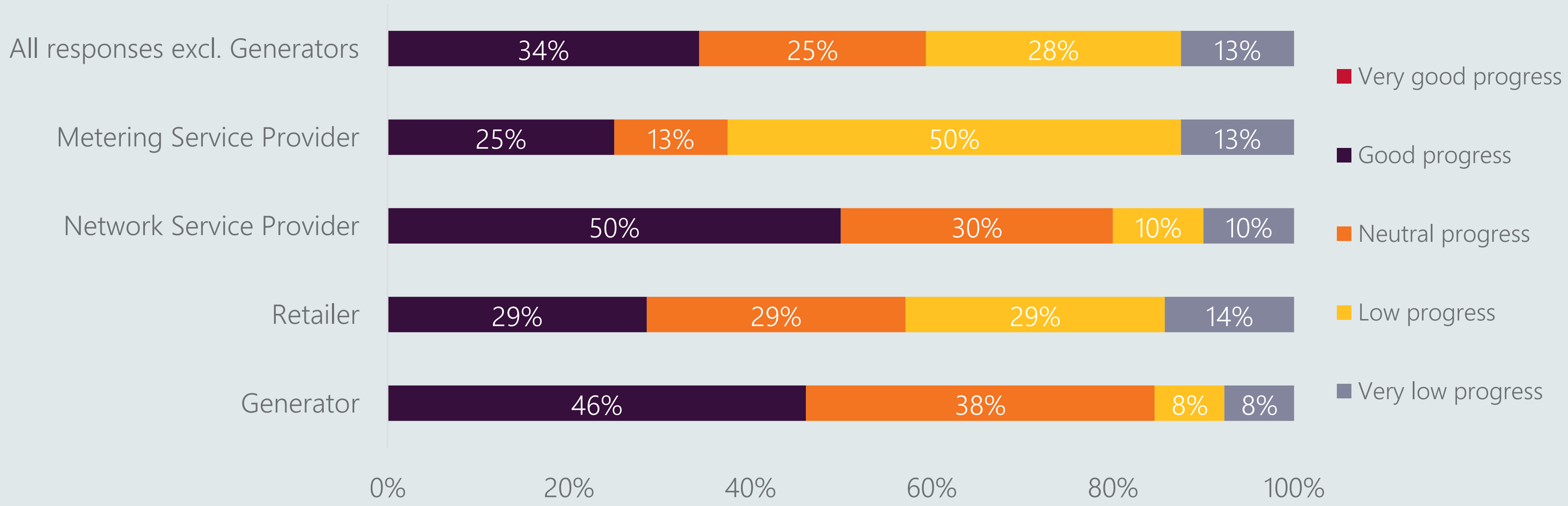
Overall program status – GS

Figure 3: What is the overall status of your organisation's Program, taking into account planning, budget, resourcing, issue and risk management, and governance etc. for GS:



Observations:

- 59% of respondents reported at least Neutral or Good progress on their GS program status. GS programs are less progressed as compared with 5MS programs. This could be a result of the Global Settlement rule being made in December 2018 (as compared with November 2017 for 5MS), and/or metering procedures package 2 pending finalisation.
- Global Settlement is not relevant to generators however they were also invited to respond to this question. Generator responses are still shown however are omitted in the consolidated 'All responses' analysis.
- MSPs again slightly less progressed, with 38% Neutral to Good progress, compared to an average of 74% for other categories.

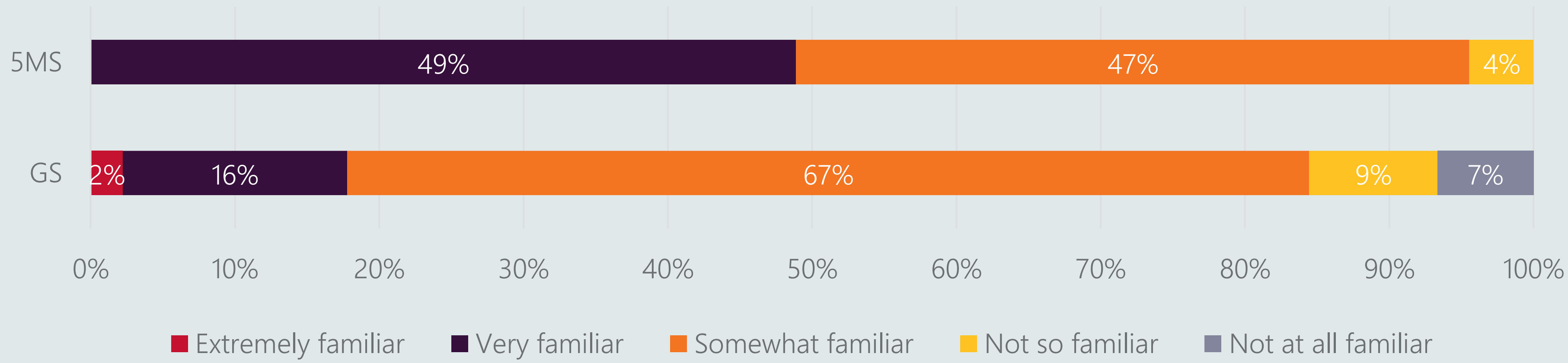
Considerations:

- Include a 'not relevant' response option for GS related questions in next survey.

3b. Results – Program establishment

Project establishment - Executive level understanding of scope of change required - 5MS & GS

Figure 4: For your organisation, what is the Executive Management's level of understanding of the scope of change required under 5M, GS:



Observations:

- 96% of executives are at least somewhat familiar with 5MS changes, with 46% 'very familiar'.
- There is slightly less understanding of GS changes, with 85% 'somewhat familiar' with GS changes, but only 18% at least 'very familiar'.
- Some participants, mainly generators, noted in other questions that GS was not relevant to their organisations. A 'not relevant' response was not available in this question but will be made available in next survey.
- A number of participants noted that they had established executive steering committees.

Considerations:

Include a 'not relevant' response option for GS related questions in next survey.

Project establishment – Executive level understanding of scope of change required - 5MS & GS

Figure 5: What is the overall status of your organisation's Program, taking into account planning, budget, resourcing, issue and risk management, and governance etc. for 5MS:

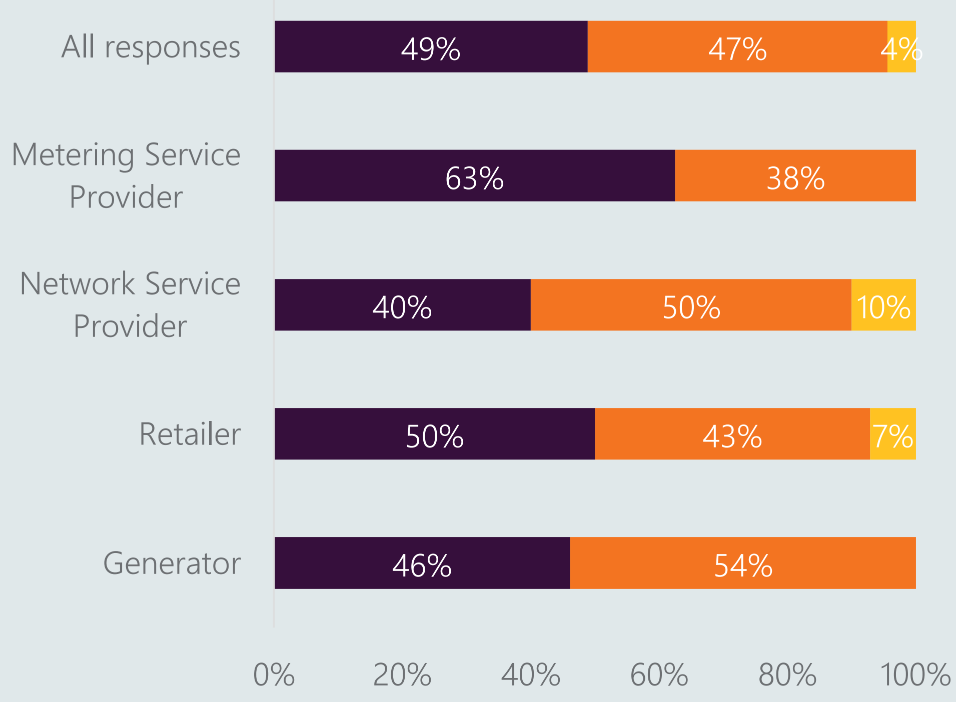
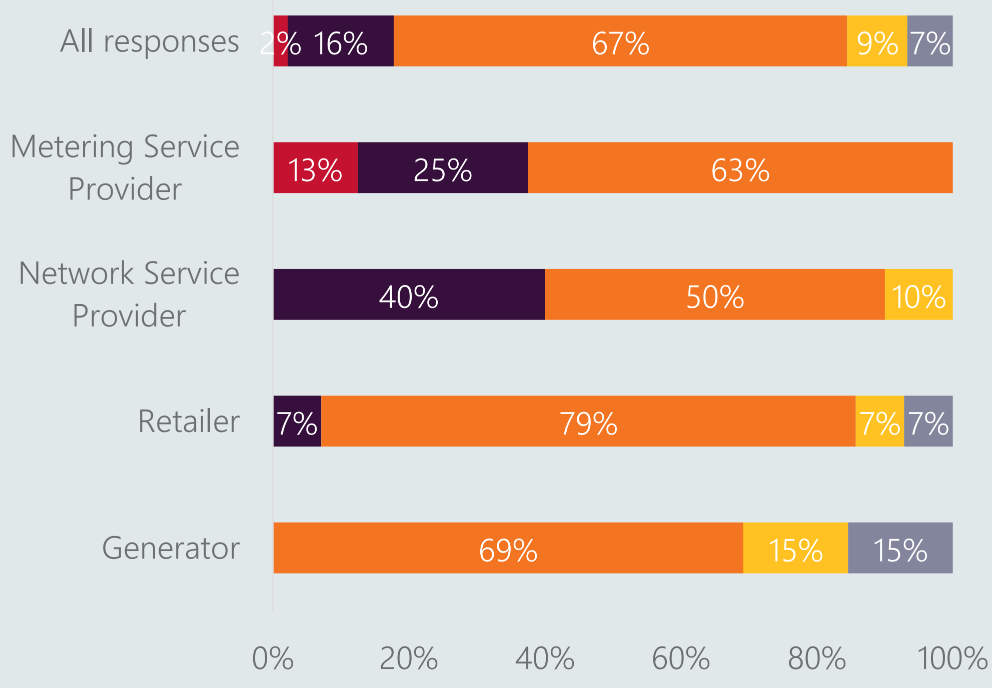


Figure 6 : What is the overall status of your organisation's Program, taking into account planning, budget, resourcing, issue and risk management, and governance etc. for GS:



Extremely familiar · Very familiar · Somewhat familiar · Not so familiar · Not at all familiar

Project establishment – Funding considerations

Figure 7: Has funding for implementation activities been considered by your organisation for 5MS, GS:

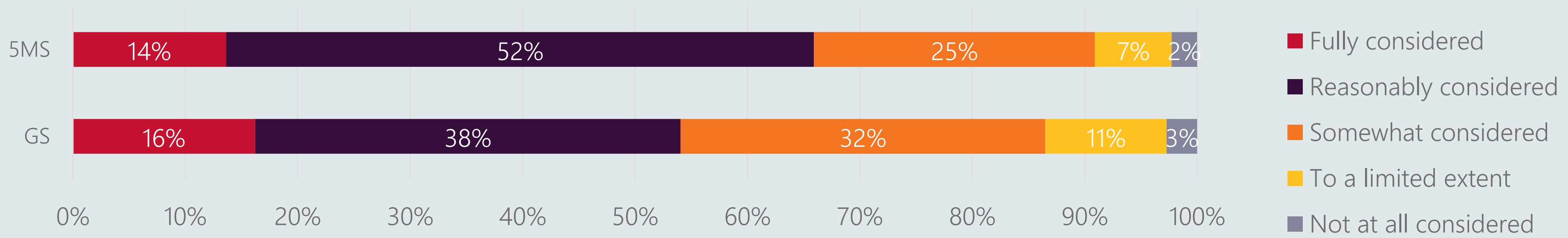
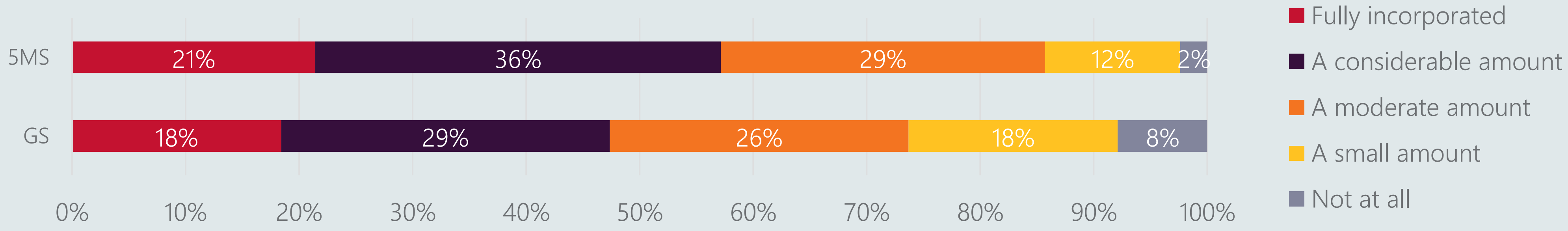


Figure 8: To what extent has the identified funding requirements been incorporated into funding cycles for 5MS, GS:



Observations:

- All respondents have started considering funding for implementation activities, with 91% of respondents indicating funding is at least 'somewhat considered' for 5MS, and 86% for GS. However, only 14% and 16% have 'fully considered' funding for 5MS and GS.
- A number of participants commented that funding for 5MS & GS is provided in stages.
- Some participants commented that they are awaiting more information from AEMO on Global Settlement from the metering procedures package 2 consultation to further consider funding for their program.
- A few generators, MSPs and NSPs noted that Global Settlement is not relevant to their organisation. These responses were not included in the analysis presented in figure (7) and (8).

Project establishment – Funding for implementation activities, by participant type

Figure 9 : Has funding for implementation activities been considered by your organisation for 5MS:

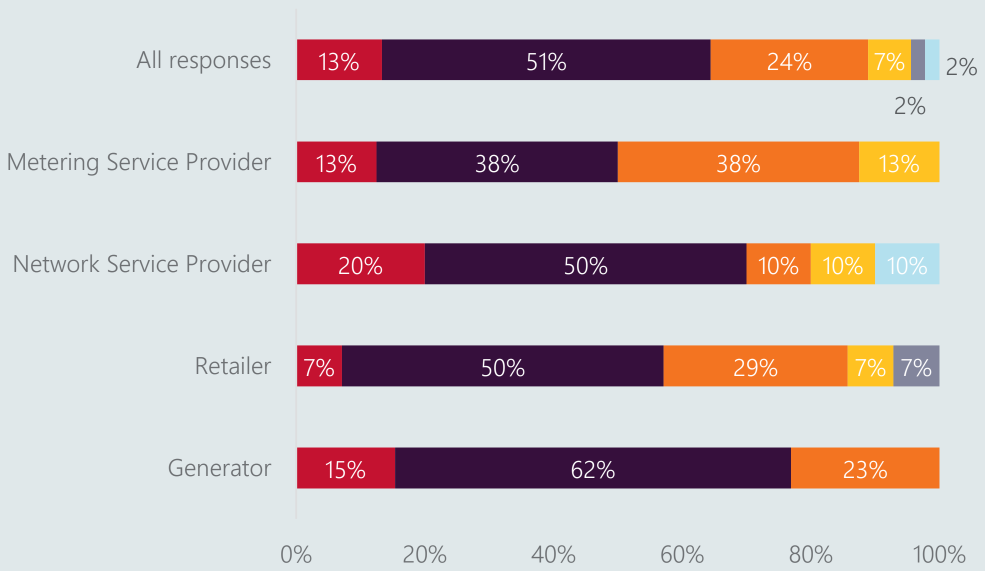
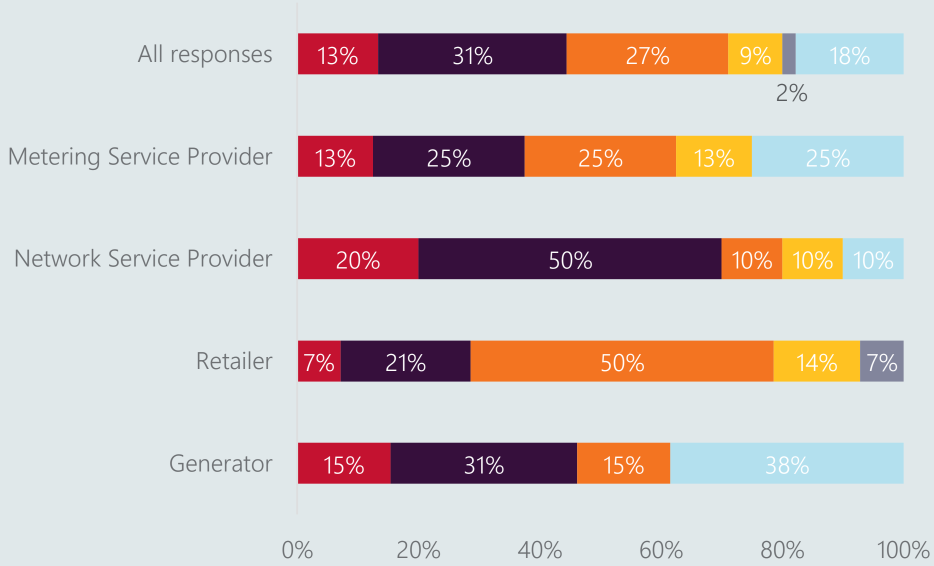


