

<b>PART A : OVERVIEW</b> .....	<b>1</b>
1. INTRODUCTION.....	1
2. OBJECTIVE.....	1
3. SCOPE .....	2
4. APPLICABILITY .....	2
5. DEFINITION.....	2
6. LEGAL PROVISIONS.....	3
<b>PART B : OPERATIONAL REQUIREMENTS</b> .....	<b>4</b>
7. PRINCIPLE 1: ESTABLISH ADEQUATE GOVERNANCE AND OPERATIONAL ARRANGEMENTS.....	4
8. PRINCIPLE 2: ENSURE PROPER RISK MANAGEMENT IS IN PLACE .....	5
9. PRINCIPLE 3: ENSURE THAT THE RISKS OF USING E- MONEY, AND RIGHTS AND RESPONSIBILITIES OF ALL STAKEHOLDERS ARE CLEARLY DEFINED AND DISCLOSED .....	8
10. PRINCIPLE 4: ENSURE PRUDENT MANAGEMENT OF FUNDS.....	9
11. PRINCIPLE 5: ENSURE TIMELY REFUND OF STORED VALUE IN THE E-MONEY .....	11
12. PRINCIPLE 6: IMPLEMENT ADEQUATE MEASURES TO PREVENT THE USE OF E-MONEY FOR MONEY LAUNDERING, AND ENSURE COMPLIANCE WITH OTHER REQUIREMENTS .....	11
13. OTHERS.....	12
<b>PART C : SPECIFIC REQUIREMENTS FOR LARGE E-MONEY ISSUERS</b> .....	<b>13</b>
Appendix I.....	14
Appendix 2.....	15
Appendix 3.....	16

BNM/RH/GL 016-3	Payment Systems Policy Department	Guideline on Electronic Money (E-Money)	Page 1/17
-----------------	-----------------------------------	---	-----------

## **PART A : OVERVIEW**

### **1. INTRODUCTION**

- 1.1 Electronic money (e-money) is a payment instrument that contains monetary value that is paid in advance by the user to the e-money issuer. The user of e-money can make payments for purchases of goods and services to merchants who accept the e-money as payment.
- 1.2 E-money can be issued in different forms, such as card-based (e.g. prepaid card) and network-based which can be accessible via the internet, mobile phones or any other devices.
- 1.3 There are two types of e-money schemes, i.e. small scheme and large scheme, which is determined by the purse size and the outstanding e-money liabilities.

### **2. OBJECTIVE**

- 2.1 The main regulatory objective in overseeing e-money operations is to promote the safety and soundness of e-money schemes, and therefore enhance users' confidence in the usage of e-money.
- 2.2 Although a failure or disruption in e-money schemes is unlikely to cause financial system instability, it may have an adverse impact on public's confidence in electronic payment instruments. Therefore, prudent and safe management of e-money schemes is crucial to ensure wider acceptance and success of electronic payment modes.
- 2.3 This Guideline outlines the broad principles and minimum standards to be observed by e-money issuers in relation to the operation of their e-money schemes.

BNM/RH/GL 016-3	Payment Systems Policy Department	Guideline on Electronic Money (E-Money)	Page 2/17
-----------------	-----------------------------------	---	-----------

### 3. SCOPE

- 3.1 This Guideline stipulates the operational requirements for all e-money issuers (Part B) and specific requirements for large e-money issuers (Part C).

### 4. APPLICABILITY

- 4.1 This Guideline is applicable to all e-money issuers in Malaysia, including licensed institutions. However, Part C is only applicable to issuers of large e-money schemes that are not licensed institutions.
- 4.2 E-money issuers are required to adopt the principles and the minimum standards in this Guideline, taking into consideration the nature, size and complexity of their e-money schemes.

### 5. DEFINITION

- 5.1 For the purpose of this Guideline, the following terms are defined as follows:
- 5.1.1 *E-money* is defined in the Payment Systems (Designated Payment Instruments) Order 2003 as a payment instrument, whether tangible or intangible that:
- i. stores funds electronically in exchange of funds paid to the issuer; and
  - ii. is able to be used as a means of making payment to any person other than the issuer.
- 5.1.2 *Issuer of e-money* refers to any person that is responsible for the payment obligation and assumes the liabilities for the e-money being issued.
- 5.1.3 *User* refers to any person to whom the e-money has been issued or any person who uses the e-money to make payments for purchases of goods and services.
- 5.1.4 *Merchant* refers to any person that accepts the e-money as payment for their goods and services.

