



Green World FinTech Service Co., Ltd.

# **Business-to-Consumer (B2C) E-Invoice API Specification**

V 2.2.7

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## Version History:

Version	Date	Content
V2.0.0	2016/08/19	Create
V2.0.1	2016/10/18	Content Format Adjustment and Process Flow Revision
V2.0.2	2017/01/12	Addition of "Preliminary Preparation" item caution explanation
V2.0.3	2017/01/26	Adjust Item Name (Item Name) parameter length limitation
V2.0.4	2017/02/07	Document format adjustment
V2.0.5	2017/02/13	Adjust E-Invoice issuing API's PayType (Transaction Type) parameter to become a required parameter
V2.0.6	2017/03/13	Adding other parameter for query E-Invoice API: [PosBarCode], [QRCode_Left], [QRCode_Right].
V2.0.7	2017/03/20	Document format adjustment
V2.0.8	2017/04/12	Related parameter adjustment explanation, check digit example revision
V2.0.9	2017/05/11	Explanation of parameter adjustment of NotifyMail, NotifyPhone of the allowance issuing API
V2.1.0	2017/05/17	Adjust CustomerName (Customer Name) parameter length limitation
V2.1.1	2017/05/23	Adjust necessity to remove check digit parameter when querying E-Invoice explanation parameters ItemName, ItemWord, ItemRemark, E-Invoice Remark.
V2.1.2	2017/06/02	<ol style="list-style-type: none"> <li>Adjust necessity to remove check digit parameter when querying discount detail explanation parameters ItemName, ItemWord.</li> <li>Optimize [NotifyURL][CarruerNum] parameter explanation content</li> </ol>
V2.1.3	2017/06/29	Adjust footnote explanation of E-InvoiceDate parameter.
V2.1.4	2017/07/24	Add E-Invoice issuing cautionary item explanation
V2.1.5	2017/07/31	<ol style="list-style-type: none"> <li>Adjust explanation of E-Invoice issuing API parameter [Print], [Donation], [CarruerType]</li> <li>Add E-Invoice issuing setting reference diagram</li> </ol>
V2.1.6	2017/08/29	Adjust explanation of E-Invoice detail query API parameters [IIS_Award_Flag], [IIS_Award_Type]
V2.1.7	2017/09/27	Adjust member carrier and merchantcarrier, unified name of Green World E-Invoice carrier
V2.1.8	2017/10/06	E-invoice invalidation and E-invoice allowance invalidation deadline is changed from the 15th to the 13th of each month
V2.1.9	2017/11/10	Adjust citizen digital certificate's carrier and mobile carrier code explanation
V2.1.10	2017/11/16	Adjust explanation for E-invoice donation code sequence format Adjust explanation of parameters [CustomerName], [ItemTaxType] in the allowance issuance API
V2.1.11	2017/12/08	Adjustment of E-invoice issuance parameter for donation notes Adjust [InvoiceNo] parameter to be required for E-Invoice issuing notification API (Originally was: If content category [InvoiceTag] was I or II then it was required)
V2.1.12	2017/12/26	Optimize explanation of E-Invoice issuance-delayed invoiced issuance API parameter [NotifyURL].
V2.1.13	2018/01/11	Adjust explanation of invoice detail query API parameter [QRCode_Right]
V2.1.14	2018/01/22	Addition of recommended donation code and adjust check digit reference
V2.1.15	2018/02/21	Addition of cautionary item explanation for delayed invoice issuance (Reserved invoice issuance) parameter NotifyURL
V2.1.16	2018/02/26	Adjust cautionary item form format Added lead-preparation cautionary item explanation, each sequence only support TLS 1.2 or above encoded communication protocol
V2.1.17	2018/03/23	Adjust E-Invoice issuance parameter [CustomerID] customer code to customer ID Adjust carrier code parameter explanation, add Green World member carrier code explanation
V2.1.18	2018/05/03	In accordance to the Ministry of Finance's revision of "Non-physical E-invoice" to "cloud E-Invoice", "Charity Code" to "donation code", "Social welfare organizations" to "Donated organizations or groups"
V2.1.19	2018/08/20	Adjust customer name parameter, customer name length from 30 bytes to 60 bytes Revise explanation content of parameters TaxType, IIS_Tax_Type, ItemTaxType
V2.2.0	2018/08/23	Addition of On-line allowance issuance API
V2.2.1	2018/09/10	Revise parameter explanation of ClearanceMark clearance method
V2.2.2	2018/11/07	Adjust lottery winning type parameter explanation and E-invoice issuance information setting graphic characters

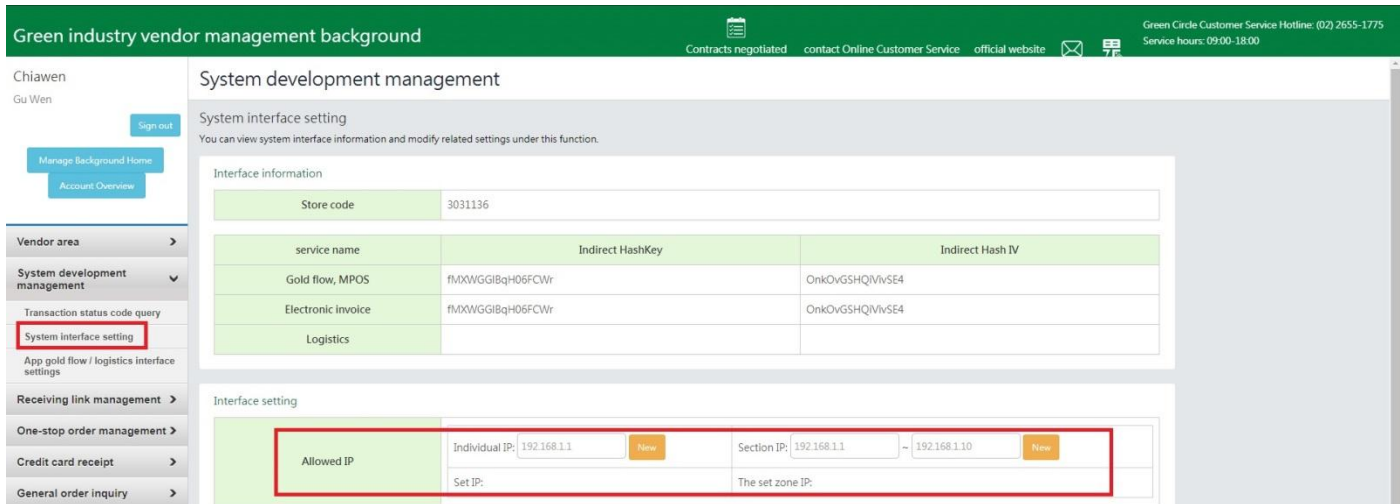
V2.2.3	2019/04/18	Added special notes for CarruerNum parameters
V2.2.4	2019/05/13	Add description in Application Example and special note into "11. Send E-Invoice Notification" in this API specification.
V2.2.5	2019/08/14	Remove description of fields: <a href="#">[InvType]</a> in this API document (remove possible value: 08). Adjust description of fields: <a href="#">[CarruerType]</a> and <a href="#">[Print]</a> in this API document. Add new new testing credentials into Preliminary Preparation (test Tax ID). Add new possible values into field's description: <a href="#">[IIS Turnkey Status]</a> (add new value: P).
V2.2.6	2019/08/20	Remove possible value of fields: <a href="#">[IIS Type]</a> in this API document (remove possible value: 08). Adjust login account/password of Merchant's Admin on Stage Environment.

## 1. E-Invoice Introduction

Green World provides merchants with an API to integrate E-Invoice functionality, which also can upload the E-Invoice to the Ministry of Finance within 48 hours. If the customer has corresponding "carrier" (Such as Citizen Digital Certificate), then there is no need to print the paper E-Invoice and can directly store it within the carrier. The API also provides E-Invoice query functions, allowing the merchant to integrate the function to its website (Hereinafter mentioned as merchant's system) and allow customers to search for the E-Invoices on the web. The merchant can also notify the sending of E-Invoices via E-mail or by SMS.

## 2. Preliminary Preparation

- Head to the "Green World merchant's admin website->System Development Management->System Interface Setting" Setting [Approved IP], to allow connection of future API.  
(**Special note:** Due to information security concerns, Green World will limit the access of interfacing IP addresses, so it is necessary to fill in the [Allowed IP] parameter in the merchant system Server's outgoing IP address).



Green industry vendor management background

Chiawen  
Gu Wen

Sign out

Manage background Home

Account Overview

Vendor area

System development management

Transaction status code query

System interface setting

App gold flow / logistics interface settings

Receiving link management

One-stop order management

Credit card receipt

General order inquiry

System development management

System interface setting

You can view system interface information and modify related settings under this function.