Figure 10 : Has funding for implementation activities been considered by your organisation for GS:



■ Fully considered ■ Reasonably considered ■ Somewhat considered ■ To a limited extent ■ Not at all considered ■ Not relevant

Project establishment – Project plan and project team establishment

Figure 11: To what extent has a project plan been developed by your organisation for 5MS & GS:

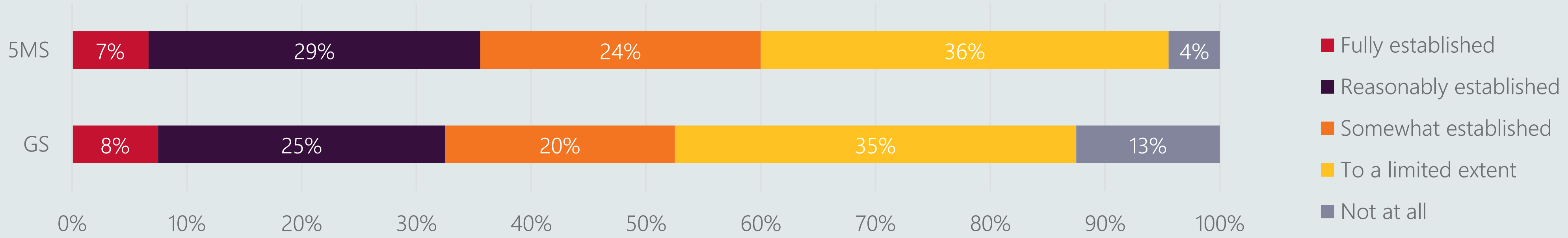
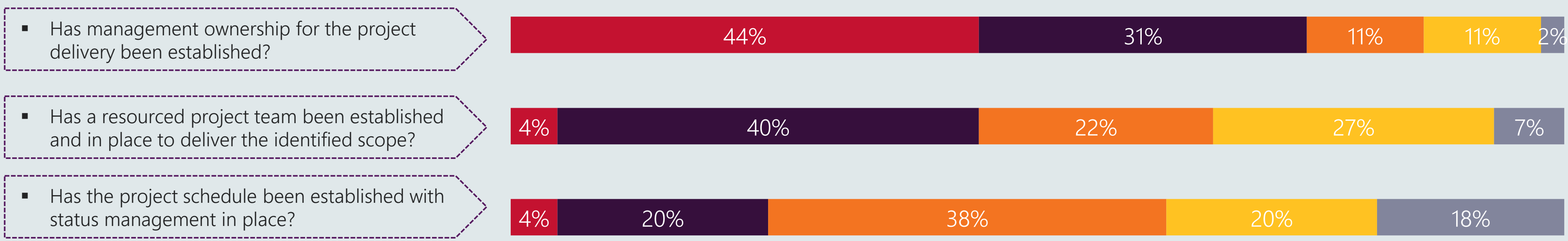


Figure 12: In relation to Project Establishment, to what extent:



Observations:

- Almost all respondents have started developing project plans for 5MS (96%) and GS (88%).
- Management ownership for project delivery has been ‘fully established’ by almost half of respondents (44%) and at least ‘reasonably established’ by three quarters of respondents (75%).
- Most participants have commenced activities to establish a project team (93%) and project schedule with status management (82%), however only a select few have fully established teams and plans (4%).

3c. Results – IT delivery approach

IT Delivery Approach – Extent of establishment of IT delivery approach

Figure 13: To what extent has the IT delivery approach been established to deliver the identified system changes for 5MS:

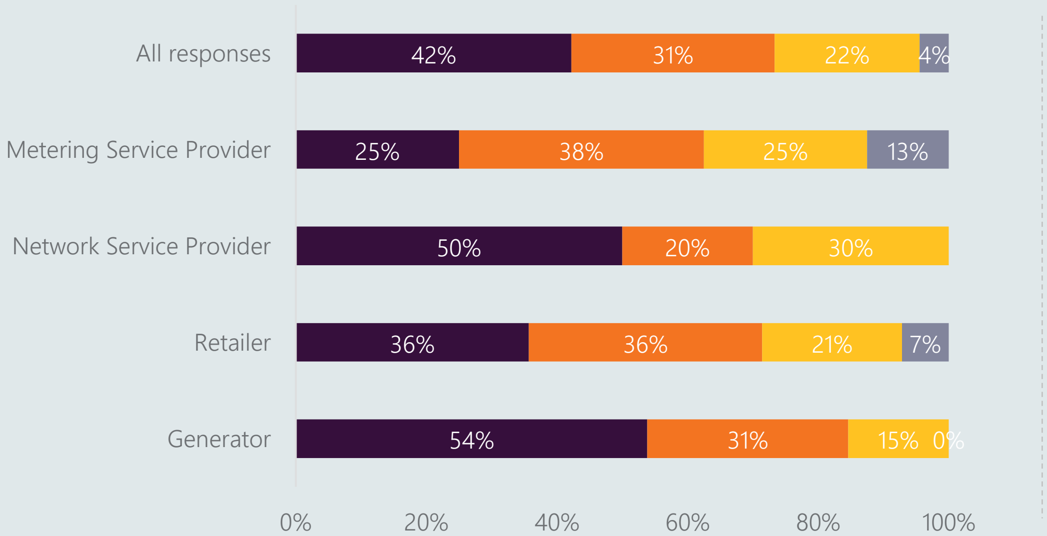
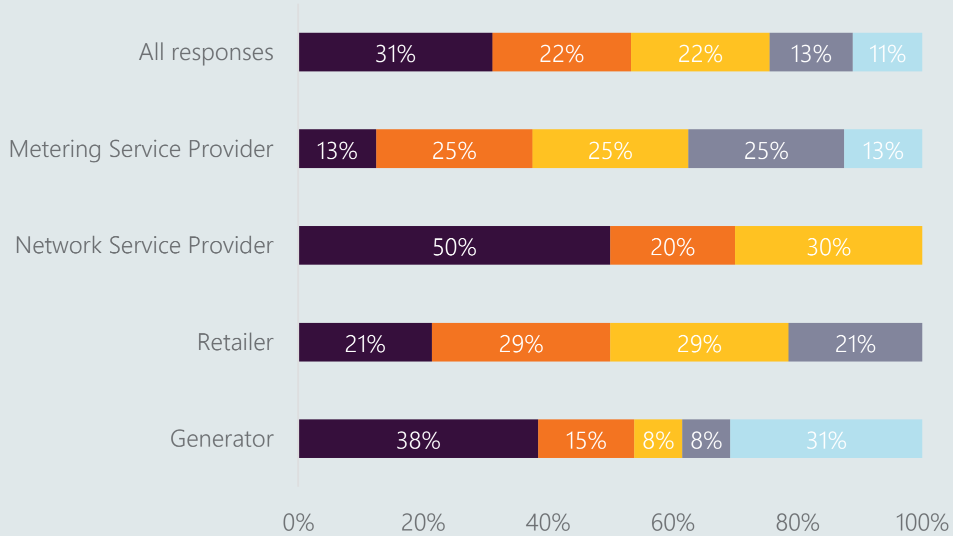