BNM/RH/GL 016-3	Payment Systems Policy Department	Guideline on Electronic Money (E-Money)	Page 3/17
-----------------	-----------------------------------	---	-----------

5.1.5 *Reload agent* refers to any person that accepts payment on behalf of the issuer for the purpose of adding monetary value to the e-money.

5.1.6 *Purse limit* means the maximum monetary value that can be stored in an e-money instrument.

5.1.7 *Licensed institution* refers to any person licensed under the Banking and Financial Institutions Act 1989 (BAFIA), Islamic Banking Act 1983 (IBA) and Development Financial Institutions Act 2002 (DFIA).

5.1.8 *Outstanding e-money liabilities* refer to the unutilised amount of e-money which has been issued and the utilised amount of e-money which is pending payment to merchants.

5.1.9 *Large e-money scheme* refers to e-money scheme with:

- i. Purse limit exceeding RM200

The maximum purse limit for large scheme is capped at RM1,500 or any amount as approved by the Bank; or

- ii. Outstanding e-money liabilities<sup>1</sup> for 6 consecutive months amounting to RM1 million or more.

5.1.10 *Small e-money scheme* refers to e-money scheme with:

- i. Purse limit not exceeding RM200; and
- ii. Outstanding e-money liabilities of less than RM1 million.

## **6. LEGAL PROVISIONS**

6.1 This Guideline is issued pursuant to Sections 25 and 70 of the Payment Systems Act 2003 (PSA).

6.2 Issuers of e-money are required to obtain approval from Bank Negara Malaysia (the Bank) pursuant to Section 25(1) of the Payment Systems Act 2003.

---

<sup>1</sup> Average outstanding e-money liabilities for the month.

BNM/RH/GL 016-3	Payment Systems Policy Department	Guideline on Electronic Money (E-Money)	Page 4/17
-----------------	-----------------------------------	---	-----------

6.3 An issuer of e-money shall be a company incorporated under the Companies Act 1965.

## **PART B : OPERATIONAL REQUIREMENTS**

### **7. PRINCIPLE 1: ESTABLISH ADEQUATE GOVERNANCE AND OPERATIONAL ARRANGEMENTS**

7.1 An issuer of e-money should establish adequate governance arrangements, which are effective and transparent, to ensure the continued integrity of its e-money scheme, which include, among others, the following:

7.1.1 A board of directors and management that consists of people with calibre, credibility, integrity, and fulfil the fit and proper criteria as stipulated in Appendix I. The major responsibilities of the board are outlined in Appendix 2.

7.1.2 Clearly defined and documented organisational arrangements, such as ownership and management structure.

7.1.3 Segregation of duties and internal control arrangements to reduce the chances of mismanagement and fraud.

7.2 An issuer of e-money should establish adequate operational arrangements for its e-money scheme, which include the following:

- i. Rules and procedures setting out the rights and liabilities of the issuer and the user, and the risks the user may incur;
- ii. Measures to ensure prudent management of the funds collected from users, including measures to ensure that such funds are available for repayment to users;
- iii. Measures to ensure safety, security and operational reliability of the e-money, including contingency arrangements; and
- iv. Maintain separate records and accounts for its e-money activities from other business activities

BNM/RH/GL 016-3	Payment Systems Policy Department	Guideline on Electronic Money (E-Money)	Page 5/17
-----------------	-----------------------------------	---	-----------

## **8. PRINCIPLE 2: ENSURE PROPER RISK MANAGEMENT IS IN PLACE**

8.1 An issuer of e-money should establish appropriate risk management infrastructure and processes for its e-money operations. The issuer should ensure that its systems have adequate security and internal controls to ensure the safety and integrity of the e-money data and records, effective fraud detection and resolution mechanism, and proper risk management arrangements. Robust and well-tested contingency arrangements should also be in place to address operational disruptions. Issuers should implement operational and security safeguards which commensurate with the scale and complexity of their schemes.