Interface information

Store code	3031136	
service name	Indirect HashKey	Indirect Hash IV
Gold flow, MPOS	fMXWGGIBqH06FCWlr	OnkOvGSHQVivSE4
Electronic invoice	fMXWGGIBqH06FCWlr	OnkOvGSHQVivSE4
Logistics		

Interface setting

Allowed IP	Individual IP: 192.168.1.1	None	Section IP: 192.168.1.1	~ 192.168.1.10	None
	Set IP:		The set zone IP:		

Green Circle Customer Service Hotline: (02) 2655-1775  
Service hours: 09:00-18:00

(The above is transaled by Google translation; current merchant's admin website is in Chinese only).

- Stage Environment** credentials:  
When testing API calls, please use the following credentials.

※**Special note:**

- The following credential is on Stage environment (test mode). Do not use it on Production environment.
- When switching to Production, please replace the following credential with the real one in Production that merchants have. [Please click here to get a Production key.](#)

Content	Description
MerchantID	2000132
Account/password (Stage)	stagetest1234/test1234
The Tax ID number (on Stage).	53538851
Merchant's Admin Website (Stage)	<a href="https://vendor-stage.ecpay.com.tw">https://vendor-stage.ecpay.com.tw</a> This website can: 1. Search E-invoice 2. E-Invoice data maintenance and management
HashKey	ejCk326UnaZWKisg
HashIV	q9jcZX8Ib9LM8wYk

**※Special note:**

When receiving and transmitting Green WorldAPI notifications, please confirm the following items:

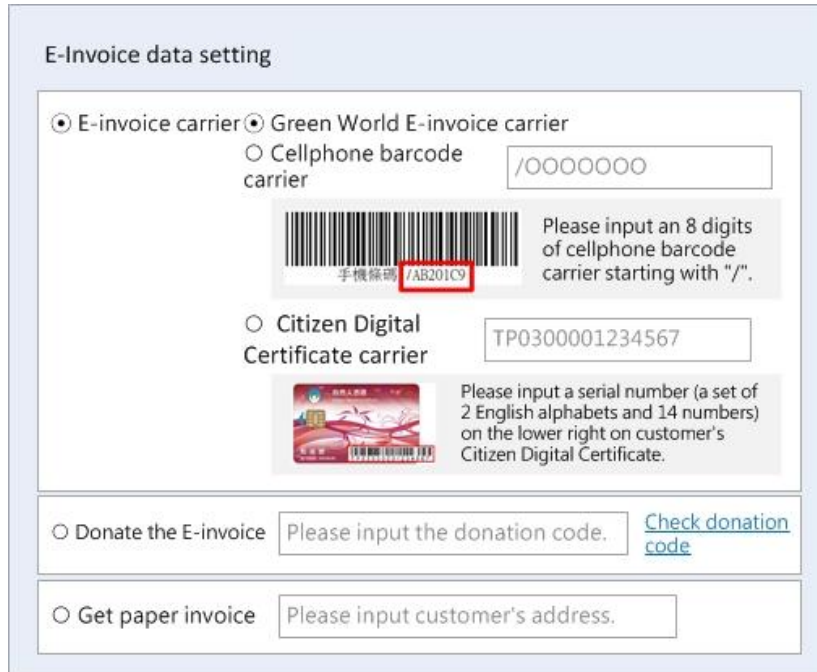
- (1) Please confirm whether the server is allowed through the firewall, to avoid the return notification from being blocked by the firewall.
- (2) Green WorldAPI's connection port only supports https (443 port), please use a legal DNS (Domain Name System).
- (3) Please confirm that each transaction parameter uses the Http POST method to transmit to the Green WorldAPI.
- (4) Please confirm the system's Server URL connection port is http 80 port and https 443 port.
- (5) Please do not store or display the key (HashKey, HashIV) within the front end page's program code, such as JavaScript, HTML, CSS..., or others to avoid the key from being stolen causing damage and transaction data leaks.
- (6) Chinese URLs are not supported for the return URL. For the value of URL field, please use the word converted into punycode. For example, 中文.tw is converted into xn--fig228c.tw (the xn--fig228c.tw should be in use).
- (7) If you would like to use the E-Invoice service, please provide your application to Green World.
- (8) To ensure customer rights and web transaction security, Green World only supports TLS 1.2 or above encrypted communication protocols.

### 3. Issue E-Invoice

#### (1) Normal E-Invoice Issuance (Immediate Issuance)

- How to use:


Once Green World receives the E-Invoice issuance data from the merchant, we will immediately upload to the E-invoice to the Ministry of Finance and simultaneously notify the customer that the E-Invoice has been issued. The merchant can provide the following E-Invoice data setting items for the customer to choose from (Please refer to the following example, the merchant can also their own design) at the shopping cart or member information page.




**E-Invoice data setting**

☒ E-invoice carrier ☒ Green World E-invoice carrier

☐ Cellphone barcode carrier

 Please input an 8 digits of cellphone barcode carrier starting with "/".

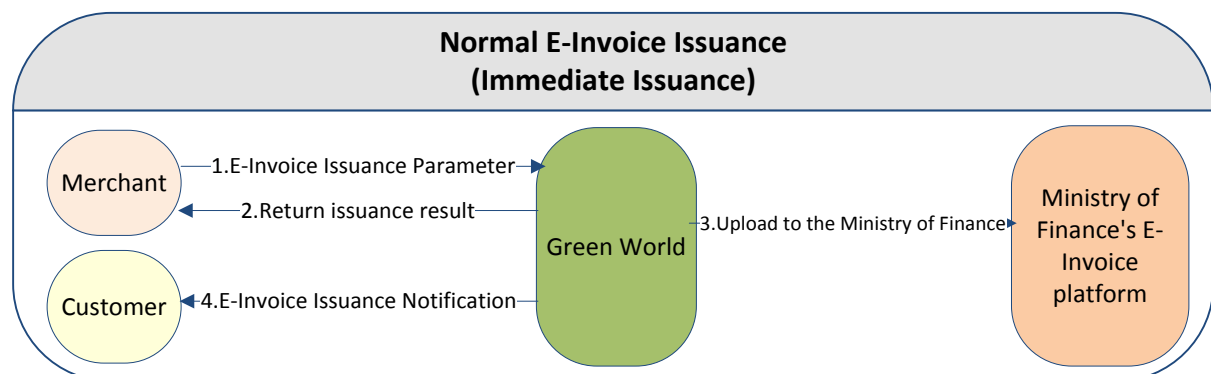
☐ Citizen Digital Certificate carrier

 Please input a serial number (a set of 2 English alphabets and 14 numbers) on the lower right on customer's Citizen Digital Certificate.

☐ Donate the E-invoice  [Check donation code](#)

☐ Get paper invoice

- **Special note:** Reminder! Based on the Uniform Invoice Usage Method Rule 9 Item 1 Regulation 4, the merchant merchandise and credit card user customer shall note the final 4 codes of the credit card on the invoice when issuing the Uniform Invoice.



(Diagram) General E-Invoice Issuance Demonstration Diagram



Role	Action	Description
Merchant	E-Invoice Issuance Parameter	Merchant calls for E-Invoice issuance (1) <a href="#">General E-Invoice Issuance</a> transmit E-Invoice issuance parameter.
Green World	Return issuance result	Receive and analyze E-Invoice issuance data transmitted by the merchant. Once E-Invoice data is confirmed correct, the Green World E-Invoice system will produce the merchant's E-Invoice data.
Green World	Upload to the Ministry of Finance	Once issuance is verified, Green World will upload the E-Invoice data to the Ministry of Finance's E-Invoice platform.
customer	E-Invoice Issuance Notification	Once the E-Invoice has been issued, Green World will notify the customer via a message that the E-Invoice has been issued.