Figure 14: To what extent has the IT delivery approach been established to deliver the identified system changes for GS:



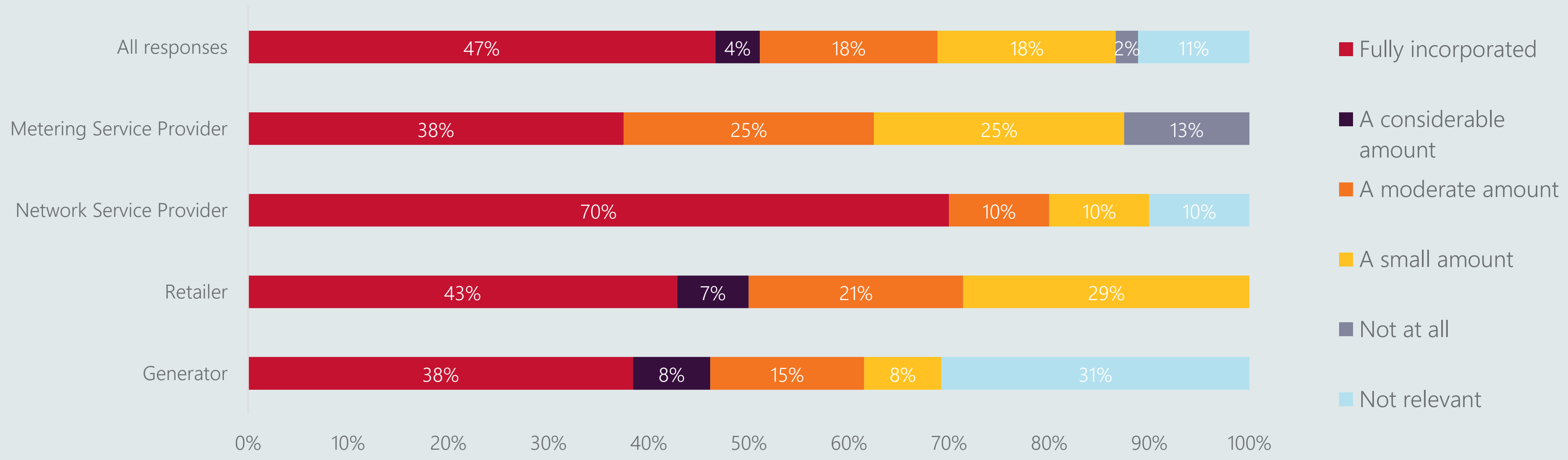
Fully established | Reasonably established | Somewhat established | Established to a limited extent | Not at all established | Not applicable

Observations:

- The IT delivery approach has been established at least to 'a limited extent' for 96% of respondents for 5MS, and 76% for GS.
- Retailers have a better established 5MS IT delivery approach (38% 'reasonably established') compared to GS (23% 'reasonably established').

IT Delivery Approach – Extent that 5MS and GS IT delivery programs are combined

Figure 15 : To what extent are your IT delivery programs for 5MS and GS combined:

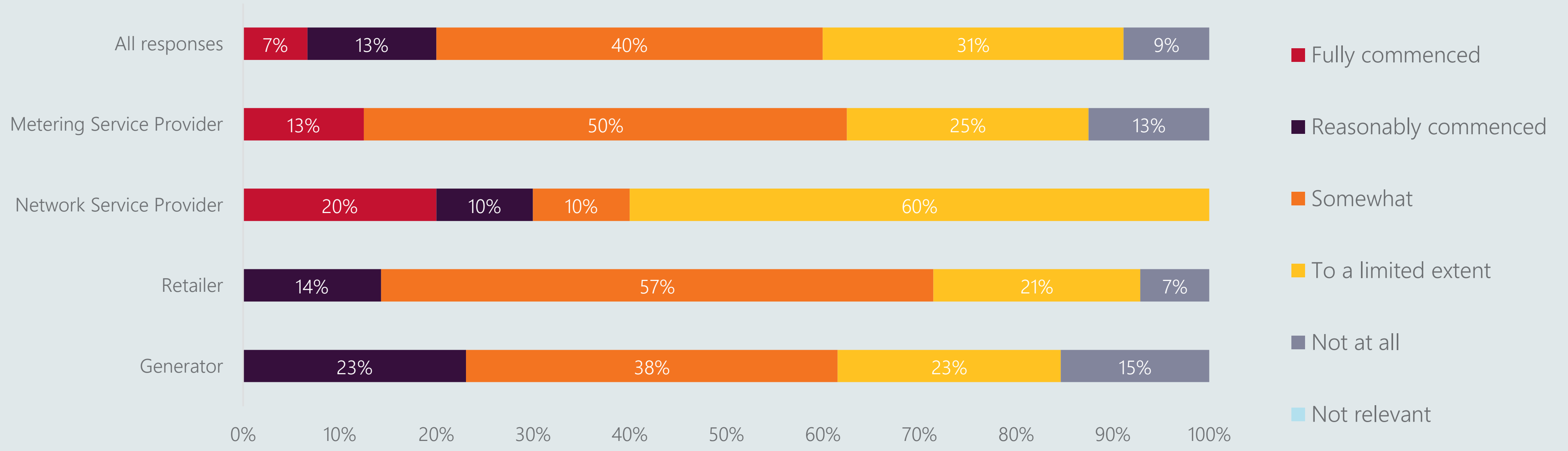


Observations:

- Almost all respondents (98%) have IT delivery programs that are at least combined to a small extent for GS and 5MS delivery.
- 47% of all respondents have fully combined IT delivery programs for 5MS and GS.
- Network Service Providers are most likely to have integrated 5MS and GS programs, with 70% reporting fully incorporated IT delivery programs.

IT Delivery Approach – Extent that project has commenced activities

Figure 16 : In relation to your IT delivery approach, to what extent has the project commenced activities:



Observations:

- Almost all respondents have commenced activities (91%) to a limited extent, however progress is in the early stages, with 22% reasonably commenced activities, and only 7% have fully commenced activities.
- Wide spread of responses, with the proportion of generator and MSPs yet to commence activities representing the same proportion as those that have fully commenced activities.

IT Delivery Approach – Extent of vendor engagement and incorporation into delivery approach

Figure 17 : To what extent has your organisation engaged with vendors and service providers about possible impacts arising due to 5MS & GS?