### **Operational risk**

- 8.2 Operational risk arises from the potential for loss due to inadequate or failed internal processes, people and systems, external factors, and fraud.
- 8.3 A high level of system availability is required to maintain public confidence. Issuers have to ensure that they have resources and capacity in terms of hardware, software and other operating capabilities to deliver consistently reliable service.
- 8.4 Measures to ensure operational reliability include, but are not limited to, the following:
- i. The system is robust in its design, development, testing, implementation and monitoring;
  - ii. Strong internal controls for systems and personnel administration;
  - iii. Comprehensive and well-documented operational and technical procedures to ensure operational reliability;
  - iv. System should be designed with sufficient capacity, which is monitored and upgraded ahead of business changes;

BNM/RH/GL 016-3	Payment Systems Policy Department	Guideline on Electronic Money (E-Money)	Page 6/17
-----------------	-----------------------------------	---	-----------

- v. Robust clearing and settlement arrangements to ensure that the system will operate in an efficient, reliable and secured manner;
- vi. The system has a robust business continuity framework, which includes a highly reliable backup system;
- vii. The system has the capacity to provide timely and accurate audit trail and statistical information and reports;
- viii. Adequate information and accounting systems, and proper reconciliation process and accounting treatment for e-money transactions; and
- ix. Establishment of fraud risk management which includes risk identification, assessment and mitigation strategies.

### **Security risk**

8.5 Security vulnerabilities in e-money system can pose significant threat to the integrity of e-money scheme as they increase the risk of fraud, such as counterfeiting.

8.6 Mitigation measures include, but are not limited to, the following:

- i. Implementation of a robust security risk management framework that will be able to actively identify, assess, reduce and monitor security risk, and address the following:

- (a) Data confidentiality

Confidentiality is the assurance that sensitive information remains private and not viewed or used by those unauthorised to do so. All confidential data should be maintained in a secured manner and protected from unauthorised viewing or modification during transmission and storage.

- (b) System and data integrity

System and data integrity refers to the accuracy, reliability and completeness of information processed, stored or transmitted.

BNM/RH/GL 016-3	Payment Systems Policy Department	Guideline on Electronic Money (E-Money)	Page 7/17
-----------------	-----------------------------------	---	-----------

(c) Authentication

The process of authentication is to validate the claimed identity of the user. A variety of authentication tools and methods can be adopted by e-money issuers to authenticate the users and merchants of its e-money system.

(d) Non-repudiation

Non-repudiation is a process to ensure that electronic messages are not being repudiated by its sender or receiver.

- ii. Deployment and adoption of an appropriate system security infrastructure and authentication mechanism, which should commensurate with the nature and complexity of the e-money's system design, architecture and platform, and are further complemented with the implementation of procedural safeguards to detect and protect against fraud and hacking.

### **Outsourcing risk**

8.7 An issuer that outsource the operational activities of e-money should ensure regular due diligence on the outsourcing service provider is carried out. It should also periodically review the suitability and performance of the service providers. The outsourcing arrangements should include the following:

- i. Comprehensive outsourcing agreement which should include clearly defined roles and responsibilities of the service provider;
- ii. Robust confidentiality and security procedures and controls; and
- iii. Sound business continuity management.

8.8 Issuers are also required to comply with the conditions stipulated in Appendix 3.

BNM/RH/GL 016-3	Payment Systems Policy Department	Guideline on Electronic Money (E-Money)	Page 8/17
-----------------	-----------------------------------	---	-----------

**9. PRINCIPLE 3: ENSURE THAT THE RISKS OF USING E-MONEY, AND RIGHTS AND RESPONSIBILITIES OF ALL STAKEHOLDERS ARE CLEARLY DEFINED AND DISCLOSED**

