

# **New electricity information exchange protocol – EIEP4A: Medically Dependent Consumer Information**

Decision paper

26 February 2025

## Executive summary

The Electricity Authority Te Mana Hiko (the Authority) is improving the information exchange between retailers and distributors so medically dependent consumers receive the right level of care and consideration during power outages.

To achieve this, the Authority has introduced a new regulated electricity information exchange protocol EIEP4A: Medically dependent Consumer Information (EIEP4A). This will improve the consistency, reliability and timeliness of information sharing, and protect consumer privacy by preventing unnecessary information from being shared.

EIEP4A builds on existing industry practices and support retailers' requirements under the Consumer Care Obligations (Obligations) from 1 April 2025.

The new protocol is a response to feedback distributors shared during consultation on the Consumer Care Obligations on challenges they faced when sharing information under an existing protocol.

During consultation on the proposed new EIEP4A, industry participants advised the existing voluntary EIEP4: Customer Information (EIEP4) form was not consistently applied. In some cases, this led to outdated or incomplete data being shared. The EIEP4A protocol introduces a form which aims to improve information exchange between retailers and distributors to better serve medically dependent consumers.

The Authority has also refined the EIEP4A itself following feedback, including clarifying the relationship between EIEP4A and the unregulated EIEP4. This change reduces the potential for any data conflicts between the two protocols and clarifies that EIEP4A data takes precedence over EIEP4 data.

In addition, the Authority expects retailers to provide distributors who notify consumers of outages, EIEP4 and EIEP4A at the same time. The Authority will monitor the effectiveness of these arrangements and may consider taking further action to benefit consumers.

Full details of the Authority's response to feedback received on the Proposed EIEP4A Medically Dependent Consumer Information consultation paper and our final decision are set out in this paper.

## Next steps

The requirement to share information about medically dependent consumers comes into effect on April 1, 2025. The Authority thanks stakeholders for their continued engagement on the Consumer Care Obligations work.

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# 1. Purpose

- 1.1. This paper:
- (a) sets out the Authority's final decision to introduce a new electricity information exchange protocol (EIEP), EIEP4A: Medically Dependent Consumer Information (EIEP4A)
  - (b) responds to feedback from consultation
  - (c) outlines the process for implementation.

# 2. Context for the Authority's decision

## **The Authority has introduced the Consumer Care Obligations**

- 2.1. In December 2024, the Authority introduced the Consumer Care Obligations (Obligations), a set of minimum standards that all retailers must comply with if they sell electricity to residential consumers. The Obligations will ensure consumers can expect a consistent, standard level of care regardless of which power company they choose. Two key protections (prohibiting retailers from disconnecting customers they know to be medically dependent and requiring any fees or charges to be reasonable) came into effect on 1 January 2025. The remaining obligations will take effect from 1 April 2025.
- 2.2. The Obligations can be found in new Part 11A of the Electricity Industry Participation Code 2010 and replace the previous voluntary Consumer Care Guidelines.

## **The Obligations will require retailers to share specific information with distributors**

- 2.3. Part 8 of the Obligations includes requirements to protect medically dependent consumers. From 1 April 2025, clause 51 of the Obligations will require:
- (a) retailers who are traders to share information about medically dependent consumers with distributors
  - (b) other retailers to pass information about medically dependent consumers to the responsible trader, who then shares information with the distributor.
- 2.4. The intent of clause 51 is to ensure distributors have visibility of medically dependent consumers, enabling them to use this information when planning and undertaking work on their network. This information will also be able to be utilised by those distributors who are responsible for notifying consumers of outages.
- 2.5. Under clause 52 of the Obligations, the Authority must prescribe and publish the procedures in one or more EIEPs in which the retailer must comply when providing information to distributors under clause 51.

## Stakeholder feedback highlighted EIEP4 was unsuitable to achieve the purpose of clause 51 of the Obligations

- 2.6. In the consultation on the proposed Obligations in August 2024, distributors provided detailed feedback on the proposal to share medically dependent consumer information using the existing EIEP that provides for the sharing of consumer information with distributors (EIEP4: Customer Information). Consultation feedback identified the following issues:
- (a) inconsistent application across the sector
  - (b) lack of data standards
  - (c) delayed or outdated data, with some retailers providing updates infrequently
  - (d) incomplete or irrelevant data that does not align with privacy safeguards or operational needs.

## The Authority proposed a new regulated ‘EIEP4A: Medically Dependent Consumer Information’

- 2.7. In response to concerns raised by distributors, in December 2024 the Authority [consulted on a proposal to introduce ‘EIEP4A: Medically Dependent Consumer Information’](#), a new standardised protocol tailored specifically for sharing information about medically dependent consumers under clause 51 of the Obligations.
- 2.8. This paper sets out the Authority’s decision to introduce new EIEP4A, with some refinements in response to stakeholder feedback on the consultation paper.

## Submissions on the consultation paper

- 2.9. We received 22 submissions on the consultation paper from the submitters listed in Table 1: List of submitters. Submissions are available on our website.<sup>1</sup>
- 2.10. We have carefully considered all submissions received and we thank submitters for their feedback.

**Table 1: List of submitters**

Category	Submitters
<b>Retailers and industry organisations (8)</b>	Contact Energy Electricity Retailer Association New Zealand Flick Electric Genesis Energy Mercury Meridian Energy Nova Energy Pulse Energy

<sup>1</sup> [EIEP4A Medically dependent consumer information](#) | [Our consultations](#) | [Our projects](#) | [Electricity Authority](#).

<b>Distributors (10)</b>	Aurora Energy Buller Electricity Marlborough Lines and MainPower Orion The Lines Company Unison and Centralines Vector Waipā Networks WEL Networks Wellington Electricity
<b>Other organisations and individuals (4)</b>	Bruce Palmer Digital Stock Privacy Foundation NZ Hauroa Health Privacy Working Group Utilities Disputes Limited

- 2.11. Submitters had diverse views on the proposal to introduce EIEP4A. Many supported it to ensure distributors receive medically dependent information consistently and in a timely manner. However, some submitters preferred mandating EIEP4 instead, while others raised concerns on the relationship between EIEP4 and EIEP4A, suggesting changes to its operation and data fields. We discuss and respond to key points raised in submissions in section 3.

### Feedback from the Switch and Data Formats Group

- 2.12. Following consultation, we also sought feedback on our proposed decision from the Switch and Data Formats Group (SDFG), an advisory group that provides advice to the Authority on new file formats, and any changes to file formats. We have also considered that feedback in making our final decision.

## 3. Key feedback and Authority response

### Some submitters suggested mandating EIEP4 instead of new EIEP4A

- 3.1. Some submitters (including some retailers and distributors) expressed support for mandating EIEP4 instead of introducing a new, regulated EIEP4A. For retailers, this approach would streamline an existing process by leveraging familiar systems and minimising costs associated with implementing a new protocol. For distributors, particularly those responsible for notifying customers, mandating EIEP4 would improve the accuracy and frequency of the data while avoiding unnecessary complexity of dealing with two separate protocols.