- Application Example:  
Suitable for immediate E-Invoice issuance, the Green World system will immediately issue and upload the E-Invoice upon receiving the E-Invoice issuance parameter from the merchant system.
- API URL:
  - Stage: <https://einvoice-stage.ecpay.com.tw/Invoice/Issue>
  - Production: <https://einvoice.ecpay.com.tw/Invoice/Issue>
- The merchant request parameter (If there is a red asterisk \* before the name then it is required):

Parameter	Definition	Type	Detail	Example
*TimeStamp	Time Stamp	Int	<p>Green world will use the time of the parameter, transform it into a UnixTimeStamp to verify the time slot of this interface.</p> <p><b>Special note:</b></p> <ol style="list-style-type: none"> <li>The verification time slot is temporary set as effective for 5 minutes; if verification is not completed in time, the order will not be completed.</li> </ol> <p>Reference Information:  <a href="http://www.epochconverter.com/">http://www.epochconverter.com/</a> </p> <ol style="list-style-type: none"> <li>Merchant shall conduct the host "Time calibration" to ensure there is no time discrepancy between host to avoid the API from functioning normally.</li> </ol>	1439451807
*MerchantID	Merchant ID	String(10)	<ol style="list-style-type: none"> <li><a href="#">Test environment merchant ID</a></li> <li><a href="#">Obtain a cryptographic key for Production</a></li> </ol>	2000132
*RelateNumber	Merchant Custom Code	String(30)	Must be unique and non-repeated	123456789
CustomerID	Customer ID	String (20)	When the parameter has value, it can only accept characters such as "Alphabetic characters, Numerical digits, under line".	
CustomerIdentifie	merchant's	String(8)		53538851

Parameter	Definition	Type	Detail	Example
r	Tax ID			
CustomerName	Customer's name	String(30)	<ol style="list-style-type: none"> <li>When the printing note is 1 (Print), the parameter shall have a value.</li> <li>When the parameter has value, only characters such as Chinese or English characters and numbers are acceptable.</li> <li><b>Please make the parameter value a URL Encode</b>, if non .NET program language is used, then please refer to <a href="#">URL Encode Conversion Table</a> to convert the character.</li> </ol>	Green World FinTech Service Co., Ltd. URL Encode→ %e7%b6%a0%e7%95%8c%e7%a7%91%e6%8a%80%e8%82%a1%e4%bb%bd%e6%9c%89%e9%99%90%e5%85%ac%e5%8f%b8
CustomerAddr	Customer's address	String(100)	<ol style="list-style-type: none"> <li>When printing notes [Print] is 1 (print), the parameter must have a value.</li> <li><b>Please make the parameter value a URL Encode</b>, if non .NET program language is used, then please refer to <a href="#">URL Encode Conversion Table</a> to convert the character.</li> </ol>	Taipei City, Nangang Dist., Sanchong Rd., No.19-2, 6F-2 (Building D) URL Encode→ %e8%87%ba%e5%8c%97%e5%b8%82%e5%8d%97%e6%b8%af%e5%8d%80%e4%b8%89%e9%87%8d%e8%b7%af19-2%e8%99%9f56%e6%a8%93-2+(D%e6%a3%9f)
CustomerPhone	Customer's cell phone number	String(20)	<ol style="list-style-type: none"> <li>When the customer's email address[CustomerEmail] is an empty string, this parameter must have value.</li> <li>When the parameter has value, the format must be numerical.</li> </ol>	0912345678
CustomerEmail	Customer's email address	String(80)	<ol style="list-style-type: none"> <li>When the customer mobile phone number [CustomerPhone] is an empty string, this parameter must have value.</li> <li>Only accepts standard format Email.</li> <li><b>Please make the parameter value a URL Encode</b>, if non .NET program language is used, then please refer to <a href="#">URL Encode Conversion Table</a> to convert the character.</li> </ol>	<a href="mailto:abc@ecpay.com.tw">abc@ecpay.com.tw</a> Encode→abc%40ecpay.com.tw
ClearanceMark	Clearance Method	String(1)	When Tax Type[TaxType] is 2(Zero Tax), then the parameter shall be 1(Not via custom export) or 2(Via custom export).	2
* Print	Printing notes (whether to print this e-invoice or not)	String (1)	Possible values: <b>0:</b> Not to print, or the field [Donation] = 1. <b>1:</b> To print, or [CustomerIdentifier] has value. <b>Special note:</b> 1. If [Print] = 0, either [Donation] or [CarruerType] should have value.	0

Parameter	Definition	Type	Detail	Example
			2. If [Donation] = 1 and [CarruerType] has value, the priority to issue the E-invoice that will be donated.	
*Donation	Donation notes	String (1)	1. If for donation, the parameter shall be: 1. 2. If it shall not be for donation or the Unified Business No.[CustomerIdentifier] has value, the parameter shall be: 2. <b>Special note:</b> If the printing note [Print]=0(Do not print E-Invoice), either the donation note [Donation] or carrier type[CarruerType] has to have value.	1
LoveCode	Donation code	String (7)	If customer chooses to donate E-Invoice, then the Donation Code of the donated needs to be entered to this parameter. 1. If the donation note [Donation] = '1' (Donation), then this parameter shall have value. 2. Donation code is limited to numerical digits, a minimum of three and maximum of seven. Content is designated as "Character Format", first digit can be 0.	X123456
<b>Recommendation donation code</b> <b>168001</b> <b>OMG Charitable Foundation for Social Care</b> Setup up in 2009 with the goal of gathering the support of web users to deliver love and care to every corner of the society. Our Foundation strives to: Support the schooling of students under the poverty line or that lack education resources, protection of strays and animals in general, support of the elderly and minority, emergency support, humanitarian aid, social charity events and ad support...and others.				
CarruerType	Carrier type	String (1)	1. If there is no carrier, please keep the string empty 2. If it is a Green World E-Invoice carrier, then please fill in 1 3. If it is the customer's citizen digital certificate, then please fill in 2 4. If customer use E-Invoice cellphone carrier, please fill in 3. 5. If the Unified Business No.[CustomerIdentifier] has value, then the carrier type cannot be Green World E-Invoice carrier or a citizen digital certificate carrier. 6. When [Print] = 1, the carrier type cannot have value. <b>Special note:</b> If the printing note [Print]=0(Do not print E-Invoice), either the donation note [Donation] or carrier type[CarruerType] has to have value.	

Parameter	Definition	Type	Detail	Example
CarruerNum	carrierCode	String (64)	<ol style="list-style-type: none"> <li>When the carrier type [CarruerType]=""(no carrier), please empty the string, if the [CarruerType]="1"(Green World E-Invoicecarrier), then please empty the string, the system will fill in the value automatically.</li> <li>When the carrier type[CarruerType]="2"(customer's citizen digital certificate), then please fill in a fixed length of 16 and sequence format of 2 alphabet and 14 numerical digits.</li> <li>When the carrier type[CarruerType]="3"(customer's cellphone bar code), then please fill in a fixed length of 8 and sequence format of 1 code slash "/" followed by a sequence of 7 numerical digits, cap-sized alphabet characters, and symbols such as 【+】 【-】 【.】</li> </ol> <p><b>Special note:</b> When the cellphone carrier has a plus sign, then there might be an error during interfacing verification, please change the plus sign to a blank character. If the carrier number changes to mobile barcode carrier (a barcode of serial number on mobile), please firstly call <a href="#">Cellphone Bar Code Verification API</a>.</p>	12345678
*TaxType	Tax category	String(1)	<ol style="list-style-type: none"> <li>If it should be taxed, please fill in 1.</li> <li>If tax rate is zero, please fill in 2</li> <li>If it is duty free, please fill in 3.</li> <li>If it has a combined tax and duty free (Only when the register cannot discern, and has to be approved), please fill in 9.</li> </ol>	1
*SalesAmount	E-Invoice total amount (Tax included)	Int	<ol style="list-style-type: none"> <li>Please designate full numbers, no decimals allowed.</li> <li>New Taiwan Dollars only.</li> <li>Amount cannot be 0.</li> </ol>	100
InvoiceRemark	E-Invoice Notation	String(Max)	<ol style="list-style-type: none"> <li>When the parameter has value, the parameter shall be the URL Encode.</li> <li>The parameter shall be exempted when calculating the check digit</li> </ol>	Final 4 digits of a credit card 1234 URL Encode→ %e4%bf%a1%e7%94%a8%e5%8d%a1%e6%9c%ab4%e7%a2%bc1234

Parameter	Definition	Type	Detail	Example
*ItemName	Item Name	String (100)	<ol style="list-style-type: none"> <li>Preset cannot be an empty string and the format must be Name 1   Name 2   Name 3   ...   Name n, when there are 2 or more item name, the names are to be separated by the " " character.</li> <li>URL Encode shall originate from the parameter value.</li> <li>The parameter shall be exempted when calculating the check digit</li> </ol>	Name 1 Name 2 Name 3 URL Encode→ %E5%90%8D%E7%A8%B11%7C%E5%90%8D%E7%A8%B12%7C%E5%90%8D%E7%A8%B13
*ItemCount	Merchandise quantity	String (Max)	Preset cannot include an empty string and must be a quantity1   Quantity2   Quantity3   ...   Quantityn; if there are two or more item names, please separate with the " " character	1 2 3
*ItemWord	Merchandise units	String (Max)	<ol style="list-style-type: none"> <li>When there are more than two then please separate them with the " " character</li> <li>Maximum length of 6 characters</li> <li>The parameter shall be used as for URL Encode.</li> <li>The parameter shall be exempted when calculating the check digit</li> </ol>	Unit 1 Unit 2 Unit 3 URL Encode→%E5%96%AE%E4%BD%8D1%7C%E5%96%AE%E4%BD%8D2%7C%E5%96%AE%E4%BD%8D3
*ItemPrice	Merchandise price	String (Max)	The price cannot be an empty string, and the format must be Price 1  Price 2   Price 3   ...   Price n. When there are 2 or more product prices they must be separated by the " " symbol. <b>Note:</b> If VAT=0 (duty free), the item price should exclude tax. If VAT=1 (tax included), the item price should include tax.	44 55 66
ItemTaxType	Merchandise tax category	String (Max)	<ol style="list-style-type: none"> <li>Should be taxed</li> <li>Tax rate is zero</li> <li>Duty Free</li> </ol> <b>Special note:</b> <ol style="list-style-type: none"> <li>Preset is an empty string, when the tax category [TaxType] = 9, this parameter cannot be null.</li> <li>This parameter type is for singular item merchandise; For multiple items of merchandise, please separate with the character " ".</li> <li>When [TaxType]=9, [ItemTaxType] will need to discern the tax rate of each merchandise, amongst them should be at least 1 item that is 1(To be taxed) and another as 2(Duty Free) or 3(Tax rate is zero). Implying the combined tax</li> </ol>	1 1 3