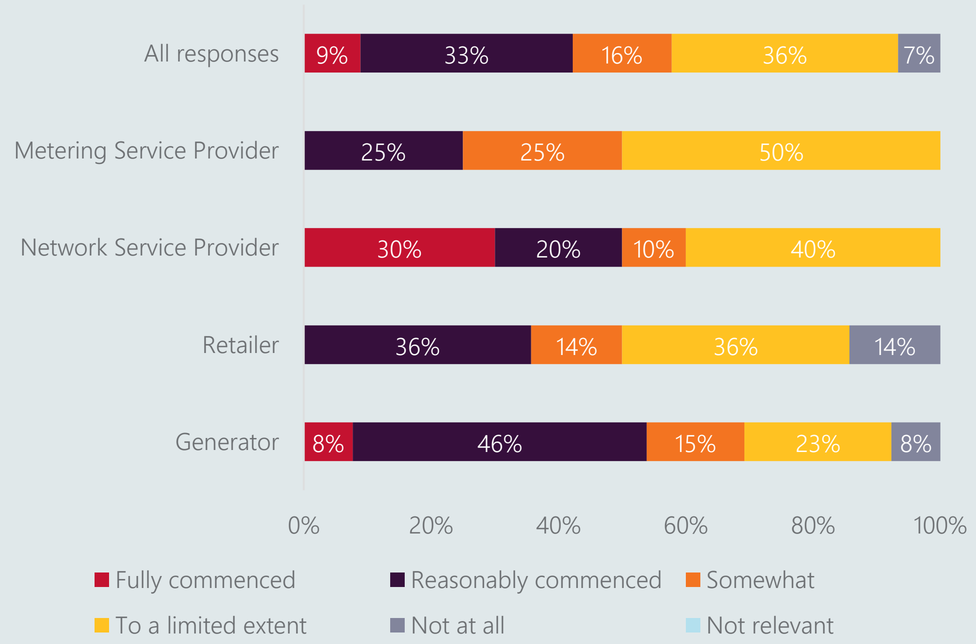
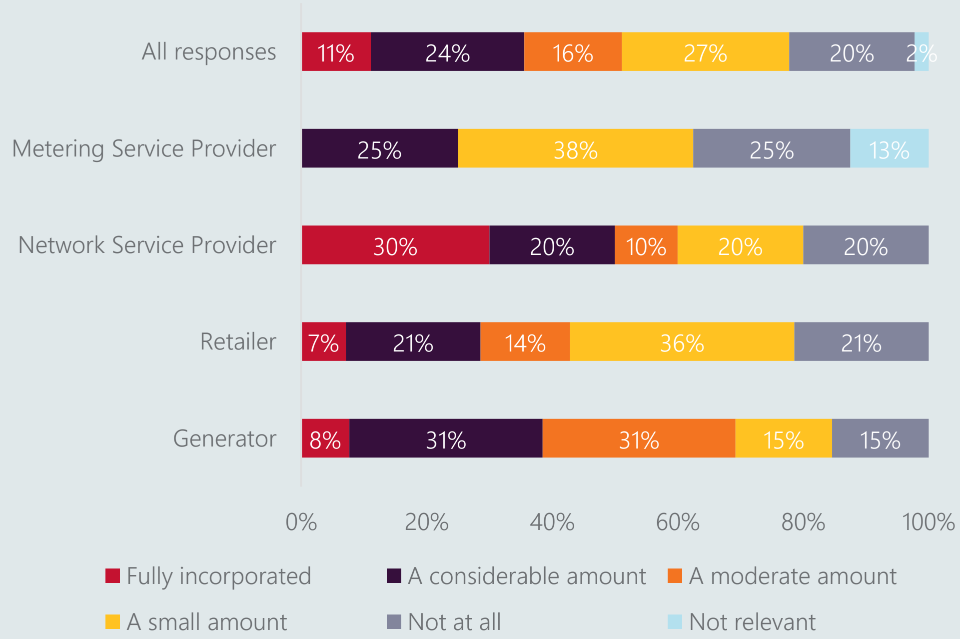


Figure 18: To what extent have vendor activities and upgrades been incorporated into the project delivery approach?



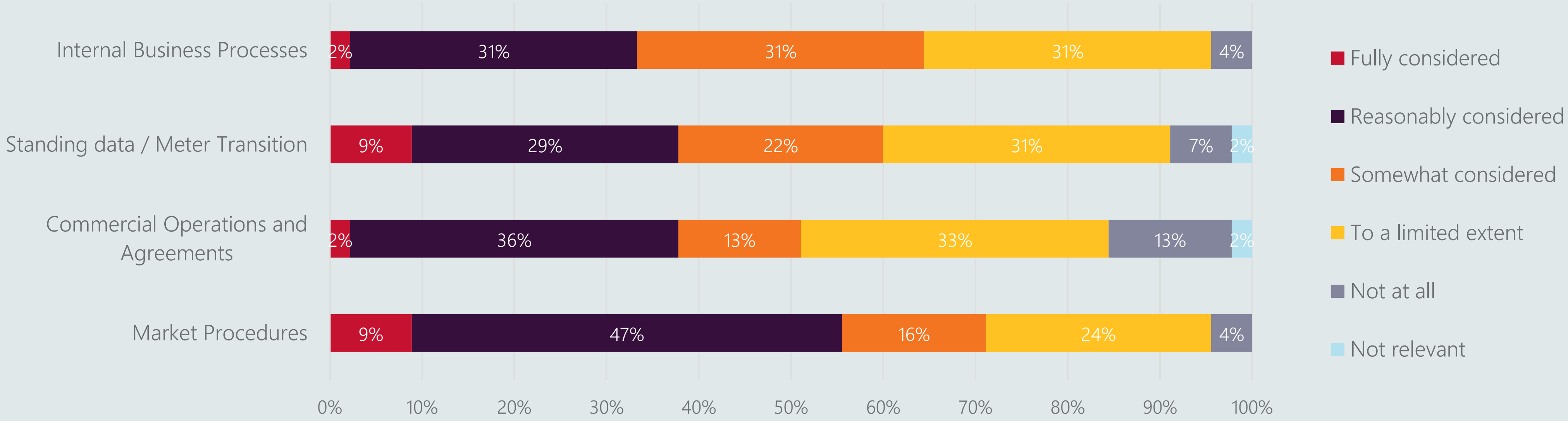
Observations:

- Almost all (93%) of respondents have engaged with vendors to a limited extent on possible impacts of 5MS and GS. However only 9% have fully engaged with vendors.
- Half of respondents (51%) have incorporated vendor activities and upgrades into the project delivery approach at least to a moderate amount.

3d. Results – Impact assessments

Impact Assessments – Extent that impact assessments have been performed

Figure 19 : For the below areas, to what extent has impact assessments performed to date considered:

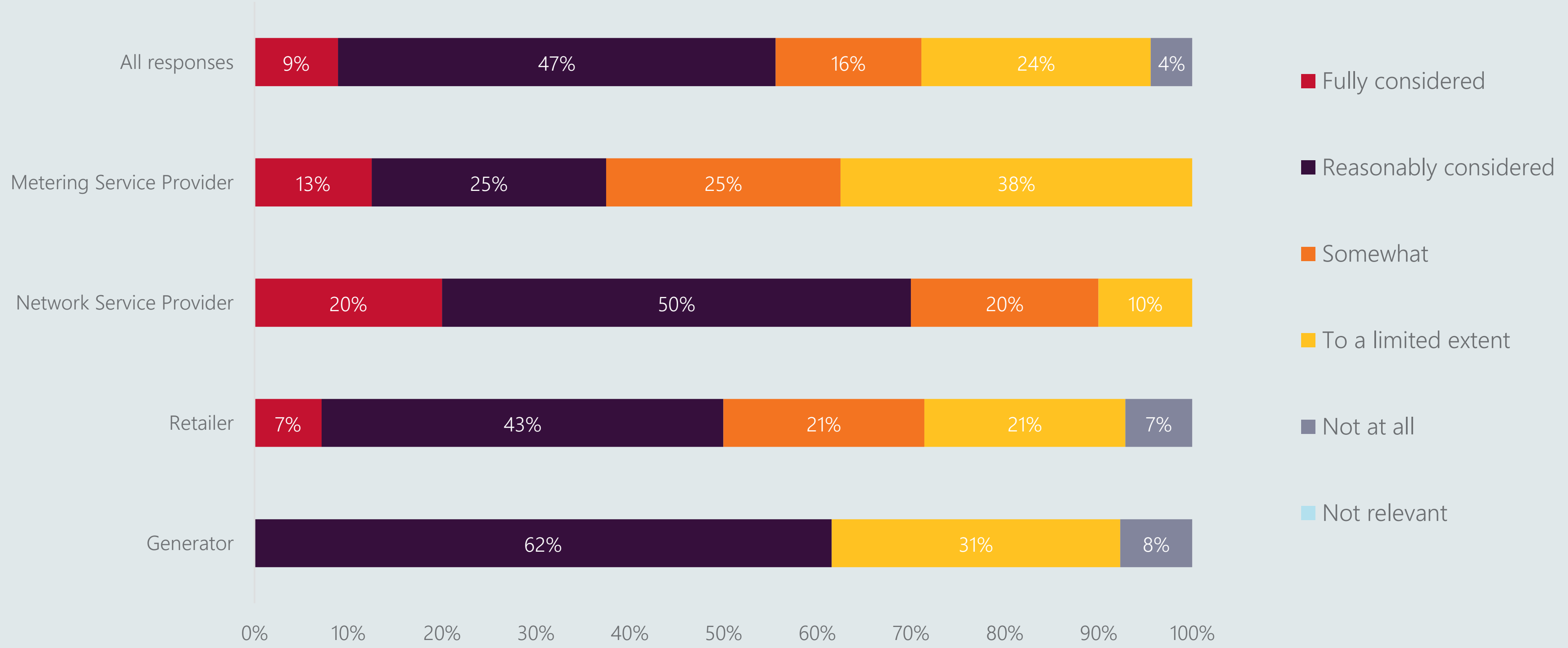


Observations:

- Majority of participants have commenced impact assessments on Internal Business Processes (96%), Standing data / Meter Transition (91%), Commercial Operations and Agreements (84%) and Market Procedures (96%).
- Impact assessments on Market Procedures are well advanced compared to other categories, with 56% of respondents already reasonably considering impacts to Market Procedures, compared to 36% for other categories.