### Authority response

- 3.2. The Authority considered the option of mandating existing EIEP4 instead of new EIEP4A, but as noted at paragraph 2.6 above, we had already received detailed feedback from distributors indicating that EIEP4 is unsuitable for the purpose of sharing medically dependent consumer information.
- 3.3. The Authority remains of the view that a new EIEP for medically dependent consumer information is preferable to mandating existing EIEP4. A key drawback of

relying on EIEP4 is that it would result in a broader set of personal customer information being given to all distributors than EIEP4A, regardless of whether a distributor requires this information for their operational processes (eg notifying customers of planned/unplanned outages if agreed to under their arrangements with the relevant retailer). We consider that mandating EIEP4 would create privacy risks by unnecessarily sharing personal information with parties who do not require it.

- 3.4. The Authority also considered the alternative of mandating EIEP4 but with a registry-based data processor that would act as an intermediary, enabling distributors to elect whether to receive via the registry medically dependent consumer information only, or all customer information. This option would mean that distributors would not be required to receive and store unnecessary personal information.
- 3.5. However, the registry does not currently hold this type of information or have the functionality to support it. Implementing such a change would require modifications to the regulatory settings requiring consultation, and this would not be achievable before 1 April 2025, when the Obligations come fully into effect.

### **Some submitters noted there was duplication and differences between EIEP4 and EIEP4A**

- 3.6. Some submitters noted that EIEP4 already includes some data fields for medically dependent consumer information, and so requiring the use of EIEP4A could result in duplication of information shared with some distributors. It was also noted that there are some differences between the data fields in the current EIEP4 form and the proposed EIEP4A form. For example, the validation rules for 'Medical restriction type' are different.<sup>2</sup>

### **Authority response**

- 3.7. EIEP4 is a non-regulated, voluntary protocol that allows traders to provide customer information to distributors. While it does have medically dependent consumer information fields, the use of EIEP4 is optional and the information that it contains may vary depending on arrangements between the parties.
- 3.8. We encourage participants currently using EIEP4 to consider and make any appropriate changes to their arrangements to ensure no unnecessary duplication of, or discrepancies with information shared using EIEP4A. As we explain below, EIEP4A is the process by which retailers will be required to comply with the Obligations. For the avoidance of doubt, the Authority has clarified that the information provided under EIEP4A will take precedence over conflicting data received under EIEP4 (if any).
- 3.9. We are making a minor, consequential change to EIEP4 by making the medically dependent consumer information fields optional. This will support the use of EIEP4A being the primary vehicle for providing this data. We are also updating the

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<sup>2</sup> EIEP4 uses MDN and MDV within the validation rules for 'Medical restriction type'

wording of the validation rules to align with the Obligations, which will also reduce the risk of discrepancies in EIEP4 and EIEP4A data.

- 3.10. While removing these fields entirely from EIEP4 could create a more streamlined approach, we received feedback that this was not a minor change and therefore, it requires further consultation. The Authority will consider making further changes to EIEP4 in future, which may include removing these fields entirely, to solely rely on the EIEP4A's collection of this data.

### **Some submitters noted potential data accuracy issues if data is received at different times**

- 3.11. Some submitters expressed concern that, using EIEP4 and EIEP4A files together, could create data accuracy issues if the two files are received at different times. Specifically, they noted that if EIEP4 is not sent as frequently as EIEP4A, distributors may hold outdated contact information compared to retailers, which could impact their ability to contact medically dependent consumers about outages affecting their electricity supply. Some submitters suggested that EIEP4 should be sent on a regular basis to align with EIEP4A updates.

### **Authority response**

- 3.12. The new EIEP4A will ensure all distributors receive accurate medically dependent consumer information regularly, typically on a daily basis. This will benefit medically dependent consumers by ensuring all distributors have visibility of medically dependent consumers at an ICP level, regardless of whether they are responsible for notifying outages. Distributors will be able to use this information when planning and undertaking work on the network.
- 3.13. Most distributors are not responsible for contacting customers about outages and therefore do not need customer contact information for that purpose. For these distributors, the potential data discrepancies if data is received at different times is not an issue.
- 3.14. For the small number of distributors that use EIEP4 to notify customers of outages, the introduction of EIEP4A will mean they have better information available to them. They will be able to rely on EIEP4A as providing accurate and up-to-date information about where medically dependent consumers are on their network. We are clarifying that in the event of conflict, EIEP4A takes precedence. Distributors will therefore be able to use EIEP4A to identify the need for updated customer contact information under EIEP4 and request that from the relevant retailer. Mandating EIEP4A will therefore produce better outcomes for consumers compared to the status quo.
- 3.15. In addition, the Authority expects retailers to provide distributors who notify consumers of outages, EIEP4 and EIEP4A at the same time. This would include:
- (a) when a retailer receives a new application for medically dependent consumer status and
  - (b) whenever the information of medically dependent consumer records changes.



- 3.16. The Authority will monitor the implementation of EIEP4A. If we are not satisfied that distributors are provided with accurate and timely exchange information of EIEP4 data, we will consider further action (ranging from further education to regulatory change).
- 3.17. To support retailers and distributors to fully comply with the Obligations, The Authority will publish retailer guidance that reiterates our expectations for the exchange of medically dependent consumer data.

### **Submitters support the utilisation of the EIEP Transfer Hub**

- 3.18. Most stakeholders support mandatory use of the EIEP Transfer Hub for consistency.
- 3.19. Two submitters noted that while they support the utilisation of the EIEP Transfer Hub, mandating it could limit future innovation.

### **Authority response**

- 3.20. The Authority will consider a separate consultation on mandating the EIEP Transfer Hub. In the meantime, we continue to strongly encourage the use of the EIEP Transfer Hub (via the registry EIEP SFTP server) as set out under the business requirements section in the EIEP4A form provided in **Appendix A**.

### **Two submitters recommended the use of the registry as an alternative approach**

- 3.21. Two submitters recommended the Authority mandate the status of a medically dependent ICP or customer is held as an additional field within the Electricity Register Electricity Registry Data fields and accessed similar to how distributors access all other registry data to update their systems.

### **Authority response**

- 3.22. As we outlined in the decision paper of the Obligations, the responsibility for identifying and managing medically dependent consumers sits with retailers, who must have robust systems in place to record and share this information accurately with distributors. While changes to the electricity registry to centralise medically dependent consumer records could be a future system development, retailers and distributors must implement the required processes now to deliver adequate protections for their medically dependent consumers.