Parameter	Definition	Type	Detail	Example
			rate E-Invoice can only be: 1 3(To be taxed and Duty Free) or 1 2(To be taxed and tax rate is zero).	
*ItemAmount	Merchandise total amount	String (Max)	This is the amount sum with tax included When there are more than two then please separate them with the " " character. <b>Note:</b> Please note this field should include tax and should follow the rule below: If VAT=1, [ItemPrice] (tax included) *[ItemCount] = [ItemAmount]	100 100 100
ItemRemark	Merchandise notation explanation	String (Max)	1. When there are more than two then please separate them with the " " character. 2. Each notation has a maximum length of 40 characters. 3. <b>URL Encode shall originate from the parameter value.</b> 4. <b>The parameter shall be exempted when calculating the check digit</b> <b>Special note:</b> If the note field includes " ", it shall be replaced by "##". We shall convert it back to " " when uploading to the Ministry of Finance.	Note field 1 Note field 2 Note field 3 URL Encode→%e5%82%99%e8%a8%bb1%7c%e5%82%99%e8%a8%bb2%7c%e5%82%99%e8%a8%bb3
*CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	
*InvType	E-Invoice Number Category	String(2)	Possible value: <b>07</b> : the invoice number category is regular.	07
vat	Whether merchandise unit price includes tax	String(1)	Preset as included tax price 1: Tax included 0: Tax not included	1

● Green World Response parameter:

Parameter	Definition	Type	Detail	Example
RtnCode	Response code	Int	1 is success, others are failure.	1
RtnMsg	Response	String(200)		E-Invoice issuance complete
InvoiceNumber	E-Invoice number	String(10)	If the issuance is successfully completed then a set of E-Invoice number will be sent in response; If the issuance failed then a blank value will be sent in response.	EV00004242
InvoiceDate	E-Invoice issuance time	String(20)	If the issuance is successfully completed, then it will send the issuance time in response, if not successful then a blank value will be sent.	2012-03-16 12:03:12
RandomNumber	Random code	String(4)		5528
CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

※Special note:

The issued result will be shown in a key-value format as "form-data" (Meaning: Parameter = value, separated by &), and then the parameter will be immediately sent back to the page, such as:

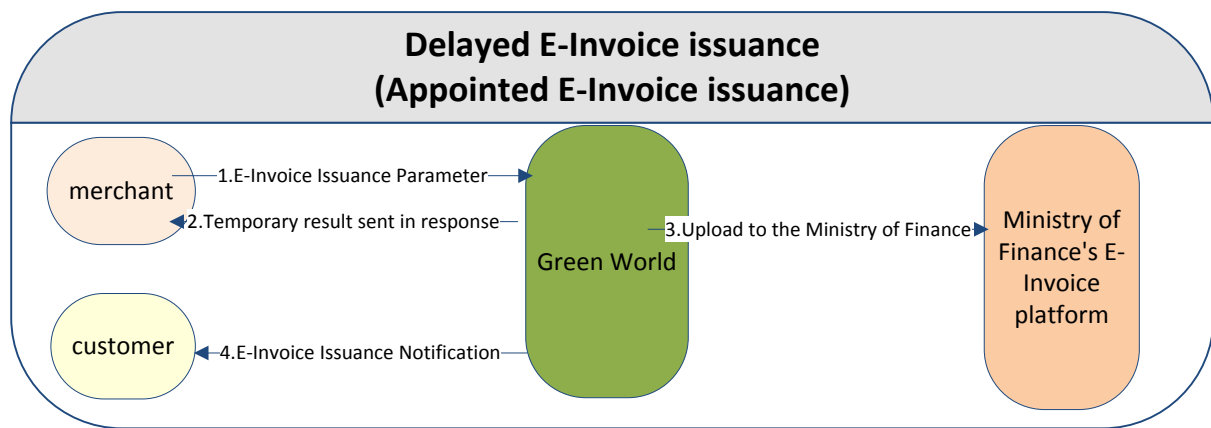
InvoiceDate=2016-02-25 17:18:57&InvoiceNumber=EV00004242&RandomNumber=5528&RtnCode=1&RtnMsg=開立發票成功&CheckMacValue=A6E8A40FF19717A4B169165B9C672FB4

## (2) Delayed E-Invoice issuance (Appointed E-Invoice issuance)

## ● How to use:

The merchant can use this function to transmit the E-Invoice issuance parameter to the Green World system in advance, where Green World will temporarily store the E-Invoice data until the delayed E-Invoice issuance time arrives. The system will automatically issue the E-Invoice and upload to the Ministry of Finance, simultaneously informing the customer that the E-Invoice has been issued.

**Special note:** Reminder! Based on the Uniform Invoice Usage Method Rule 9 Item 1 Regulation 4, the merchant merchandise and credit card user customer shall note the final 4 codes of the credit card on the invoice when issuing the Uniform Invoice.



(Diagram) Delayed E-Invoice issuance flowchart

Role	Action	Description
merchant	1. E-Invoice Issuance Parameter	The merchant calls for E-Invoice issuance (2) <a href="#">Delayed invoice issuance</a> and transmit E-Invoice parameter.
Green World	2. Temporary result sent in response	Receive and analyze E-Invoice issuance data transmitted by the merchant. Upon confirmation that the E-Invoice issuance data is correct, Green World E-Invoice system will produce the temporary merchant E-Invoice information.
Green World	3. Upload to the Ministry of Finance	When the delayed E-Invoice issuance time arrives, Green World will use the temporarily stored merchant E-Invoice to issue the E-Invoice and upload it to the Ministry of Finance's E-Invoice platform.
customer	4. E-Invoice Issuance Notification	Once the E-Invoice has been issued, Green World will notify the customer via a message that the E-Invoice has been issued.

## ● Application Example:

## I. Appointed E-Invoice issuance:

The merchant system can use this function to transmit the E-Invoice issuance parameter to Green World, where Green World will temporarily store the E-Invoice data until the appointed E-Invoice issuance time arrives. The system will automatically issue the E-Invoice and upload to the Ministry of Finance.

## II. Trigger E-Invoice issuance:

The merchant system can use this function to transmit the E-Invoice issuance parameter to the Green World system in advance, where Green World will temporarily store the E-Invoice data



until the E-Invoice issuance is confirmed. The merchant system will automatically issue the E-Invoice.

● API URL:

■ Stage: <https://einvoice-stage.ecpay.com.tw/Invoice/DelayIssue>

■ Production: <https://einvoice.ecpay.com.tw/Invoice/DelayIssue>

● The merchant request parameter (If there is a red asterisk\* before the name then it is required):

Parameter	Definition	Type	Detail	Example
*TimeStamp	Time stamp	Int	<p>Green world will use the time of the parameter, transform it into a UnixTimeStamp to verify the time slot of this interface.</p> <p><b>Special note:</b></p> <ol style="list-style-type: none"> <li>The verification time slot is temporary set as effective for 5 minutes; if verification is not completed in time, the order will not be completed.</li> </ol> <p>Reference Information:  <a href="http://www.epochconverter.com/">http://www.epochconverter.com/</a>.</p> <ol style="list-style-type: none"> <li>Merchant shall conduct the host "Time calibration" to ensure there is no time discrepancy between host to avoid the API from functioning normally.</li> </ol>	1439451807
*MerchantID	merchant ID	String(10)	<ol style="list-style-type: none"> <li><a href="#">Test environment merchant ID</a></li> <li><a href="#">Obtain a cryptographic key for Production</a></li> </ol>	2000132
*RelateNumber	merchantCustom Code	String(30)	<ol style="list-style-type: none"> <li>Must be unique and non-repeated</li> <li>Maximum length of 30 characters</li> </ol>	123456789
CustomerID	Customer ID	String (20)	When the parameter has value, it can only accept characters such as "Alphabetic characters, Numerical digits, under line".	
CustomerIdentifier	Unified Business No.	String(8)	Fix length of 8 numerical digits	53538851
CustomerName	Customer name	String(30)	<ol style="list-style-type: none"> <li>When printing notes [Print] is 1 (print), the parameter must have a value.</li> <li>When the parameter has value, only characters such as "Chinese or English characters and numbers" are acceptable.</li> <li><b>Please make the parameter value a URL Encode</b>, if non .NET program language is used, then please refer to <a href="#">URL Encode Conversion Table</a> to convert the character.</li> </ol>	Green World FinTech Service Co., Ltd. URL Encode→%e7%b6%a0%e7%95%8c%e7%a7%91%e6%8a%80%e8%82%a1%e4%bb%bd%e6%9c%89%e9%99%90%e5%85%ac%e5%8f%b8
CustomerAddr	Customer address	String(100)	<ol style="list-style-type: none"> <li>When printing notes [Print] is 1 (print), the parameter must have a value.</li> </ol>	Taipei City, Nangang Dist., Sanchong Rd., No.19-2, 6F.-2