- 9.1 An issuer of e-money must ensure that the rights and responsibilities of all its stakeholders (e.g. users and merchants) are clearly set out in the relevant contractual documents. The terms and conditions for the use of e-money should be easily accessible and understood.
- 9.2 Measures to address consumer protection, education and privacy must be put in place. Among others, an issuer should ensure that:
- i. Its client charter, at the minimum, includes its commitment towards ensuring safe operations, privacy of customer information, reliable and quality service, transparency of product and services, and prompt response to enquiries, complaints, refund and disputes;
  - ii. A system to address complaints or queries raised by users, and a dispute resolution mechanism, are available;
  - iii. Adequate warning statements are provided to users and merchants on the risk of loss arising from insolvency of issuer, lost or stolen e-money instruments, or fraudulent transactions.
- 9.3 An issuer of e-money should provide clear terms and conditions for the use of the e-money, which should be made available through various channels, including the issuer's website, brochures and registration form (user's and merchant's copy). Issuer must obtain acknowledgement from its users and merchants **prior** to their participation in the scheme. The details should include, but not limited to, the following:
- i. Type of payments that can be made with the e-money;
  - ii. All applicable fees and charges;
  - iii. Availability of user's statement;
  - iv. Procedures for reporting lost or stolen e-money and lodging

BNM/RH/GL 016-3	Payment Systems Policy Department	Guideline on Electronic Money (E-Money)	Page 9/17
-----------------	-----------------------------------	---	-----------

a complaint, including dispute resolution avenues and process;

- v. Refund policy including refund conditions, procedures, time frame and cost;
- vi. Rights and responsibilities of users and merchants;
- vii. User's and merchant's liability for damaged, lost, malfunctioned, or stolen e-money instrument or value, and fraudulent transaction, including illegal reload of e-money; and
- viii. Customer service contact number(s) as well as details of Bank Negara Malaysia's LINK and TELELINK.

9.4 Users and merchants should be given at least 21 days notice before any variation to the terms and conditions may take effect.

## **10. PRINCIPLE 4<sup>2</sup>: ENSURE PRUDENT MANAGEMENT OF FUNDS**

10.1 An issuer of e-money should manage the funds collected from users prudently to ensure timely refund of the e-money balances to users and payment to merchants. Issuers should also ensure that they have sufficient liquidity for their daily operations. To avoid commingling of funds, the funds collected from users should be deposited and managed separately from the issuer's working capital funds.

10.2 An issuer of a large e-money scheme should deposit the funds collected in exchange of the e-money issued in a trust account with a licensed institution in a timely manner, which shall be governed as follows:

- (a) The trust account shall be established in accordance with the Trustee Act 1949;
- (b) The funds can only be used for the following:

---

<sup>2</sup> Principle 4 is applicable to issuers that are not licensed institutions.

BNM/RH/GL 016-3	Payment Systems Policy Department	Guideline on Electronic Money (E-Money)	Page 10/17
-----------------	-----------------------------------	---	------------

- (i) refund to users; and
  - (ii) payment to merchants.
- (c) The funds may only be invested in high quality liquid ringgit assets which are limited to deposits placed with licensed institutions; debt securities issued or guaranteed by the Federal Government and Bank Negara Malaysia; Cagamas debt securities, and other instruments as may be specified by the Bank;
- (d) Any revenue earned from the investment of the funds in the trust account may be used only for 10.2 (b) above unless the funds are in excess of the total outstanding e-money liabilities;
- (e) Payment for any costs, charges and expenses incurred in connection with the administration of the trust account can be made from the trust account only if the balance in the trust account after deduction of the cost, charges and expenses is sufficient to cover all outstanding e-money liabilities;
- (f) Issuers who are unable to restrict their activities to e-money business only shall deposit and maintain an additional 2% of their outstanding e-money liabilities in the trust account at all times; and
- (g) The issuer shall submit to the Bank a copy of the trust deed upon the establishment of the trust account.
- 10.3 For issuers of a small e-money scheme, the funds collected in exchange of the e-money issued, should be placed in a deposit account with a licensed institution, separated from its other accounts, and should be managed by the issuer in a manner akin to a trust account arrangement. Issuer should ensure that:
- (a) The funds in the deposit account can only be used to refund users and make payment to merchants; and

BNM/RH/GL 016-3	Payment Systems Policy Department	Guideline on Electronic Money (E-Money)	Page 11/17
-----------------	-----------------------------------	---	------------

(b) The funds shall not be invested in any form of assets other than as bank deposits. Any revenue earned from the deposit may be used only for 10.3 (a) above unless the funds are in excess of the total e-money liabilities.