### **Some submitters requested additional data fields in the EIEP4A or process**

- 3.23. Some submitters raised the need for additional data fields in the EIEP4A to improve its effectiveness. These included:
- (a) indicating whether the EIEP4A notification is due to an application having been received, a retailer's decision to accept or decline consumer's medically dependent consumer status, and the date of that decision

- (b) including the name of the medically dependent consumer at the ICP to support distributors that notify customers to identify and contact the correct person
- (c) giving medically dependent consumers the option to provide distributors contact information if they wish to receive notifications about planned outages from distributors. This information would be collected as part of the medically dependent consumer application process with retailers. To support this, EIEP4A would need new fields to record contact details when customer consent is given.

### Authority response

- 3.24. The fields proposed in EIEP4A will already capture the information at paragraph 3.23(a). The 'medical restriction type' field has two different validation rules<sup>3</sup>:
- (a) MDA is used if an application has been received (but not decided)
  - (b) MDR is used if an application has been decided and medically dependent consumer status is recorded by the retailer.
- 3.25. If an application is declined, that will be evident by 'N' being recorded in the 'disconnection restriction' field. The protocol explains that 'N' is used if a previous report for this ICP was 'Y' and the application has been declined, or the retailer no longer records a medically dependent consumer residing at that premises.
- 3.26. In relation to the fields proposed at paragraphs 3.23(b) and 3.23(c), we do not consider this information should be included. The Authority maintains its view that to ensure the Obligations appropriately manage privacy issues, it is essential to keep personal information such as contact details separate from the EIEP4A.
- 3.27. As explained above, participants who currently use EIEP4 will continue to be able to access customer contact information. We encourage them to consider and make any appropriate changes to their arrangements to ensure they hold all the necessary information to carry out their agreed responsibilities.

### Feedback on issues that require further consideration

- 3.28. This decision is about how retailers must comply with their requirements under the Consumer Care Obligations to share information with distributors from 1 April 2025. Some feedback we received relates to further improvements more generally, rather than matters under the Consumer Care Obligations. We address them below and we may do further work on them to assess potential benefits for consumers.

### Some submitters requested additional time for implementation changes

- 3.29. Three submitters expressed the need for a transition period of 6 months from the final decision for implementation.
- 3.30. It was submitted that the transition period would enable operational changes to the billing and registry management system to be implemented effectively. It was also

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<sup>3</sup> These validation rules are not to be read as acronyms and refer specifically to the statement following directly after. The sending party will use the relevant validation rule input when using EIEP's.

submitted that the additional implementation period would avoid disruption to existing programs of work and competing resources.

### **Authority response**

- 3.31. The Authority has already decided that the Obligations will come into effect in full on 1 April 2025. A longer implementation period for EIEP4A would not be possible without revisiting that implementation date in the Code.
- 3.32. The Authority considers that it was well-signalled to participants that they would need to ensure compliance with the Obligations by 1 April, including compliance with the relevant EIEP when the decision on the Obligations was published in December 2024. This was followed shortly by our publication on the consultation paper EIEP4A: Medically Dependent Consumer Information.
- 3.33. We appreciate there may be challenges for some participants to implement the obligation in clause 51 by 1 April. We have sought to keep these challenges to a minimum by requiring a simplified set of data only, and by making minimal changes to the medically dependent consumer information fields from the existing EIEP4, that would have been used under the Guidelines.<sup>4</sup> While the implementation date is out of scope of this decision, we reiterate our view that this is an appropriate date, and that any further delay would be at the cost of protections to medically dependent consumers.

### **Some thought the obligations should go further**

- 3.34. Some feedback we received called for clear obligations on distributors to retain and actively use the information provided by retailers under clause 51 of the Obligations, which may go beyond planned and unplanned outages.
- 3.35. We also received feedback that embedded network operators should pass on any medically dependent consumer information they receive from retailers to distributor.

### **Authority's response**

- 3.36. While there is no Code obligation on distributors to hold and use medically dependent consumer information it receives under clause 51,<sup>5</sup> the Authority's expectation is that distributors will use contact information where it is relevant to their operations.
- 3.37. As we explained in the decision paper on the Obligations, medically dependent consumer information has relevance across the electricity network. While electricity supply cannot be guaranteed to any household, including to medically dependent consumers, we expect this information, when it is reliable and easily accessible, will generally be relevant to a distributor's operations, such as planning maintenance that might require a planned service interruption and when responding to unplanned service interruptions and emergency events. For example, a distributor might

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<sup>4</sup> In accordance with paragraph 91 (vi) of the Consumer Care Guidelines.

<sup>5</sup> This was out of scope of the Authority's decision to mandate the Consumer Care Guidelines, as those Guidelines did not contain any such expectation on distributors.

choose to prioritise reconnection of certain ICPs in an emergency if it knows that medically dependent consumers are affected by the outage.

- 3.38. Should we become aware of distributors' inactive use of this information, the Authority may take further action to ensure distributors do use this information appropriately. This may include an amendment to the Obligations to impose a Code obligation on distributors to store and use the information appropriately, to protect medically dependent consumers.
- 3.39. We will consider whether further changes are required for embedded networks as part of our future work programme.

## **4. The Authority has decided to introduce a regulated EIEP4A, with some changes following consultation**

- 4.1. The Authority has decided to introduce EIEP4A as the prescribed EIEP for sharing information about medically dependent consumers under clause 51 of the Obligations. The Authority considers this decision will ensure:
- (a) all distributors receive consistent, reliable and timely exchange of information about medically dependent consumers on their network
  - (b) distributors who notify customers of outages can use existing processes to ensure they have the necessary information to carry out their responsibilities
  - (c) the sharing of personal information is limited to what is necessary to ensure medically dependent consumers receive appropriate care and consideration in relation to planned and unplanned outages
  - (d) we have made some changes in response to consultation feedback.

### **Clarifying relationship between EIEP4A and EIEP4**

- 4.2. To resolve the potential for any data conflicts between EIEP4A and EIEP4 for any overlapping information, we have made a change to EIEP4A to clarify that it takes precedence over EIEP4 as noted above.

### **Minor changes to EIEP4 form**

- 4.3. The data fields proposed in EIEP4A were based on the existing fields in EIEP4, with updated validation rules to reflect the Authority's decision to mandate the Obligations. To minimise duplication and the risk of discrepancies between EIEP4A and EIEP4, we have decided to make minor, consequential changes to the EIEP4, to:
- (a) make the following fields optional: 'Disconnection restriction type', and 'Medical restriction type'
  - (b) update the validation rules for those fields to align with EIEP4A, adopting language that aligns with the Obligations.

## 5. The decision aligns with our statutory objectives

- 5.1. The decision to introduce and prescribe a new EIEP does not require an amendment to the Code, however, the Authority considers it prudent to have regard to the objectives, benefits, and costs of the proposal.