Parameter	Definition	Type	Detail	Example
			<p>2. Please make the parameter value a URL Encode, if non .NET program language is used, then please refer to <a href="#">URL Encode Conversion Table</a> to convert the character.</p>	(Building D) URL Encode→%e8%87%ba%e5%8c%97%e5%b8%82%e5%8d%97%e6%b8%af%e5%8d%80%e4%b8%89%e9%87%8d%e8%b7%af19-2%e8%99%9f56%e6%a8%93-2+(D%e6%a3%9f)
CustomerPhone	Customer mobile number	String(20)	<p>1. When the customers email address [CustomerEmail] is an empty string, then this parameter is required to have value.</p> <p>2. Format is numerical digits.</p>	0912345678
CustomerEmail	Customer E-mail	String(80)	<p>1. When the customer mobile phone number [CustomerPhone] is an empty string, this parameter must have value.</p> <p>2. Format has to adhere to E-MAIL format.</p> <p>3. Please make the parameter value a URL Encode, if non .NET program language is used, then please refer to <a href="#">URL Encode Conversion Table</a> to convert the character.</p>	<a href="mailto:abc@ecpay.com.tw">abc@ecpay.com.tw</a> URLEncode→abc%40ecpay.com.tw
ClearanceMark	Clearance Method	String(1)	If <a href="#">Tax Category</a> [TaxType] is tax rate is zero, then the parameter shall need to fill in either 1(Not via custom export) or 2(Via custom export).	
* Print	Printing notes	String (1)	<p>Possible values:</p> <p>0: Not to print, or the field <a href="#">[Donation]</a> = 1.</p> <p>1: To print, or <a href="#">[CustomerIdentifier]</a> has value.</p> <p><b>Special note:</b></p> <p>1. If [Print] = 0, either <a href="#">[Donation]</a> or <a href="#">[CarruerType]</a> should have value.</p> <p>2. If <a href="#">[Donation]</a> = 1 and <a href="#">[CarruerType]</a> has value, the priority to issue the E-invoice that will be donated.</p>	0
* Donation	Donation notes	String (1)	<p>1. If for donation, the parameter shall be: 1.</p> <p>2. If it shall not be for donation or the Unified Business No.[CustomerIdentifier] has value, the parameter shall be: 0.</p> <p><b>Special note:</b></p> <p>If the printing note [Print]=0(Do not print E-Invoice), either the donation note <a href="#">[Donation]</a> or carrier type<a href="#">[CarruerType]</a> has to have value.</p>	1
LoveCode	Donation code	String (7)	<p>If the customer chooses to donate the E-Invoice, then the parameter shall need the receiver's donation code.</p> <p>1. If the donation note <a href="#">[Donation]</a> = '1' (Donation),</p>	

Parameter	Definition	Type	Detail	Example
			<p>then this parameter shall have value.</p> <p>2. Donation code is limited to numerical digits, a minimum of three and maximum of seven.</p> <p>Content is designated as "Character Format", first digit can be 0.</p>	
CarruerType	carrier type	String (1)	<p>1. If there is no carrier, please keep the string empty.</p> <p>2. If it is a Green World E-Invoice carrier, then please fill in 1</p> <p>3. If it is the customer's citizen digital certificate, then please fill in 2</p> <p>4. If it is the customer's cellphone bar code, then please fill in 3</p> <p>5. If the Unified Business No.[CustomerIdentifier] has value, then the carrier type cannot be Green World E-Invoice carrier or a citizen digital certificate carrier.</p> <p>6. When [Print] has value, the carrier type cannot have value.</p> <p><b>Special note:</b> If the printing note [Print]=0(Do not print E-Invoice), either the donation note [Donation] or carrier type[CarruerType] has to have value.</p>	
CarruerNum	Carrier code	String (64)	<p>1. When the carrier type [CarruerType]=""(no carrier), please empty the string, if the [CarruerType]="1"(Green World E-Invoice carrier), then please empty the string, the system will fill in the value automatically.</p> <p>2. When the carrier type[CarruerType]="2"(customer's citizen digital certificate), then please fill in a fixed length of 16 and sequence format of 2 alphabet and 14 numerical digits.</p> <p>3. When the carrier type[CarruerType]="3"(customer's cellphone bar code), then please fill in a fixed length of 8 and sequence format of 1 code slash "/" followed by a sequence of 7 numerical digits, cap-sized alphabet characters, and symbols such as +-. <b>Special note:</b> When the cellphone carrier has a plus sign, then</p>	12345678

Parameter	Definition	Type	Detail	Example
			there might be an error during interfacing verification, please change the plus sign to a blank character.	
*TaxType	Tax category	String(1)	Parameter value explanation as follows: 1. If it should be taxed, please fill in 1 2. If tax rate is zero, please fill in 2 3. If it is duty free, please fill in 3 4. If it has a combined tax and duty free (Only when the register cannot discern, and has to be approved), please fill in 9.	1
*SalesAmount	E-Invoice total amount (Tax included)	Int	1. Whole numbers only. Decimals are not accepted 2. New Taiwan Dollars only 3. Amount cannot be 0.	100
InvoiceRemark	E-Invoice Notation	String(Max)	1. When the parameter has value, <b>please designate the parameter shall be the URL Encode.</b> 2. <b>The parameter shall be exempted when calculating the check digit</b>	Final 4 digits of a credit card 1234 URL Encode→%e4%bf%a1%e7%94%a8%e5%8d%a1%e6%9c%ab4%e7%a2%bc1234
*ItemName	Item Name	String (100)	1. Preset cannot be an empty string and format shall be Name 1   Name 2   Name 3   ...   Name n. 2. When there are two or more item name, then it will need to be separated by " ". 3. <b>URL Encode shall originate from the parameter value.</b> 4. <b>The parameter shall be exempted when calculating the check digit</b>	Name 1   Name 2   Name 3 URL Encode→%E5%90%8D%E7%A8%B11%7C%E5%90%8D%E7%A8%B12%7C%E5%90%8D%E7%A8%B13
*ItemCount	Merchandise quantity	String (Max)	1. Preset cannot be an empty string and format shall be: Quantity 1   Quantity 2   Quantity 3   ...   Quantity n. 2. When there are two or more item name, then it will need to be separated by " ".	1 2 3
*ItemWord	Merchandise units	String (Max)	1. When there are more than two then please separate them with the " " character 2. Maximum length of 6 characters 3. <b>URL Encode shall originate from the parameter value.</b> 4. <b>The parameter shall be exempted when calculating the check digit</b>	Unit 1   Unit 2   Unit 3 URL Encode→%E5%96%AE%E4%BD%8D1%7C%E5%96%AE%E4%BD%8D2%7C%E5%96%AE%E4%BD%8D3

Parameter	Definition	Type	Detail	Example
*ItemPrice	Merchandise price	String (Max)	1. The price cannot be an empty string, and the format must be Price 1   Price 2   Price 3   ...   Price n. When there are 2 or more product prices they must be separated by the " " symbol.	44 55 66
ItemTaxType	Merchandise tax category	String (Max)	1: Should be taxed 2: Tax rate is zero 3: Duty Free <b>Special note:</b> 1. Preset is an empty string, when the tax category [TaxType] = 9, this parameter cannot be null. 2. This parameter type is for singular item merchandise; For multiple items of merchandise, please separate with the character " ". 3. When [TaxType]=9, [ItemTaxType] will need to discern the tax rate of each merchandise, amongst them should be at least 1 item that is 1(To be taxed) and another as 2(Duty Free) or 3(Tax rate is zero). Implying the combined tax rate E-Invoice can only be: 1 3(To be taxed and Duty Free) or 1 2(To be taxed and tax rate is zero).	1 1 3
*ItemAmount	Merchandise total amount	String (Max)	This is the subtotal with included tax, if there are more than two then please separate with the " " character	100 100 100
*CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	
*InvType	E-Invoice Number Category	String(2)	The E-Invoice's word track category. 07: General tax amount08: Special tax amount	07
*DelayFlag	Delayed notation	String(1)	Can note that this E-Invoice shall be issued with delay or via trigger 1: Delayed issuance 2: Trigger issuance	1
*DelayDay	Amount of delayed days	Int	1. If it is <a href="#">delayed issuance</a> , the delayed days will need to be within 1 to 15 days 2. <a href="#">Trigger issuance</a> can also designated delayed timing, but is limited to 0 to 15 days	<b>EX1:</b> DelayFlag=1(delay) DelayDay=7(days) <u>This will be issued automatically after 7 days</u> <b>EX2:</b> DelayFlag = 2(trigger) DelayDay=2(days) <u>This will be issued</u>