10.4 Issuers should top up in a timely manner the funds in their deposit or trust accounts if their outstanding e-money liabilities are greater than the funds in those accounts.

#### **11. PRINCIPLE 5: ENSURE TIMELY REFUND OF STORED VALUE IN THE E-MONEY**

11.1 Issuers of e-money should provide refunds of e-money balances in their users' accounts should they decide to close their account, no longer wish to use the service, or was wrongly charged due to technical discrepancies. For this purpose, issuers may wish to maintain a register on their users.

11.2 The sum refunded should be made without any additional cost other than what is necessary to complete the refund transaction, and must be done in not more than a month from the date the claim is made.

#### **12. PRINCIPLE 6: IMPLEMENT ADEQUATE MEASURES TO PREVENT THE USE OF E-MONEY FOR MONEY LAUNDERING, AND ENSURE COMPLIANCE WITH OTHER REQUIREMENTS**

12.1 E-money may be an attractive vehicle for money laundering as it provides transacting parties with immediate, convenient and potentially anonymous means to transfer financial value. In this regard, an issuer of e-money should ensure that the design and implementation of its e-money scheme reduces the opportunities and incentives for such abuse and provides the means to filter out suspicious activities.

12.2 An issuer of e-money should conduct customer due diligence on potential merchants who apply to participate in its scheme. Issuers should look into the company's background to ascertain

BNM/RH/GL 016-3	Payment Systems Policy Department	Guideline on Electronic Money (E-Money)	Page 12/17
-----------------	-----------------------------------	---	------------

that the merchant is not a front for criminal or illegal activities.

- 12.3 An issuer of e-money should comply with the Anti-Money Laundering and Anti-Terrorism Financing Act 2001 (AMLA) and the relevant regulations and guidelines pertaining to money laundering and terrorism financing.
- 12.4 An issuer of e-money should ensure that all transactions in Malaysia are in ringgit. Prior permission from the Controller of Foreign Exchange (the Controller) under section 5 of the Exchange Control Act 1953 (ECA) is required for transactions to be made in foreign currency between residents.
- 12.5 Prior permission of the Controller under section 10 of the ECA is required for a non-bank e-money issuer to provide cross-border/international transactions.
- 12.6 E-money is subjected to the Unclaimed Moneys Act 1965 (UMA).
- 12.7 An issuer of e-money shall comply with all the relevant regulations or guidelines issued by the Bank from time to time.

### 13. OTHERS

#### Prohibition

- 13.1 An issuer of e-money **shall not**:-
- (i) issue the e-money at a discount, i.e. issue e-money that has a monetary value greater than the sum received;
  - (ii) use the money collected to extend loans to any other persons;
  - (iii) extend credit to the user, or pay interest or profit on the e-money balances, or anything else that would add to the monetary value of the e-money; and
  - (iv) associate, link or use the e-money scheme or platform to conduct illegal activities.
- 13.2 Merchants and reload agents who are also users of e-money should maintain a separate user account for making payments for

BNM/RH/GL 016-3	Payment Systems Policy Department	Guideline on Electronic Money (E-Money)	Page 13/17
-----------------	-----------------------------------	---	------------

purchase of goods and services.

### **Submission Requirements**

13.3 An issuer of e-money shall submit to the Bank:

- (i) Its annual audited financial statements not later than three months after its financial year end, and any other information required by the Bank; and
- (ii) Monthly statistical report on the operation of its e-money scheme. The statistical information for each month must be submitted to the Payment Systems Policy Department of the Bank not later than the 15<sup>th</sup> day of the following month.

### **PART C : SPECIFIC REQUIREMENTS FOR LARGE E-MONEY ISSUERS**

- 14.1 Issuers of a large e-money scheme are required to comply with the trust account requirements as stipulated in paragraph 10.2.
- 14.2 Issuers are required to maintain, at all times, minimum shareholders' funds unimpaired by losses of RM5 million or 8% of their outstanding e-money liabilities<sup>3</sup>, whichever is higher.
- 14.3 Issuers shall submit independent audit reports of their e-money systems as and when required by the Bank.