### Objective of the EIEP4A form

- 5.2. The objective of regulating the proposed EIEP4A is to ensure the consistent, reliable and timely exchange of information about medically dependent consumers as required under the Obligations.
- 5.3. This will ensure distributors have visibility of medically dependent consumers at an ICP level, enabling them to use this information when planning and undertaking work on the network. This information will also be able to be utilised by those distributors who are responsible for notifying consumers of outages. This furthers the purpose of Part 8 of the Obligations, which includes ensuring that medically dependent consumers receive appropriate care and consideration in relation to planned and unplanned outages.

### The benefits of the proposed EIEP4A are expected to outweigh the costs

- 5.4. The consultation paper included our assessment that the benefits of introducing the proposed EIEP4A as a whole are expected to outweigh the costs.

### Feedback on the cost and benefit analysis

- 5.5. Most submitters agreed that the benefits of the proposed EIEP4A outweighed its costs. These submitters generally supported the movement towards a regulated EIEP and viewed the approach taken adequately addressed the privacy concerns associated with sharing data to identify medically dependent consumers.
- 5.6. Feedback received from other submitters ranged from no comment, to considering other options were more suitable, to partial / full disagreement with the Authority's analysis. These submissions raised the following matters:
- (a) more quantitative estimates of the costs and benefits were required to give an opinion
  - (b) increased costs from implementing processes for handling both EIEP4 and EIEP4A processes would include inefficiencies resulting from duplication of effort and information between the two files
  - (c) the objective could be achieved via regulating the EIEP4 with necessary improvements (we address this point above)
  - (d) changes to the registry would be a preferred solution (we address this point above).
- 5.7. Several submitters did raise the following benefits and costs may have been missed. We note some of these extend from the costs and benefits identified more broadly:

- Benefits:
  - Direct benefit to medically dependent consumers directly of having retailers and distributors aware of their status with an ability to act on this with improved outage communication and service prioritisation
  - Legal compliance benefit in terms of compliance with the Privacy Act, and potential benefits regarding good custodianship and stewardship of information.
- Costs:
  - Potential for existing issues, such as inaccurate data and untimely data, with EIEP4 format to worsen if the proposed EIEP4A is introduced
  - The increased set up and compliance costs may not have explored fully the additional cost on participants of a potential increased frequency of exchanging data
  - Additional costs to ensure processes can mitigate potential data accuracy issues if data is received at different times.

### Authority response

- 5.8. In consideration of submitter feedback, the Authority's assessment concludes that the benefits of the new proposed EIEP4A outweighs its costs.
- 5.9. In relation to the matters raised by some submitters, we note that we have addressed submitters' concerns in section 3 where we detailed our response and rationale, and section 4 where we outlined our final decision. As explained in those sections, we have made changes to address concerns relating to the relationship between EIEP4 and EIEP4A, to reduce the risk of duplication and of discrepancies in the data.
- 5.10. The primary benefits of the proposed EIEP4A relate to improved efficiency in the electricity industry for the long-term benefit of consumers, which in turn better supports the Obligations and the protection of medically dependent consumers.
- 5.11. Other benefits of EIEP4A to share medically dependent consumer information include:
- (a) **Operational improvements:** The proposed form specifies the frequency of updates to enable up to daily updates, mandatory data fields, and clear responsibilities for retailers and distributors
  - (b) **Reliable, timely and consistent** medically dependent consumer data sharing across the sector
  - (c) **Efficient, privacy-conscious data exchange** – reducing unnecessary data sharing, enabling a more efficient exchange of data, and minimising privacy concerns.
- 5.12. The costs associated with the proposed amendment include initial set up and ongoing compliance costs. Retailers and distributors will need to update their systems and processes to comply with the EIEP4A requirements, in order to comply with clause 51 of the Obligations.

- 5.13. These increased compliance requirements are expected to be offset by improving the clarity of how retailers meet their obligations under clause 51 of the Obligations.
- 5.14. As participants become familiar with the Obligations and the EIEP4A framework, net benefits are expected to increase over time, contributing to long-term operational efficiency and improved consumer outcomes.

## 6. Next steps

### Key dates

- 6.1. EIEP4A becomes effective 1 April 2025. The initial EIEP4A file must be provided by all traders to distributors on or before 2 April 2025, and must be a 'snapshot' file that provides medically dependent consumer information for all ICPs with a customer contract as at 1 April 2025. It must include information provided to the trader by any other retailer in accordance with clause 51(1)(b) of the Obligations.
- 6.2. Parties will need to agree whether subsequent files are to be an updated replacement 'snapshot' file whenever any medically dependent consumer information changes, or an 'incremental' file that only provides new or amended medically dependent consumer information for ICPs with a customer contract since the last incremental or snapshot version was provided.
- 6.3. For further details, see **Appendix A: EIEP4A Medically Dependent Consumer Information**.

## 7. Attachments

- 7.1. The following appendices are attached to this paper:

**Appendix A EIEP4A Medically Dependent Consumer Information**

**Appendix B EIEP4 Customer Information**

## Appendix A      **EIEP4A: Medically Dependent Consumer Information**



# **Electricity Information Exchange Protocols (EIEP)**

## **EIEP4A: Medically Dependent Consumer Information**

Regulated

Effective from 1 April 2025

## EIEP4A: Medically Dependent Consumer Information

<b>Title:</b>	<b>EIEP4A: Medically dependent consumer information</b>
<b>Version:</b>	1.0
<b>Application:</b>	This protocol applies to all: a) traders to provide information about medically dependent consumers to distributors at an ICP level, and b) retailers to provide information about medically dependent consumers to the trader responsible for the relevant ICP.
<b>Participants:</b>	Retailer/Trader/Distributor
<b>Code reference:</b>	Clause 51 of Schedule 11A.1
<b>Dependencies:</b>	The use of system agreement between the distributor and the trader may also set out requirements relating to the provision of customer information that the distributor and/or the trader must comply with, such as obligations under the Privacy Act and the terms and conditions of customer contracts, restrictions on the purposes for which the customer information may be used, and the obligation to treat the customer information as confidential information.

### Description of when this protocol applies

This protocol is used to provide distributors and traders with information about medically dependent consumers at an ICP level (typically daily). This will ensure distributors have visibility of medically dependent consumers at an ICP level on their network, to enable distributors to use this information when planning and undertaking work on the network. This information will also be able to be utilised by those distributors who are responsible for notifying consumers of outages. Distributors will use this information to verify or update their records.