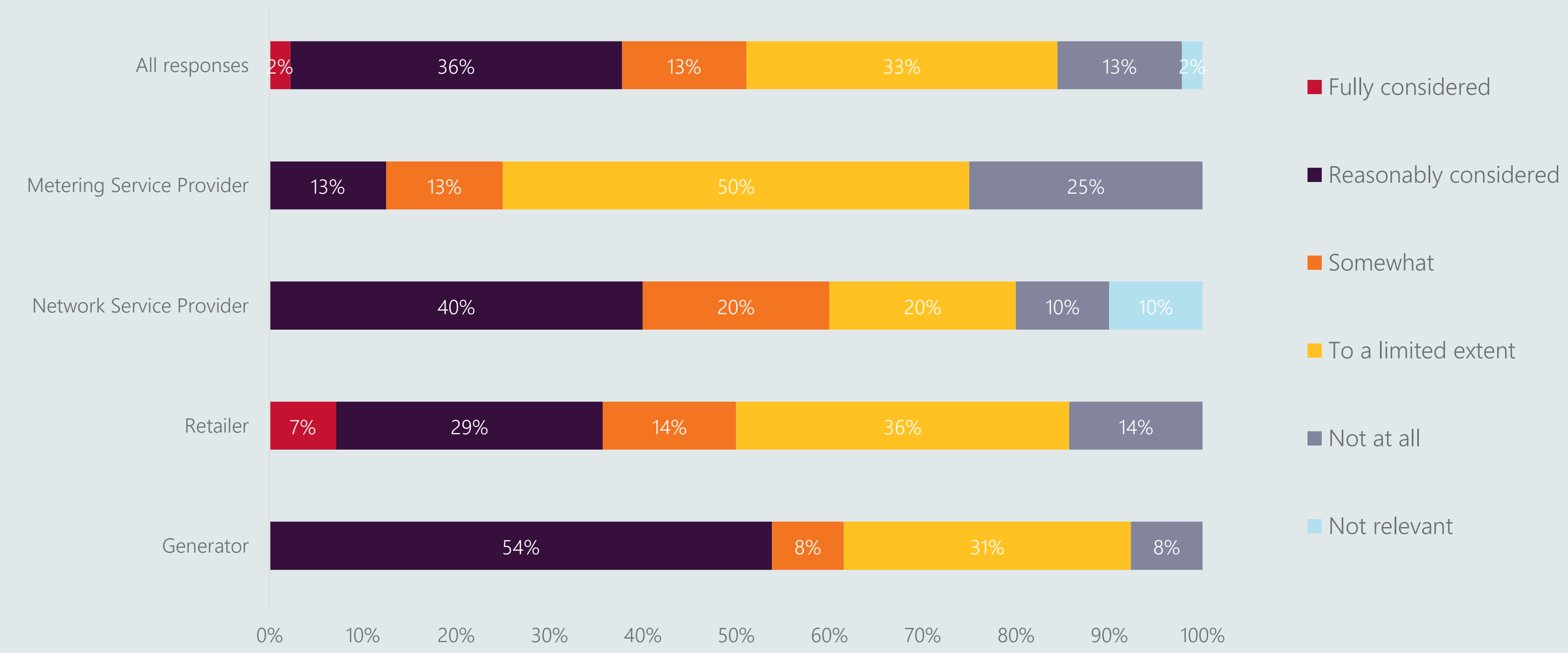
Impact assessments – Market procedures

Figure 20 : To what extent has impact assessments performed to date considered Market Procedures:



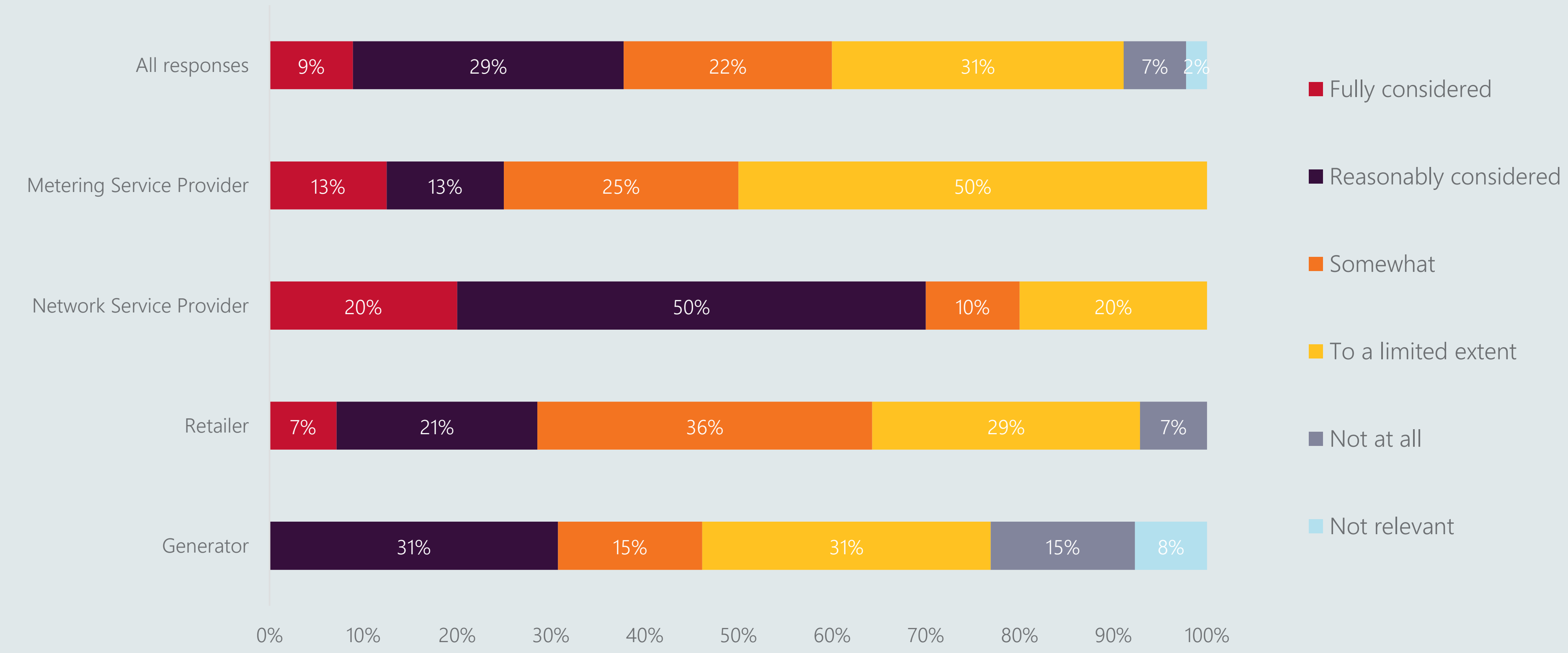
Impact assessments – Commercial operations and agreements

Figure 21 : To what extent has impact assessments performed to date considered Commercial Operations and Agreements:



Impact assessments – Standing data and meter transition

Figure 22: To what extent has impact assessments performed to date considered Standing data / Meter Transition:

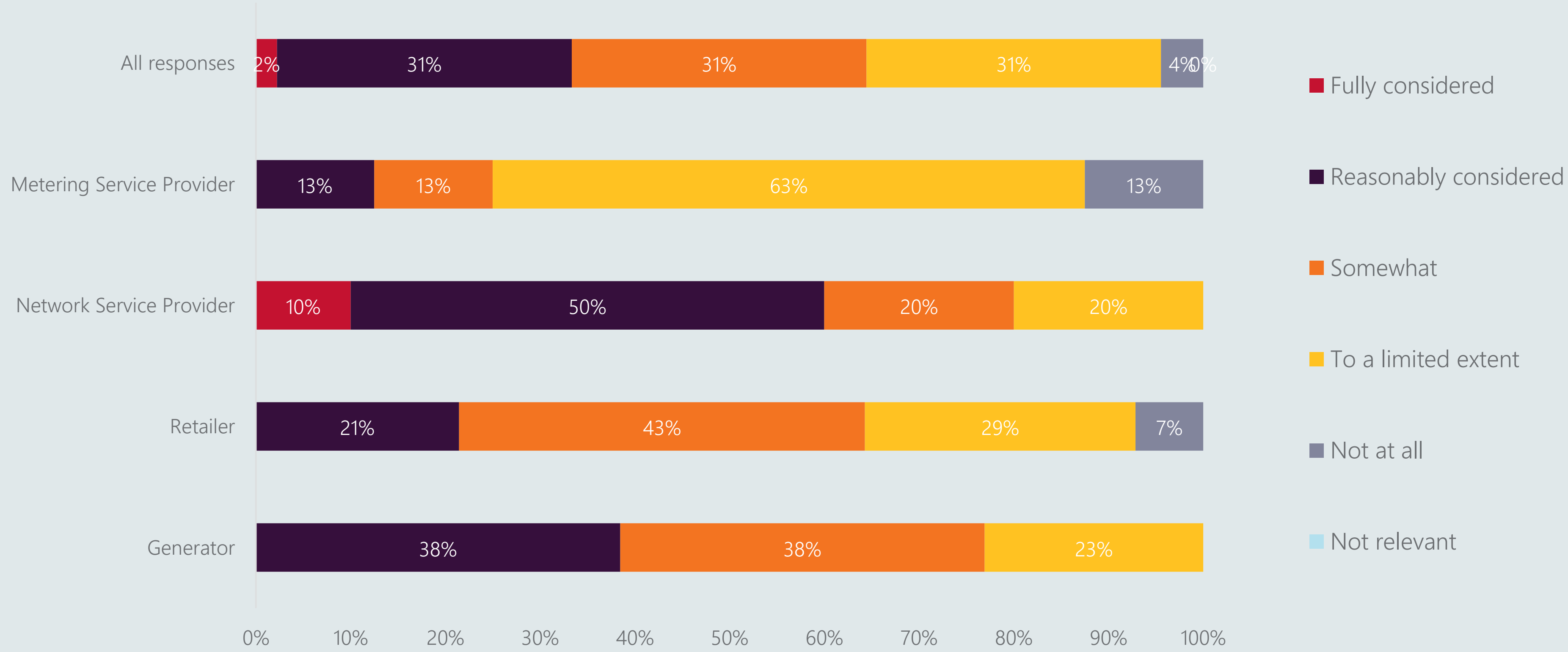


Observations:

- All MSPs have considered impact assessments on Standing Data and Meter Transition to a limited extent. However progression is low, with only 26% reasonably considering the impacts.

Impact assessments – Internal business processes

Figure 23: To what extent has impact assessments performed to date considered Internal Business Processes:



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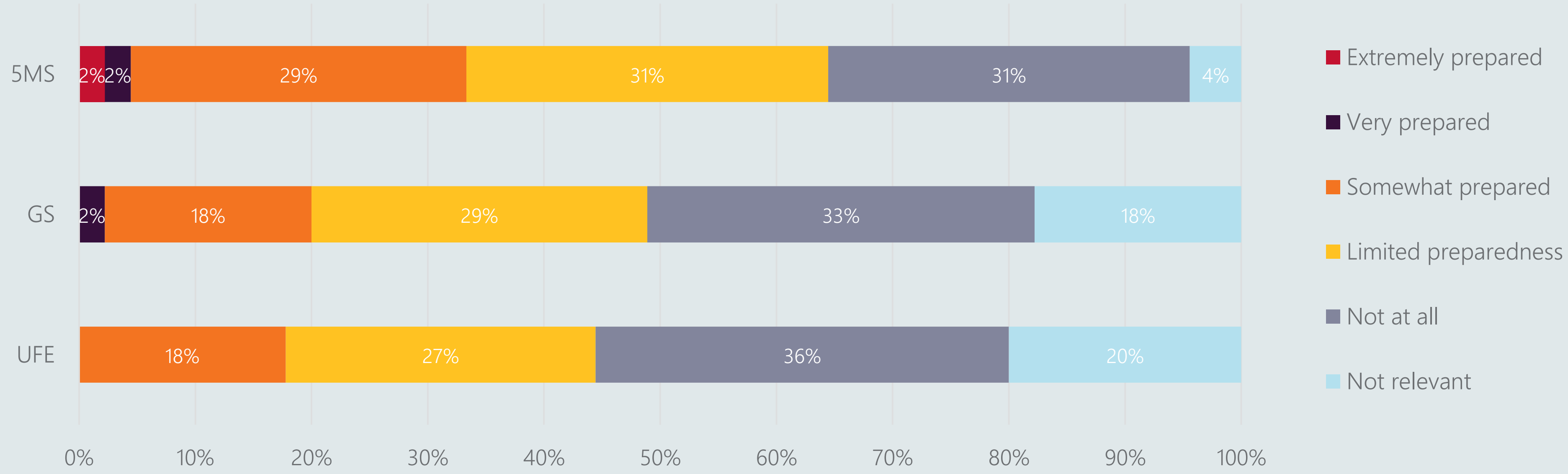
3e. Results – Market and industry preparedness

Market and industry preparedness – Preparedness to participate in industry testing and market trials

Figure 24 : How prepared is your organisation to participate in industry testing and market trials for 5MS, GS and UFE:



Observations:

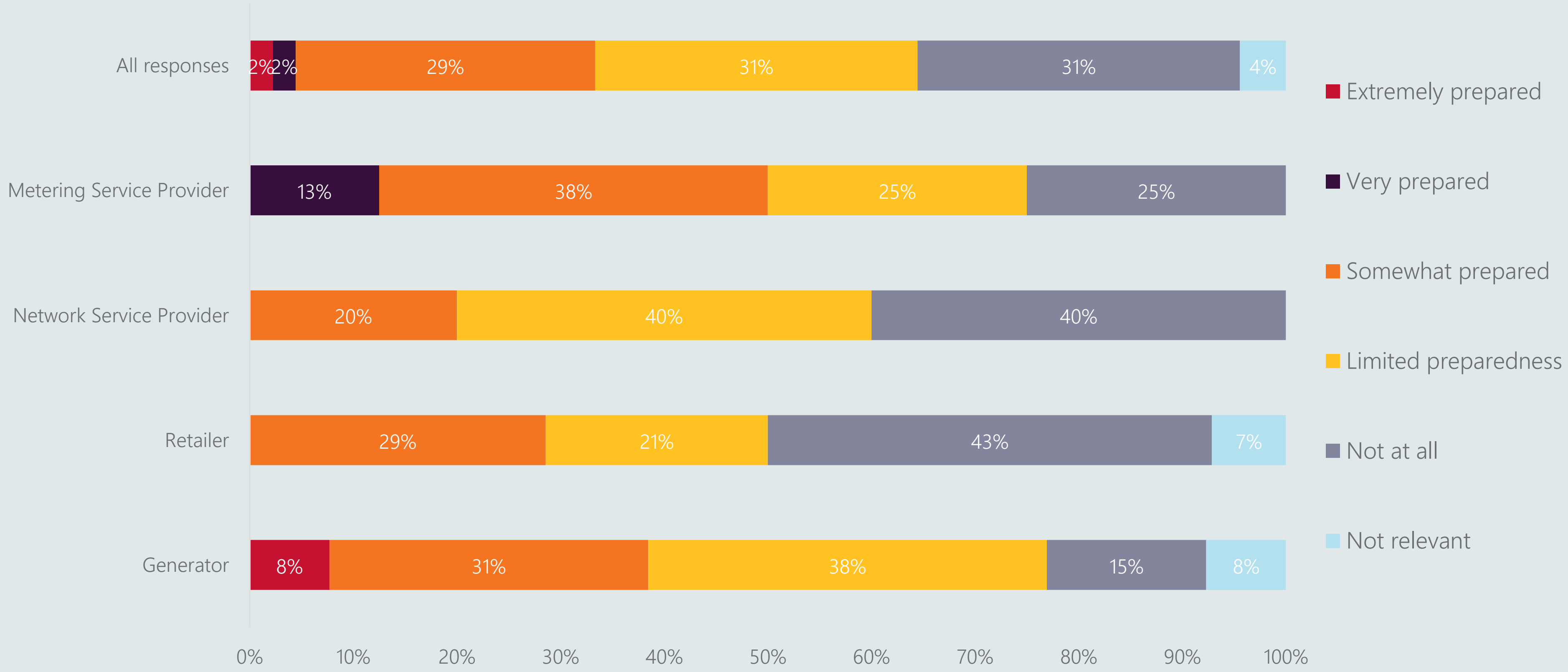
- Many respondents are still not ready to participate in industry testing and market trials, with only 36% somewhat prepared for 5MS testing, and 22% and 20% somewhat prepared for GS and UFE testing.
- Feedback was received that it is too early to tell if respondents are ready/prepared to participate in market and industry testing.
- Some participants noted that it was unclear if the question relates to readiness status or willingness to participate in industry testing and market trials

Considerations:

- Reword the question around an organisation's confidence that it will be ready to participate in industry testing and market trials. For example: 'How confident are you that your organisation will be ready to participate in Industry Test and Market Trial from the start of 2021?'