---

<sup>3</sup> Monthly average of outstanding e-money liabilities in the preceding six months.

<b>BNM/RH/GL 016-3</b>	<b>Payment Systems Policy Department</b>	<b>Guideline on Electronic Money (E- Money)</b>	<b>Page 14/17</b>
------------------------	--	---	-----------------------

## **Appendix I**

The following criteria should be taken into consideration in determining if an individual is 'fit and proper' to hold the position of director or senior management:

- (a) His probity, diligence, competence and soundness of judgement;
- (b) His reputation, character, integrity and honesty;
- (c) His history of offence(s) involving fraud, dishonesty and violence;
- (d) Whether he had engaged in deceitful, oppressive or improper business practices or any practices which would discredit him;
- (e) Whether he had engaged, associated or conducted himself in a manner which may cast doubt on his fitness, competence and soundness of judgement;
- (f) Whether he had contravened any provision made by or under any written law appearing to the Bank to be designed for protecting members of the public against financial loss due to dishonesty, incompetence or malpractice; and
- (g) Whether he has been declared a bankrupt.

The Bank may specify other criteria as and when necessary.

<b>BNM/RH/GL 016-3</b>	<b>Payment Systems Policy Department</b>	<b>Guideline on Electronic Money (E- Money)</b>	<b>Page 15/17</b>
------------------------	--	---	-----------------------

## **Appendix 2**

The major responsibilities of the board include:

- (a) Determine, review and approve strategies, business plans and significant policies, including its risk appetite and monitor management's performance in implementing them;
- (b) Set corporate values and clear lines of responsibility and accountability that are communicated throughout the organisation;
- (c) Ensure competent management;
- (d) Ensure that the operations of the business are conducted prudently, and within the framework of relevant laws and policies;
- (e) Ensure that comprehensive risk management policies, processes and infrastructure, and effective operationalisation of the risk controls to manage the various types of risks, are in place and effective; and
- (f) Establish an effective internal audit function.

BNM/RH/GL 016-3	Payment Systems Policy Department	Guideline on Electronic Money (E-Money)	Page 16/17
-----------------	-----------------------------------	---	------------

### Appendix 3

Conditions and safeguards for outsourcing of e-money operations:

- (a) Perform due diligence review on the capabilities and expertise of the outsourcing service provider prior to the selection;
- (b) Approval from the Board of Directors to outsource the function must be obtained and documented;
- (c) Issuers must ensure that the outsourcing service provider must provide a written undertaking to the issuer to comply with the secrecy provision pursuant to section 73 of the PSA;
- (d) Issuer must enter into a service agreement with the outsourcing service provider. The service agreement should contain the following:
  - (i) clause on professional ethics and conduct in performing their duties;
  - (ii) clearly defined roles and responsibilities of the outsourcing service provider; and
  - (iii) clearly stipulated that the issuer reserves the right to terminate the services of the outsourcing service provider if it fails to comply with the conditions imposed.
- (e) Issuer must put in place proper reporting and monitoring mechanisms to ensure that the integrity and quality of work conducted by the outsourcing service provider is maintained;
- (f) Regular testing and review of the work done by the outsourcing service provider must be conducted. The outsourcing service provider must also provide regular reports to the management of issuer pertaining to the progress of the work conducted;
- (g) The external and internal auditors of issuer must be able to review the books and internal controls of the outsourcing service provider. Any weaknesses highlighted during the audit must be well-documented and promptly rectified especially where such

<b>BNM/RH/GL 016-3</b>	<b>Payment Systems Policy Department</b>	<b>Guideline on Electronic Money (E- Money)</b>	<b>Page 17/17</b>
------------------------	--	---	-----------------------

weaknesses may affect the integrity of the internal controls of the issuer; and

- (h) Issuer must also have a contingency plan in the event that the arrangement with the outsourcing service provider is suddenly terminated. This is to mitigate any significant disruption in the operation of the e-money scheme. The contingency plan must be reviewed from time to time to ensure that the plan is current and ready for implementation in the event of sudden termination of the service provider. The contingency plan must also be approved by the Board of Directors of the issuer.
- (i) Bank Negara Malaysia reserves the right to audit the service provider, if necessary.