### Business requirements

1. The sender and recipient must agree on the file transport mechanism by which the sender will provide information and the destination address. Non-manual interfaces use electronic file transfer either via File Transfer Protocol (FTP) or Secure File Transfer Protocol (SFTP) connectivity. In the case of FTP a security mechanism must be used to protect confidentiality. Whatever method is agreed that method must be in a format approved and published by the Authority.
2. The Authority strongly recommends using the electronic file transport mechanism commonly used for EIEP files – the registry EIEP transfer hub (via the registry EIEP SFTP server).
3. Where information is required to be transferred using email, the contents must be delivered in a secure manner and password protected.
4. This protocol must be used whenever a retailer or trader is required to notify the responsible trader or distributor of a new application for medically dependent consumer status or any subsequent change in medically dependent consumer status, but no more than once a day.
5. An agent may provide data on behalf of the relevant retailer or trader, in which case the header for EIEP4A will identify the trader/retailer. The appointment of an agent must be a permission function of the responsible trader/retailer and receiving traders/distributors must allow for agents in their systems.
6. A trader/retailer must use codes that are:
  - (a) stipulated in this document, or
  - (b) approved and published by the Electricity Authority; or

### Business requirements

- (c) determined in the registry and reconciliation functional specifications.
7. Information provided in the file will be consistent with the terminology used in the Glossary of Standard Terms published by the Authority.
  8. The file must contain all mandatory information, failure to provide the required information will result in the file being deemed as incomplete.
  9. Information is to be provided in accordance with the following status codes unless otherwise specified:
    - O Optional
    - M Mandatory
    - C Conditional - Mandatory if available, otherwise Null (also refer to validation rules)
  10. The initial EIEP4A file must be provided by all traders to distributors on or before 2 April 2025, and must be a 'snapshot' file that provides medically dependent consumer information for all ICPs with a customer contract as at 1 April 2025. The Initial file type should be denoted as file type I. Parties will need to agree whether subsequent files are to be:
    - (a) an updated replacement 'snapshot' file whenever any medically dependent consumer information changes, that provides complete and up to date information for all medically dependent consumers at an ICP with a customer contract. Replacement files should be denoted as file type R; or
    - (b) an 'incremental' file that only provides new or amended medically dependent consumer information for ICPs with a customer contract since the last incremental or snapshot version was provided. Incremental files should be denoted as file type X.
  11. If a party becomes aware of a format error or the file is incomplete, that party must advise the other party as soon as practical after becoming aware of the issue.
  12. If no agreement can be reached as to whether the file is to be a partial (incremental) or full replacement for the correction of the error as noted above, then a full replacement file is required.
  13. Recipients of EIEP4A files must be capable of receiving I (initial), R (complete replacement) and X (partial replacement) files.

### General requirements

1. If there are any conflict between data provided in an EIEP4A file and an EIEP4 file for the same ICP, the data in this EIEP4A file takes precedence.
2. If there are any conflicts between this document and the Code, the Code takes precedence.
3. In general, all participants must provide the recipient with accurate information for all ICPs at which they are recorded in the registry as being responsible for, or for which they have a customer contract.
4. A number of data transfers are required between participants in order for the EIEP process to take place. These data flows if not previously agreed between participants are to be those recommended by the Authority. At all times they must take place in a secure and predictable manner.
5. It is the responsibility of participants to comply with their obligations under the Privacy Act and the terms and conditions of customer contracts when exchanging customer information.

### Data inputs

Event data	Format	Trader to Distributor, Retailer to Trader: Mandatory/Optional/Conditional	Validation rules
<i>Header record type</i>	Char 3	M	HDR – indicates the row is a header record type
<i>File type</i>	Char 7	M	Customer Medically Dependent Consumer Information Listing - CUSMDC
<i>Version of EIEP</i>	Num 3.1	M	Version of EIEP protocol that is being used for this file.
<i>Sender</i>	Char 20	M	Name of sending party. Participant identifier to be used if the sender is a participant.
<i>Sent on behalf of participant identifier</i>	Char 4	C	Participant identifier of party on whose behalf data is provided. Mandatory if sender not the participant.
<i>Recipient participant identifier</i>	Char 4	M	Valid recipient participant identifier
<i>Report run date</i>	DD/MM/YYYY	M	Date the report is run
<i>Report run time</i>	HH:MM:SS	M	Time the report is run
<i>Unique File identifier</i>	Char 15	M	Number that uniquely identifies the file
<i>Number of detail records</i>	NUM 8	M	Total number of DET records in report
<i>File status</i>	Char 1	M	I = Initial or R = Replacement or X = Replace only those ICPs contained in this replacement file, also used for each incremental file

Event data	Format	Trader to Distributor, Retailer to Trader: Mandatory/Optional/Conditional	Validation rules
<i>Detail record type</i>	Char 3	M	DET – indicates the row is a detail record.
<i>ICP identifier</i>	Char 15	M	Unique identifier for an ICP created by a distributor in accordance with clause 1 of Schedule 11.1

Event data	Format	Trader to Distributor, Retailer to Trader: Mandatory/Optional/Conditional	Validation rules
<i>Disconnection restriction</i>	Char 1	M	<p>"Y" for Yes or "N" for No for medically dependent consumer(s) at the ICP.</p> <p>Use "N" if a previous report for this ICP was "Y" and application for medically dependent consumer status has subsequently been declined, or retailer no longer records a medically dependent consumer residing at the premises.</p>
<i>Medical restriction type</i>	Char 3	C	<p>MDA if trader has received or is advised of an application for medically dependent consumer status.</p> <p>MDR if medically dependent consumer is recorded by the trader or retailer.</p> <p>Mandatory if disconnection restriction is recorded as "Y", otherwise Null.</p>
<i>Finalled date</i>	DD/MM/YY YY	C	<p>In relation to an ICP, means the date on which an arrangement between a customer and a retailer for the supply of electricity at the ICP was terminated. For use in incremental files only.</p> <p>Mandatory if incremental file and customer contract finalled.</p>

Protocol specifications
<p>6. The information is to be provided as a comma delimited text file. Commas are therefore prohibited within fields.</p> <p>7. Each formatted file will consist of one or more records, with each record being a single line of text as</p> <ul style="list-style-type: none"> <li>(a) a carriage return character and a line feed character combination (ASCII characters 13 and 10) commonly used in Windows based programs, or</li> <li>(b) a line feed character (ASCII character 10) commonly used in Unix based programs, or</li> <li>(c) a carriage return character (ASCII character 13) commonly used in Mac based programs.</li> </ul> <p>8. Data fields within files are defined using the attributes in the table following these specifications.</p> <p>9. Matching of file names, code list values, etc, are to be case insensitive.</p> <p>10. Each data file will contain only one header but may contain any number of detail records.</p> <p>11. The first record of a file contains 'Header' information followed by zero or more detail lines.</p> <p>12. The following file naming convention is to be used with this file:</p> <p>Sender + Recipient + File Type + Report Run Date + UniqueID# (e.g. hhmm run time, or ICP but limited to Char(60)) with an extension of .TXT and with the components concatenated using the underscore character, to assist readability.</p> <p>e.g. TRUS_ UNET_ CUSIN_20000802_1232.TXT</p> <p>[Char4_ Char4_ Char7_ yyyyymmdd_UniqueID.TXT]</p>