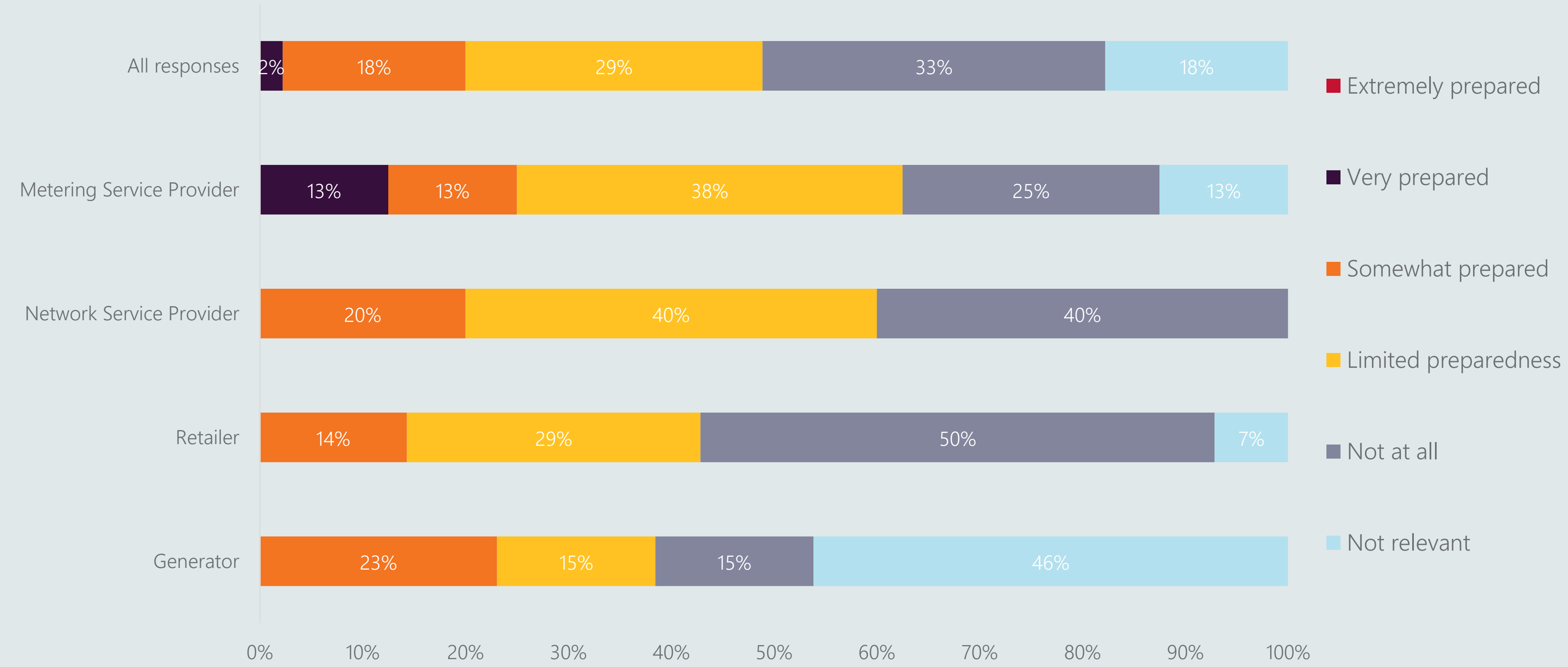
Market and industry preparedness – 5MS

Figure 25 : How prepared is your organisation to participate in industry testing and market trials for 5MS?



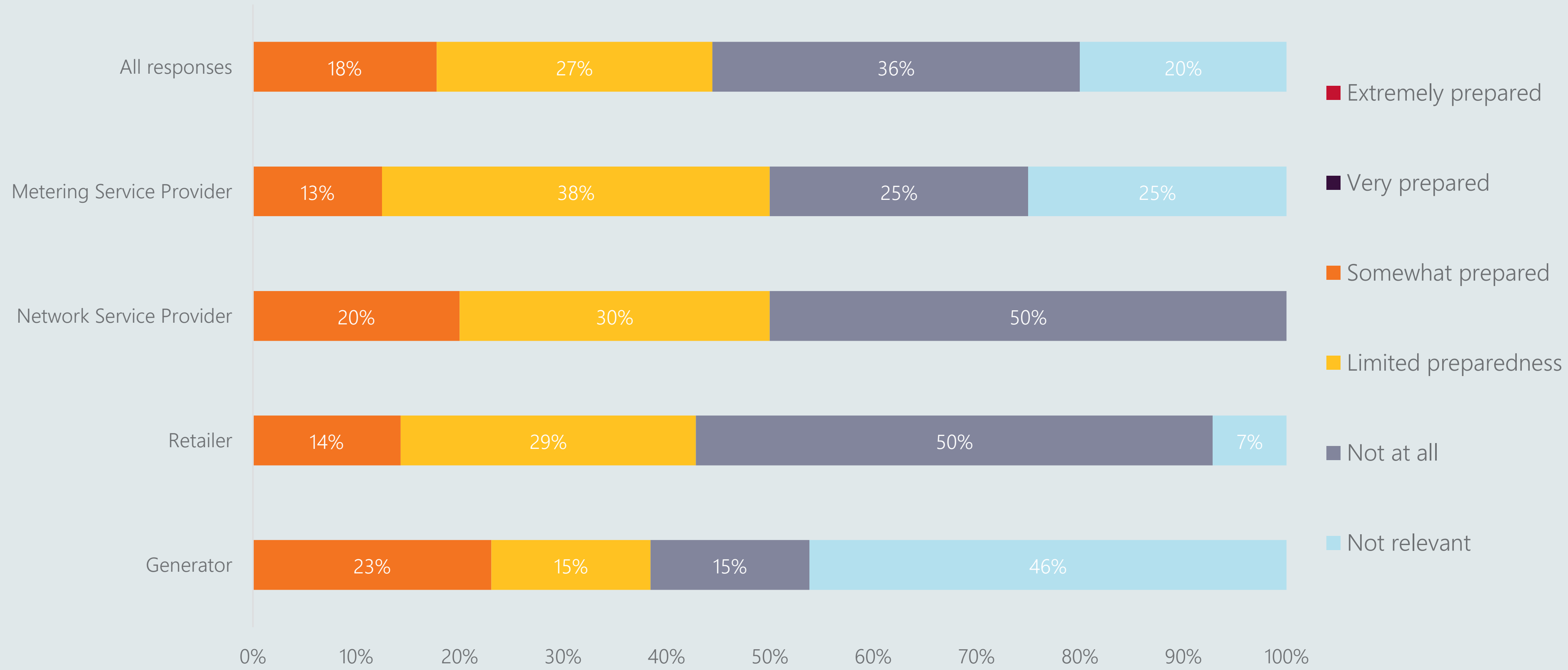
Market and industry preparedness – GS

Figure 26 : How prepared is your organisation to participate in industry testing and market trials for GS?



Market and industry preparedness – UFE

Figure 27 : How prepared is your organisation to participate in industry testing and market trials for UFE?



4. Glossary

Glossary

Term	Definition
5MS	Five-minute settlement
AEMO	Australian Energy Market Operator
GS	Global settlement
MC	Metering coordinator
MDP	Metering data provider
MP	Metering provider
MP2	Metering procedures package 2
MSP	Metering service provider
NEM	National electricity market
NSP	Network service provider
PCF	Program consultative forum
RWG	Readiness working group
UFE	Unaccounted for energy

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