<b>Data outputs</b>

## Table of codes used in EIEP4A

**Table 2 List of attributes to define data fields used in EIEP4A**

Logical format	Data type	Rules	Example
INT (n)	Integer	<p>ASCII representation of an integer number (ie no decimals), no leading zeros, no spaces, a leading “-“ if negative (no sign if positive), with 1 to n digits.</p> <p>Numbers only: ASCII characters 48 to 57, and 45 where applicable.</p>	<p>INT (4)</p> <p>12</p> <p>-1234</p>
NUM (n.d)	Decimal	<p>ASCII representation of a decimal number (ie a rational number), no spaces, a leading “-“ if negative (no sign if positive), with up n digits including up to (n minus d) digits to the left of the decimal place, and up to d digits to the right of the decimal place.</p> <p>For integers, the decimal point is not required.</p> <p>A decimal point on its own must not be used to represent zero (use “0”)</p> <p>Trailing zeros are optional.</p> <p>No leading zeros other than when the number starts with “0.”</p> <p>Numbers only: ASCII characters 48 to 57, and 45/46 where applicable.</p>	<p>NUM (6.2)</p> <p>123.45</p> <p>1234.0</p> <p>-12.32</p> <p>NUM (6.3)</p> <p>-0.123</p> <p>23.987</p> <p>987.000</p> <p>8</p>
CHAR (n)	Text	<p>Up to n characters (ASCII characters 32 to 43 and 45 to 126 only).</p> <p>As commas (ASCII character 44) are used as field separators, they must not be used within the field data (it is recommended that any commas found in source data be changed to a semi-colon (ASCII character 59) when files are created.</p> <p>Fields must not contain any leading or trailing spaces.</p>	The quick brown fox
DATE	Date	<p>ASCII format with: Year represented as:</p> <p>— YYYY for century and year</p> <p>Month represented as:</p> <p>— MM to display leading zero</p> <p>Day represented as</p> <p>— DD to display leading zero</p> <p>ASCII format for any separators used</p>	<p>YYYYMMDD e.g.</p> <p>20050216</p> <p>DD/MM/YYYY e.g.</p> <p>16/02/2005</p>

Logical format	Data type	Rules	Example
TIME	Time	ASCII in 24 hour format Hour represented as HH with leading zeros Minutes represented as MM with leading zeros Seconds represented as SS with leading zeros ASCII format for any separators used Note: both NZST and NZDT will be used and will be indicated as necessary	HH:MM:SS e.g. 13:15:01 HH:MM e.g. 13:15
DATETIME	Date/Time	ASCII format with same rules as both Date and Time Data Types	YYYYMMDDHHMMSS e.g. 20050216131501
NULL	Null	Field contains no data	

**Table 3 ASCII character set for use within fields of EIEP4A**

Character	ASCII		Character	ASCII		Character	ASCII
32	Space		64	@		97	a
33	!		65	A		98	b
34	"		66	B		99	c
35	#		67	C		100	d
36	\$		68	D		101	e
37	%		69	E		102	f
38	&		70	F		103	g
39	'		71	G		104	h
40	(		72	H		105	i
41	)		73	I		106	j
42	*		74	J		107	k
43	+		75	K		108	l
			76	L		109	m
45	-		77	M		110	n
			78	N		111	o
46	.		79	O		112	p
47	/		80	P		113	q
48	0		81	Q		114	r
49	1		82	R		115	s
50	2		83	S		116	t
51	3		84	T		117	u
52	4		85	U		118	v



Character	ASCII		Character	ASCII		Character	ASCII
53	5		86	V		119	w
54	6		87	W		120	x
55	7		88	X		121	y
56	8		89	Y		122	z
57	9		90	Z		123	{
58	:		91	[		124	
59	;		92	\		125	}
60	<		93	]		126	~
61	=		94	^			
62	>		95	_			
63	?		96	Z			

## **Appendix B    EIEP4: Customer Information**

# Electricity Information Exchange Protocols (EIEP)

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## EIEP4: Customer information

Non-regulated

Effective from 1 October 2019



## Version control

Version	Date amended	EIEP Ref	Comments
10	27 November 2013	all	Sender format field decreased from 50 to 20 characters.
10.1 draft	30 June 2017	EIEP4	Amendments include: Improvements to add clarity and consistency to content Business requirements inserted with respect to incremental files to alert participants to potential options where there are multiple triggers within a day, and reversals Deleted option of Distributor to Trader as always Trader to Distributor
11	2 October 2018	EIEP4	Improvements to add further clarity and consistency following submissions received in response to the 4 August 2017 consultation paper and the Authority's responses and decisions set out in the decision paper. Reinstate 'Fax number' field Increase phone number fields to 20 characters Increase email address field to 254 characters, and allow for multiple email addresses separated by semi-colon Add a new 'Reversal indicator' field at the end of the Detail record, to be populated with "Y" in the incremental file if the trader wishes to communicate a reversal event, otherwise Null. Null in the snapshot file. Delete proposed business requirement 17. Amend general requirements clause covering compliance with the Privacy Act, to remove obligation on distributor to comply with terms & conditions of the trader's customer contract

## Contents

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2	Table of codes used in EIEP4	9

## EIEP4: Customer information

<b>Title:</b>	<b>EIEP4: Customer information</b>
<b>Version:</b>	11
<b>Application:</b>	This protocol allows traders to provide customer information to distributors, as a snapshot or incremental file. Incremental customer detail changes will result in a “triggered” report to be sent to the distributor.
<b>Participants:</b>	Trader/Distributor
<b>Code reference:</b>	
<b>Dependencies:</b>	The use of system agreement between the distributor and the trader may also set out requirements relating to the provision of customer information that the distributor and/or the trader must comply with, such as obligations under the Privacy Act and the terms and conditions of customer contracts, restrictions on the purposes for which the customer information may be used, and the obligation to treat the customer information as confidential information.

<b>Description of when this protocol applies</b>
Where agreed, this protocol is used by traders to provide distributors with a snap-shot of the trader’s customer information at a specific point in time (typically monthly or weekly), or to provide distributors with incremental changes in the trader’s customer information (typically daily), to be used only for the purposes as agreed between traders and distributors. Distributors will use this information to verify or update their records.

<b>Business requirements</b>
<ol style="list-style-type: none"> <li>1. The distributor and each trader must agree on the file transport mechanism by which the trader will provide information and the destination address. Non-manual interfaces use electronic file transfer either via File Transfer Protocol (FTP) or Secure File Transfer Protocol (SFTP) connectivity. In the case of FTP a security mechanism must be used to protect confidentiality. Whatever method is agreed that method must be in a format approved and published by the Authority.</li> <li>2. Where information is required to be transferred using email, the contents must be delivered in a secure manner and password protected.</li> <li>3. This protocol will be used in the timeframes as and when agreed between parties.</li> <li>4. An agent may provide data on behalf of the relevant reconciliation participant, in which case the header for EIEP4 will identify the reconciliation participant. The appointment of an agent must be a permission function of the responsible reconciliation participant and receiving participants must allow for agents in their systems.</li> <li>5. A trader must use codes that are: <ol style="list-style-type: none"> <li>(a) stipulated in this document, or</li> <li>(b) approved and published by the Electricity Authority; or</li> <li>(c) determined in the registry and reconciliation functional specifications</li> </ol> </li> <li>6. Information provided in the file will be consistent with the terminology used in the Glossary of Standard</li> </ol>

<b>Business requirements</b>	
	Terms published by the Authority.
	7. The file must contain all mandatory information, failure to provide the required information will result in the file being deemed as incomplete.
	8. Information is to be provided in accordance with the following status codes unless otherwise specified:
	O Optional
M	Mandatory
C	Conditional - Mandatory if available, otherwise Null (also refer to validation rules)
	9. To assist in understanding where these apply when files can be communicated both ways between participants, the relevant status code is given in the assigned column either Trader to Distributor or Distributor to Trader
	10. For address information the postal address is to be populated with the billing address including PO Box numbers and RD numbers). If the trader uses the physical installation address as the billing address, then this is to be populated to the postal address fields.
	11. When an international address is required the zip codes is to be applied in the post address post code field.
	12. Parties will need to agree whether the file is to be either:
	(a) a "snapshot" file that provides customer information for all ICPs with a customer contract as at an agreed date; or
	(b) an "incremental" file that provides customer information for ICPs with a customer contract when any customer information has been amended or added since the last incremental or snapshot version was provided. Incremental files should be denoted as file type X.
	13. If the trader or distributor becomes aware of a format error or the file is incomplete, that party must advise the other party as soon as practical after becoming aware of the issue.
	14. If no agreement can be reached as to whether the file is to be a partial or full replacement for the correction of the error as noted above, then a full replacement file is required.
	15. Recipients of EIEP4 files must be capable of receiving I (initial), R (complete replacement) and X (partial replacement) files.
	16. For incremental files, there may be multiple customer change triggers within a day. As the trader may be able to provide multiple records as an alternative to the last record (natural default), the distributor may wish to discuss its preference with the trader. For example, if customer A moves out and customer B moves in on the same day, a distributor would receive both customer A and B movements under multiple incremental records functionality, or only customer movement B under single incremental record functionality.
	17. For incremental files, reporting of reversals is not transparent, and as the trader may be able to separately alert the distributor to a reversal record (e.g. switch withdrawal or reversal of a move-in or move-out), the distributor may wish to discuss options (if any) with the trader.

<b>General requirements</b>	
	1. If there are any conflicts between this document and the Code, the Code will take precedence.
	2. In general, all participants must provide the recipient with:
	(a) accurate information for all points of connection at which they are responsible for the current consumption period
	(b) when available, revised information for all points of connection at which they have purchased or sold electricity during any previous consumption period
	(c) any additional information requested in respect of any consumption period.
	3. A number of data transfers are required between participants in order for the EIEP process to take

General requirements
<p>place. These data flows if not previously agreed between participants are to be those recommended by the Authority. At all times data transfers must take place in a secure and predictable manner.</p> <p>4. It is the responsibility of participants to comply with their obligations under the Privacy Act, and (where applicable) to comply with the terms and conditions of its customer contracts, when exchanging customer information.</p>

Data inputs

Event data	Format	Trader to Distributor: Mandatory/Optional/Conditional	Validation rules
<i>Header record type</i>	Char 3	M	HDR – indicates the row is a header record type
<i>File type</i>	Char 7	M	Customer Information Listing - CUSIN
<i>Version of EIEP</i>	Num 3.1	M	Version of EIEP protocol that is being used for this file.
<i>Sender</i>	Char 20	M	Name of sending party. Participant identifier to be used if the sender is a participant.
<i>Sent on behalf of participant identifier</i>	Char 4	C	Participant identifier of party on whose behalf data is provided. Mandatory if sender not a participant
<i>Recipient participant identifier</i>	Char 4	M	Valid recipient participant identifier
<i>Report run date</i>	DD/MM/YYYY	M	Date the report is run
<i>Report run time</i>	HH:MM:SS	M	Time the report is run
<i>Unique File identifier</i>	Char 15	M	Number that uniquely identifies the file
<i>Number of detail records</i>	NUM 8	M	Total number of DET records in report
<i>Report period start date</i>	DD/MM/YYYY	M	Report run start date (inclusive)
<i>Report period end date</i>	DD/MM/YYYY	M	Report run end date (inclusive)
<i>Utility type</i>	Char 1	M	G (Gas) or E (Electricity)



Event data	Format	Trader to Distributor: Mandatory/Optional/Conditional	Validation rules
<i>File status</i>	Char 1	M	I = Initial or R = Replacement or X = Replace only those ICPs contained in this replacement file, also used for each incremental file

Event data	Format	Trader to Distributor: Mandatory/Optional/Conditional	Validation rules
<i>Detail record type</i>	Char 3	M	DET – indicates the row is a detail record.
<i>ICP identifier</i>	Char 15	M	Unique identifier for an ICP created by a distributor in accordance with clause 1 of Schedule 11.1
<i>Customer name</i>	Char 100	M	Legal name or the name of the customer. Multiple names to be concatenated into one field
<i>Phone number home</i>	Char 20	C	Home land line phone number.
<i>Phone number work</i>	Char 20	C	Number person can be contacted at during business hours.
<i>Phone number mobile</i>	Char 20	C	Cell phone number
<i>Fax number</i>	Char 15	C	Fax number
<i>Email address</i>	Char 254	C	Must provide one email address if available. Multiple email addresses may be provided, separated by a semi-colon
<i>Postal free form</i>	Char 30	C	All postal fields can be Null, but are mandatory if available
<i>Postal address unit</i>	Char 25	C	Sub dwelling number; Level of sub dwelling
<i>Postal address num</i>	Char 25	C	Number issued by government agency or local government authority that identifies a point or location on a street for postal purposes
<i>Postal address street</i>	Char 30	C	Official road name issued by government agency or local government authority.

Event data	Format	Trader to Distributor: Mandatory/Optional/Conditional	Validation rules
<i>Postal Box/RD</i>	Char 30	C	Number assigned a postal delivery box or rural delivery number.
<i>Postal address suburb</i>	Char 30	C	A bounded locality within a city, town or shire principally of urban character.
<i>Postal address town</i>	Char 30	C	An officially recognised and named population centre, defined within a geographic boundary.
<i>Postal address postcode</i>	Char 30	C	The post code assigned by NZ post (zip code if outside NZ)
<i>Postal address country</i>	Char 30	C	The country for postal information.
<i>Event date</i>	DD/MM/YYYY	M	In relation to an ICP, means the date on which an arrangement between a customer and a trader for the supply of electricity at the ICP comes into effect
<i>Disconnection restriction</i>	Char 1	O	<p>"Y" for Yes or "N" for No for medically dependent consumer(s) at the ICP.</p> <p>Use "N" if a previous report for this ICP was "Y" and application for medically dependent consumer status has subsequently been declined, or retailer no longer records a medically dependent consumer residing at the premises.</p>
<i>Medical restriction type</i>	Char3	O	<p>MDA if trader has received or is advised of an application for medically dependent consumer status.</p> <p>MDR if medically dependent consumer is recorded by the trader or retailer.</p> <p>Mandatory if disconnection restriction is recorded as "Y", otherwise Null.</p>
<i>Customer no.</i>	Num 15	M	Trader's customer number. (the identifier that the trader assigns to the customer which remains the same across all the connections for the customer)
<i>Consumer no</i>	Num 15	C	Trader's consumer number defined as the trader's unique ID that links the premises and the consumer.
<i>Customer Title</i>	Char 20	C	Separated customer title details.
<i>Surname</i>	Char 100	M	Separated customer surname details (populate with separated company name(s) if customer includes a company)

<i>First name</i>	Char 100	C	Separated customer first name details.
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Event data	Format	Trader to Distributor: Mandatory/Optional/Conditional	Validation rules
<i>Finalled date</i>	DD/MM/YYYY	C	In relation to a ICP, means the date on which an arrangement between a customer and a trader for the supply of electricity at the ICP was terminated. For use in incremental files only. Mandatory if incremental file and customer contract finalled.

Protocol specifications
<ol style="list-style-type: none"> <li>The information is to be provided as a comma delimited text file. Commas are therefore prohibited within fields. For customer names that require separation a tilde character (~) should be used. This is the only provision for the use of a tilde character.</li> <li>Each formatted file will consist of one or more records, with each record being a single line of text as <ol style="list-style-type: none"> <li>a carriage return character and a line feed character combination (ASCII characters 13 and 10) commonly used in Windows based programs, or</li> <li>a line feed character (ASCII character 10) commonly used in Unix based programs, or</li> <li>a carriage return character (ASCII character 13) commonly used in Mac based programs.</li> </ol> </li> <li>Data fields within files are defined using the attributes in the table following these specifications.</li> <li>Matching of file names, code list values, etc, are to be case insensitive.</li> <li>Each data file will contain only one header but may contain any number of detail records.</li> <li>The first record of a file contains 'Header' information followed by zero or more detail lines.</li> <li>The following file naming convention is to be used with this file:  Sender + Utility Type + Recipient + File Type + Report Month + Report Run Date + UniqueID# (e.g. hhmm run time, or ICP but limited to Char (60)) with an extension of .TXT and with the components concatenated using the underscore character, to assist readability.  e.g. TRUS_E_UNET_CUSIN_200007_20000802_1232.TXT  [Char4_Char1_Char4_ Char7_yyyymm_yyyymmdd_UniqueID.TXT]</li> </ol>

Data outputs

# 1 Table of codes used in EIEP4

## 1.1 Table 1 List of attributes to define data fields used in EIEP4

Logical format	Data type	Rules	Example
INT (n)	Integer	<p>ASCII representation of an integer number (ie no decimals), no leading zeros, no spaces, a leading “-” if negative (no sign if positive), with 1 to n digits.</p> <p>Numbers only: ASCII characters 48 to 57, and 45 where applicable.</p>	<p>INT (4)</p> <p>12</p> <p>-1234</p>
NUM (n.d)	Decimal	<p>ASCII representation of a decimal number (ie a rational number), no spaces, a leading “-” if negative (no sign if positive), with up n digits including up to (n minus d) digits to the left of the decimal place, and up to d digits to the right of the decimal place.</p> <p>For integers, the decimal point is not required.</p> <p>A decimal point on its own must not be used to represent zero (use “0”)</p> <p>Trailing zeros are optional.</p> <p>No leading zeros other than when the number starts with “0.”</p> <p>Numbers only: ASCII characters 48 to 57, and 45/46 where applicable.</p>	<p>NUM (6.2)</p> <p>123.45</p> <p>1234.0</p> <p>-12.32</p> <p>NUM (6.3)</p> <p>-0.123</p> <p>23.987</p> <p>987.000</p> <p>8</p>
CHAR (n)	Text	<p>Up to n characters (ASCII characters 32 to 43 and 45 to 126 only).</p> <p>As commas (ASCII character 44) are used as field separators, they must not be used within the field data (it is recommended that any commas found in source data be changed to a semi-colon (ASCII character 59) when files are created.</p> <p>Fields must not contain any leading or trailing spaces.</p>	The quick brown fox
DATE	Date	<p>ASCII format with: Year represented as:</p> <p>— YYYY for century and year</p> <p>Month represented as:</p> <p>— MM to display leading zero</p> <p>Day represented as</p> <p>— DD to display leading zero</p>	<p>YYYYMMDD e.g. 20050216</p> <p>DD/MM/YYYY e.g. 16/02/2005</p>

Logical format	Data type	Rules	Example
		ASCII format for any separators used	
TIME	Time	ASCII in 24 hour format Hour represented as HH with leading zeros Minutes represented as MM with leading zeros Seconds represented as SS with leading zeros ASCII format for any separators used Note: both NZST and NZDT will be used and will be indicated as necessary	HH:MM:SS e.g. 13:15:01 HH:MM e.g. 13:15
DATETIME	Date/Time	ASCII format with same rules as both Date and Time Data Types	YYYYMMDDHHMMSS e.g. 20050216131501
NULL	Null	Field contains no data	

## 1.2 Table 2 ASCII character set for use within fields of EIEP4

Character	ASCII	Character	ASCII	Character	ASCII
32	Space	64	@	97	a
33	!	65	A	98	b
34	"	66	B	99	c
35	#	67	C	100	d
36	\$	68	D	101	e
37	%	69	E	102	f
38	&	70	F	103	g
39	'	71	G	104	h
40	(	72	H	105	i
41	)	73	I	106	j
42	*	74	J	107	k
43	+	75	K	108	l
		76	L	109	m
45	-	77	M	110	n
		78	N	111	o
46	.	79	O	112	p
47	/	80	P	113	q
48	0	81	Q	114	r
49	1	82	R	115	s
50	2	83	S	116	t

Character	ASCII	Character	ASCII	Character	ASCII
51	3	84	T	117	u
52	4	85	U	118	v
53	5	86	V	119	w
54	6	87	W	120	x
55	7	88	X	121	y
56	8	89	Y	122	z
57	9	90	Z	123	{
58	:	91	[	124	
59	;	92	\	125	}
60	<	93	]	126	~
61	=	94	^		
62	>	95	_		
63	?	96	Z		