Parameter	Definition	Type	Detail	Example
				<u>two days after being triggered</u> , if this E-Invoice is not triggered, it will not be issued
*Tsr	Transaction Order	String(30)	1. Used as a basis to call <a href="#">trigger after payment completion or delayed invoice issuance API</a> . 2. Must be unique and non-repeated 3. Maximum length of 30 characters	
*PayType	Pay type	String(1)	Please fill in '2' automatically in the case of Green World	2
*PayAct	Pay type name	String(6)	Please fill in 'ECPAY' automatically	ECPAY
NotifyURL	Notify the merchant's system's website upon issuance completion	String(200)	When the E-Invoice has been issued, transmit the following parameter in response: Issuance success: inv_mer_id merchant ID Od_sob merchant custom order code Trs Transaction Order invoicedate E-Invoice issuance date invoicetime E-Invoice issuance time invoicenum Issued E-Invoice number invoicecode Issued E-Invoice check digit Inv_error error code Issuance failure: inv_mer_id merchant ID Od_sob merchant custom order code Trs Transaction Order Inv_error error code <b>Special note:</b> Test environment does not provide NotifyURL functions	

● Green World parameter transmit in response:

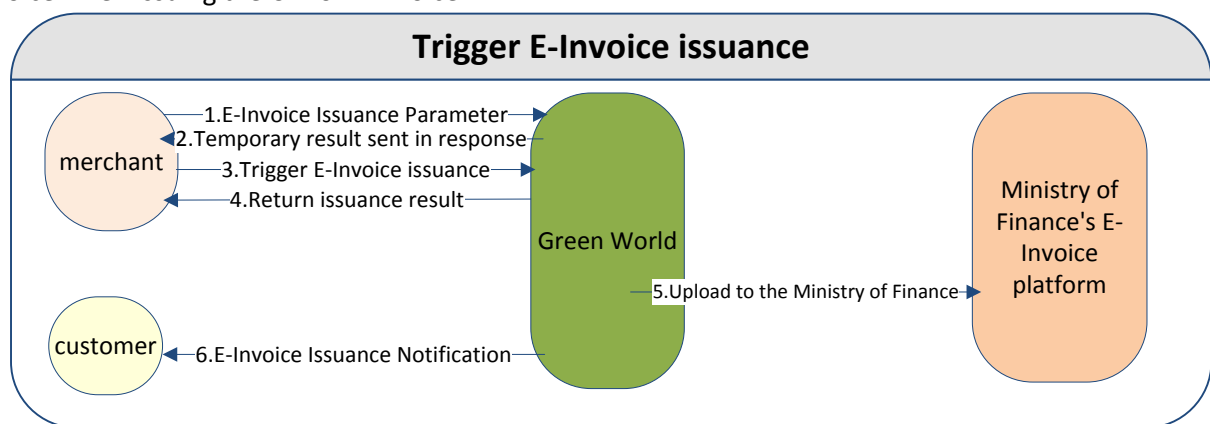
Parameter	Definition	Type	Detail	Example
RtnCode	Response code	Int	1 is success, others are failure.	
RtnMsg	Response	String(200)		E-Invoice issuance complete
OrderNumber	E-Invoice issuance complete	String(30)	If issuance is a success, then the Tsr (Transaction Order) will be sent in response; If the issuance failed then a blank value will be sent in response.	Ecpaytest58649
CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

## (3) Trigger E-Invoice issuance

## ● How to use:

Merchants can use this function to issue the E-Invoice parameter to Green World in advance, where it would be stored by Green World temporarily, awaiting the confirmed time for issuance. The merchant can then trigger the issuance, the E-Invoice data will be stored at Green World prior to trigger, and based on the designated delay issuance day, once the time arrives the system will automatically issue and upload it to the Ministry of Finance and notify the customer the E-Invoice had been issued. (If there is no designated issue time delay, then the E-Invoice shall be issued upon trigger)

**Special note:** Reminder! Based on the Uniform Invoice Usage Method Rule 9 Item 1 Regulation 4, the merchant merchandise and credit card user customer shall note the final 4 codes of the credit card on the invoice when issuing the Uniform Invoice.



(Diagram) Demonstration flowchart for trigger E-Invoice issuance

Role	Action	Description
merchant	1. E-Invoice Issuance Parameter	merchant calls for E-Invoice issuance (2) <a href="#">Temporary storage of issued invoice</a> transmit E-Invoice issuance parameter.
Green World	2. Temporary result sent in response	Receive and analyze the E-Invoice issuance temporary data sent by the merchant. Confirm that the E-Invoice issuance data is correct, then Green World E-Invoice system will produce the temporary merchant E-Invoice data.
merchant	3. Trigger E-Invoice issuance	The merchant calls for E-Invoice issuance (3) <a href="#">Trigger Invoice issuance</a> : transmit E-Invoice issuance parameter.
Green World	4. Return issuance result	Receive and analyze the trigger E-Invoice issuance data from the merchant, confirm that it is correct and reply the merchant the trigger E-Invoice issuance result.
Green World	5. Upload to the Ministry of Finance	If the E-Invoice data did not request delayed issuance, Green World will immediately issue the E-Invoice and upload to the Ministry of Finance's platform. If the E-Invoice data requested a delayed issuance, Green World will use the temporarily stored merchant E-Invoice to issue the E-Invoice when the time arrives and upload it to the Ministry of Finance's E-Invoice platform.
customer	6. E-Invoice Issuance Notification	Once the E-Invoice has been issued, Green World will notify the customer via a message that the E-Invoice has been issued.

## ● Application Example:

## I. Trigger E-Invoice issuance:

The API will be called when the customer completes payment, triggering the E-Invoice issuance parameter stored temporarily at Green World.

## II. Delayed trigger E-Invoice issuance:

The API will be called when the customer completes payment, triggering the E-Invoice issuance parameter store temporarily at Green World, once the appointed issuing time arrives the system will automatically complete the issuance.

**Special note:** Temporary E-Invoice data storage API has to be called prior to using this API, and [delayed notation](#) parameter has to be 2(Trigger issuance).

## ● API URL:

■ Stage: <https://einvoice-stage.ecpay.com.tw/Invoice/TriggerIssue>

■ Production: <https://einvoice.ecpay.com.tw/Invoice/TriggerIssue>

## ● The merchant request parameter (If there is a red asterisk\* before the name then it is required):

Parameter	Definition	Type	Description	Example
*TimeStamp	Time stamp	Int	<p>Green world will use the time of the parameter, transform it into a UnixTimeStamp to verify the time slot of this interface.</p> <p><b>Special note:</b></p> <ol style="list-style-type: none"> <li>The verification time slot is temporary set as effective for 5 minutes; if verification is not completed in time, the order will not be completed.</li> </ol> <p>Reference Information:</p> <p><a href="http://www.epochconverter.com/">http://www.epochconverter.com/</a></p> <ol style="list-style-type: none"> <li>Merchant shall conduct the host "Time calibration" to ensure there is no time discrepancy between host to avoid the API from functioning normally.</li> </ol>	1439451807
*MerchantID	merchant ID	String(10)	<ol style="list-style-type: none"> <li><a href="#">Test environment merchant ID</a></li> <li><a href="#">Obtain a cryptographic key for Production</a></li> </ol>	10000705
*Tsr	Transaction Order	String(30)	<ol style="list-style-type: none"> <li>Used as a basis to call <a href="#">trigger after payment completion or delayed invoice issuance</a>.</li> <li>Must be unique and non-repeated</li> </ol>	123456789
*PayType	Pay type	String(1)	Please fill in '2' automatically in the case of Green World	2
*CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	



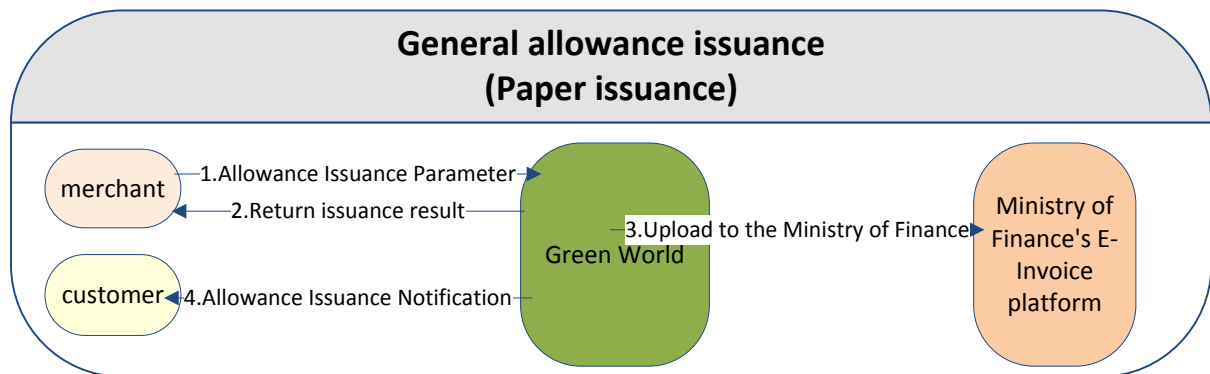
● Green World parameter transmit in response:

Parameter	Definition	Type	Description	Example
RtnCode	Response code	Int	<p>1. When DelayDay is set larger than 0, the RtnCode response result is 4000003 indicates the delay issuance was successful.</p> <p>2. When DelayDay is set to 0, the RtnCode response result is 4000004 indicates the E-Invoice issuance was successful.</p> <p>3. When the RtnCode is no the results above, it indicates failure.</p>	4000004
RtnMsg	Response	String(200)		E-Invoice issuance complete
Tsr	Transaction Order	String(20)	If the issuance is successfully completed, then it will send the transaction order in response, if not successful then a blank value will be sent.	123456789
CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

## 4. Issue Allowance

### (1) General allowance issuance (Paper issuance)

- How to use: The merchant system can use this function to transmit the allowance issuance parameter to Green World, where Green World will temporarily store the E-Invoice data. Green World will send the allowance data to the Ministry of Finance's E-Invoice integrate service platform the next day and notify the customer it has been issued.



(Diagram) Allowance issuance Demonstration flowchart

Role	Action	Description
merchant	1. Allowance Issuance Parameter	The merchant calls for <a href="#">Allowance Issuance</a> parameter transmission.
Green World	2. Return issuance result	Receive and analyze E-Invoice allowance issuance data transmitted by the merchant. Upon confirmation that the allowance issuance data is correct, Green World E-Invoice system will produce the temporary merchant E-Invoice allowance data.
Green World	3. Upload to the Ministry of Finance	Upon issuance completion, Green World will send the allowance data to the Ministry of Finance's E-Invoice platform.
customer	4. Allowance Issuance Notification	Once the allowance has been issued, Green World will notify the customer via a message that the E-Invoice allowance has been issued.

- Application Example:  
If the merchandise quality, specification does not satisfy customer requirements, the merchant agrees to deduct the merchandise price. This API can send the issued allowance parameter to Green World for temporary storage of the allowance E-Invoice data. Green World will send the allowance data to the Ministry of Finance's E-Invoice integrate service platform the next day.
- API URL
  - Stage: <https://einvoice-stage.ecpay.com.tw/Invoice/Allowance>
  - Production: <https://einvoice.ecpay.com.tw/Invoice/Allowance>

- The merchant request parameter (If there is a red asterisk\* before the name then it is required):

Parameter	Definition	Type	Description	Example
*TimeStamp	Time stamp	Int	<p>Green world will use the time of the parameter, transform it into a UnixTimeStamp to verify the time slot of this interface.</p> <p><b>Special note:</b></p> <p>1. The verification time slot is temporary set as effective for 5 minutes; if verification is not completed in time, the order will not be completed.</p> <p>Reference Information :  <a href="http://www.epochconverter.com/">http://www.epochconverter.com/</a></p> <p>2. Merchant shall conduct the host "Time calibration" to ensure there is no time discrepancy between host to avoid the API from functioning normally.</p>	1439451807
*MerchantID	merchant ID	String(10)	<p>1. <a href="#">Test environment merchant ID</a></p> <p>2. <a href="#">Obtain a cryptographic key for Production</a></p>	2000132
*InvoiceNo	E-Invoice number	String(10)	Fix length of 10 characters	XN12345678
*AllowanceNotify	Notification Category	String(1)	<p>Upon allowance has been issued, send the related E-Invoice allowance data to notify the customer</p> <p>S: SMS E: EMAIL A: All methods N: Do not notify</p>	E
CustomerName	Customer name	String(30)	<p>1. When the parameter has value, only characters such as "Chinese or English characters and numbers" are acceptable.</p> <p>2. <b>Please make the parameter value a URL Encode</b>, if non .NET program language is used, then please refer to <a href="#">URL Encode Conversion Table</a> to convert the character.</p>	<p>Green World FinTech Service Co., Ltd.URL  Encode→%e7%b6%a0%e7%95%8c%e7%a7%91%e6%8a%80%e8%82%a1%e4%bb%bd%e6%9c%89%e9%99%90%e5%85%ac%e5%8f%b8</p>
NotifyMail	Notify email address	String(100)	<p>1. If <a href="#">Notification Category</a> [AllowanceNotify] is email address(E), then this parameter shall require value</p> <p>2. Format can only be a standard email address format</p> <p>3. <b>Please make the parameter value a URL Encode</b>, if non .NET program language is used, then please refer to <a href="#">URL Encode Conversion Table</a> to convert the character.</p>	<p><a href="mailto:abc@ecpay.com.tw">abc@ecpay.com.tw</a>  URL  Encode→abc%40ecpay.com.tw</p>
NotifyPhone	Notify cellphone number	String(20)	<p>1. If <a href="#">Notification Category</a> [AllowanceNotify] is SMS method(S), then this parameter shall</p>	0912345678

Parameter	Definition	Type	Description	Example
			require value 2. Format is to be composed of numbers with minimum length of 1 up to maximum length of 20 characters	
*AllowanceAmount	Allowance total amount (Tax included)	Int		100
*ItemName	Item Name	String (100)	1. Preset cannot be an empty string and format shall be Name 1 Name 2  Name 3   ...   Name n. 2. When there are two or more item name, then it will need to be separated by " ". 3. URL Encode shall originate from the parameter value. 4. The parameter shall be exempted when calculating the check digit	Name 1 Name 2  Name 3 URL Encode→ %E5%90%8D%E7%A8%B1%7C%E5%90%8D%E7%A8%B12%7C%E5%90%8D%E7%A8%B13
*ItemCount	Merchandise quantity	String (Max)	1. Preset cannot be an empty string and format shall be Quantity 1 Quantity 2  Quantity 3   ...   Quantity n. 2. When there are two or more item name, then it will need to be separated by " ".	1 2 3
*ItemWord	Merchandise units	String (Max)	1. When there are more than two then please separate them with the " " character 2. Maximum length of 6 characters 3. URL Encode shall originate from the parameter value. 4. The parameter shall be exempted when calculating the check digit	Unit 1 Unit 2 Unit 3 URL Encode→%E5%96%AE%E4%BD%8D1%7C%E5%96%AE%E4%BD%8D2%7C%E5%96%AE%E4%BD%8D3
*ItemPrice	Merchandise price	String (Max)	1. Preset cannot be an empty string and format shall be Price 1 Price 2  Price 3   ...   Price n. 2. When there are two or more merchandise price, then it will need to be separated by " ".	44 55 66
ItemTaxType	Merchandise tax category	String (Max)	1: Should be taxed 2: Tax rate is zero 3: Duty Free <b>Special note:</b> 1. Preset is an empty string, when the tax category [TaxType] = 9, this parameter cannot be null.	1 1 3

Parameter	Definition	Type	Description	Example
			<p>2. This parameter type is for singular item merchandise; For multiple items of merchandise, please separate with the character " ".</p> <p>3. When [TaxType]=9, [ItemTaxType] will need to discern the tax rate of each merchandise, amongst them should be at least 1 item that is 1(To be taxed) and another as 2(Duty Free) or 3(Tax rate is zero). Implying the combined tax rate E-Invoice can only be: 1 3(To be taxed and Duty Free) or 1 2(To be taxed and tax rate is zero).</p>	
*ItemAmount	Merchandise total amount	String (Max)	This is the amount sum with tax included When there are more than two then please separate them with the " " character	100 100 100
*CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

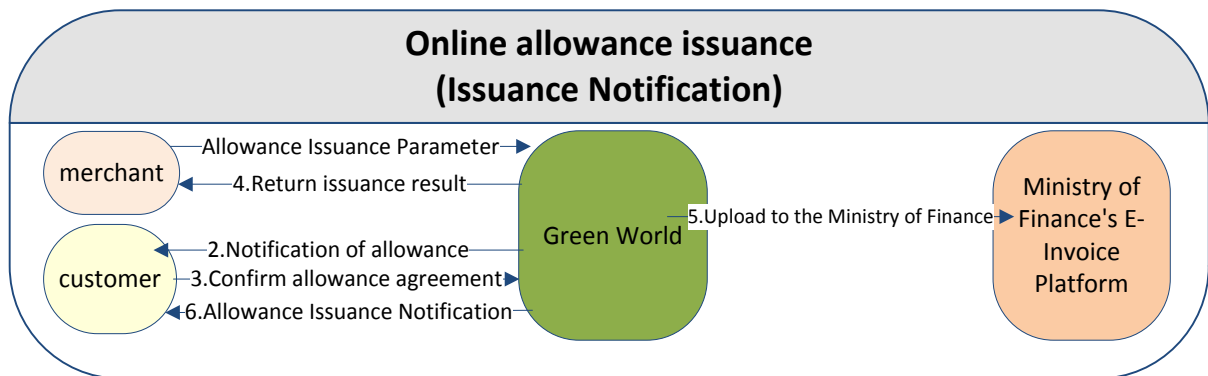
● Green World parameter transmit in response:

Parameter	Definition	Type	Description	Example
RtnCode	Response code	Int	1 is success, others are failure.	1
RtnMsg	Response	String(200)		Allowance Issuance Success
IA_Allow_No	Allowance order number	String(16)	Allowance order number will be returned upon issuance success; If the issuance failed then a blank value will be sent in response.	2016022615195209
IA_Invoice_No	E-Invoice number	String(10)	If the issuance is successfully completed then the original set of E-Invoice number will be sent in return; If the issuance failed then a blank value will be sent in response.	EV00004242
IA_Date	Allowance time	String(20)	Allowance order issuance time will be returned upon issuance success; Return format is "yyyy-MM-dd HH:mm:ss"; If the issuance failed then a blank value will be sent in response.	2016-01-31 10:00:00
IA_Remain_Allowance_Amt	Remaining amount of allowance	Int	Remaining amount of allowance will be returned upon issuance success; If the issuance failed then a blank value will be sent in response.	100
CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

## (2) Online allowance issuance (Issuance Notification)

## ● How to use:

The merchant system can use this function to transmit the allowance issuance parameter to Green World, where Green World will temporarily store the E-Invoice data. The customer will also be notified via mail or message, once the customer agrees to the allowance amount Green World will immediately notify the merchant of the issued allowance order and return the order number. The allowance data will be uploaded to the Ministry of Finance's integrated service platform the next day and the customer will be notified of the completion of issuance.



(Diagram) Allowance issuance Demonstration flowchart

Role	Action	Description
merchant	1. Allowance Issuance Parameter	The merchant calls for <a href="#">Allowance Issuance</a> transmit the E-Invoice allowance issuance parameter.
Green World	2. Notification of allowance agreement	Upon reception of the allowance data, Green World will sent the allowance agreement message to the customer and await the customer's confirmation for issuance.
customer	3. Confirm allowance agreement	Customer selects agree allowance within the message, Green World will issue the E-Invoice allowance order based on the corresponding E-Invoice allowance parameter
Green World	4. Return issuance result	After issuance has been completed, Green World will send the issuance completion in return to the merchant.
Green World	5. Upload to the Ministry of Finance	After issuance has been completed, Green World will send the allowance data to the Ministry of Finance's E-Invoice platform.
customer	6. Allowance Issuance Notification	After issuance has been completed, Green World will notify the customer that the allowance has been issued.

## ● Application Example:

If the merchandise quality, specification does not satisfy customer requirements, the merchant agrees to deduct the merchandise price. This API can send the issued E-Invoice allowance parameter to Green World for temporary data storage. Green World will send the allowance agreement message to the customer for confirmation, Green World will then issue the corresponding E-Invoice allowance, where the order will be uploaded to the Ministry of Finance's integrated service platform the next day.

## ● API URL

■ Stage: <https://einvoice-stage.ecpay.com.tw/Invoice/AllowanceByCollegiate>

■ Production: <https://einvoice.ecpay.com.tw/Invoice/AllowanceByCollegiate>

● The merchant request parameter (If there is a red asterisk\* before the name then it is required):

Parameter	Definition	Type	Description	Example
*TimeStamp	Time stamp	Int	<p>Green world will use the time of the parameter, transform it into a UnixTimeStamp to verify the time slot of this interface.</p> <p><b>Special note:</b></p> <p>1. The verification time slot is temporary set as effective for 5 minutes; if verification is not completed in time, the order will not be completed.</p> <p>Reference Information:  <a href="http://www.epochconverter.com/">http://www.epochconverter.com/</a></p> <p>2. Merchant shall conduct the host "Time calibration" to ensure there is no time discrepancy between host to avoid the API from functioning normally.</p>	1439451807
*MerchantID	Merchant ID	String(10)	<p>1. <a href="#">Test environment merchant ID</a></p> <p>2. <a href="#">Obtain a cryptographic key for Production</a></p>	2000132
*InvoiceNo	E-Invoice number	String(10)	Fix length of 10 characters	XN12345678
*AllowanceNotify	Notification Category	String(1)	<p>Upon allowance has been issued, send the related E-Invoice allowance data to notify the customer</p> <p>S: SMS E: EMAIL A: All methods N: Do not notify</p>	E
CustomerName	Customer name	String(60)	<p>1. When the parameter has value, only characters such as "Chinese or English characters and numbers" are acceptable.</p> <p>2. <b>Please make the parameter value a URL Encode</b>, if non .NET coding language is used then please refer to <a href="#">URL Encode Conversion Table</a> to change the character.</p>	Green World FinTech Service Co., Ltd.URL encoding→%e7%b6%a0%e7%95%8c%e7%a7%91%e6%8a%80%e8%82%a1%e4%bb%bd%e6%9c%89%e9%99%90%e5%85%ac%e5%8f%b8
*NotifyMail	Notify email address	String(100)	<p>1. If <a href="#">Notification Category</a> [AllowanceNotify] is email address(E), then this parameter shall require value</p> <p>2. Format can only be a standard email address format</p> <p>3. <b>Please make the parameter value a URL Encode</b>, if non .NET coding language is used then please refer to <a href="#">URL Encode Conversion Table</a> to change the character.</p>	<a href="mailto:abc@ecpay.com.tw">abc@ecpay.com.tw</a> Encode→abc%40ecpay.com.tw

Parameter	Definition	Type	Description	Example
NotifyPhone	Notify cellphone number	String(20)	1. If <a href="#">Notification Category</a> [AllowanceNotify] is SMS method(S), then this parameter shall require value 2. Format is to be composed of numbers with minimum length of 1 up to maximum length of 20 characters	0912345678
*AllowanceAmount	Allowance total amount (Tax included)	Int		100
*ItemName	Item Name	String (100)	1. Preset cannot be an empty string and format shall be Name 1 Name 2  Name 3   ...   Name n. 2. When there are two or more item name, then it will need to be separated by " ". 3. <b>URL Encode shall originate from the parameter value.</b> 4. <b>The parameter shall be exempted when calculating the check digit</b>	Name 1 Name 2  Name 3 URL encoding→ %E5%90%8D%E7%A8%B1%7C%E5%90%8D%E7%A8%B1%7C%E5%90%8D%E7%A8%B13
*ItemCount	Merchandise quantity	String (Max)	1. Preset cannot be an empty string and format shall be: Quantity 1   Quantity 2   Quantity 3   ...   Quantity n. 2. When there are two or more item name, then it will need to be separated by " ".	1 2 3
*ItemWord	Merchandise units	String (Max)	1. When there are more than two then please separate them with the " " character 2. Maximum length of 6 characters 3. <b>URL Encode shall originate from the parameter value.</b> 4. <b>The parameter shall be exempted when calculating the check digit</b>	Unit 1 Unit 2 Unit 3 URL encoding→%E5%96%AE%E4%BD%8D1%7C%E5%96%AE%E4%BD%8D2%7C%E5%96%AE%E4%BD%8D3
*ItemPrice	Merchandise price	String (Max)	1. Preset cannot be an empty string and format shall be Price 1 Price 2  Price 3   ...   Price n. 2. When there are two or more merchandise price, then it will need to be separated by " ".	44 55 66
ItemTaxType	Merchandise tax category	String (Max)	1: Should be taxed 2: Tax rate is zero 3: Duty Free <b>Special note:</b> 1. Preset is an empty string, when the tax category [TaxType] = 9, this parameter cannot	1 1 3



Parameter	Definition	Type	Description	Example
			<p>be null.</p> <p>2.This parameter type is for singular item merchandise; For multiple items of merchandise, please separate with the character " ".</p> <p>3. When [TaxType]=9, [ItemTaxType] will need to discern the tax rate of each merchandise, amongst them should be at least 1 item that is 1(To be taxed) and another as 2(Duty Free) or 3(Tax rate is zero). Implying the combined tax rate E-Invoice can only be: 1 3(To be taxed and Duty Free) or 1 2(To be taxed and tax rate is zero).</p>	
*ItemAmount	Merchandise total amount	String (Max)	<p>This is the amount sum with tax included</p> <p>When there are more than two then please separate them with the " " character</p>	100 100 100
ReturnURL	Return website once customer agrees	String(200)	<p>When the customer selects agree, Green World will send the successful result parameter via Server POST to that website.</p> <p><b>Special note:</b></p> <p>Once the server end notifies allowance success, please provide the response 1 OK to Green World.</p>	
*CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

● Green World parameter transmit in response:

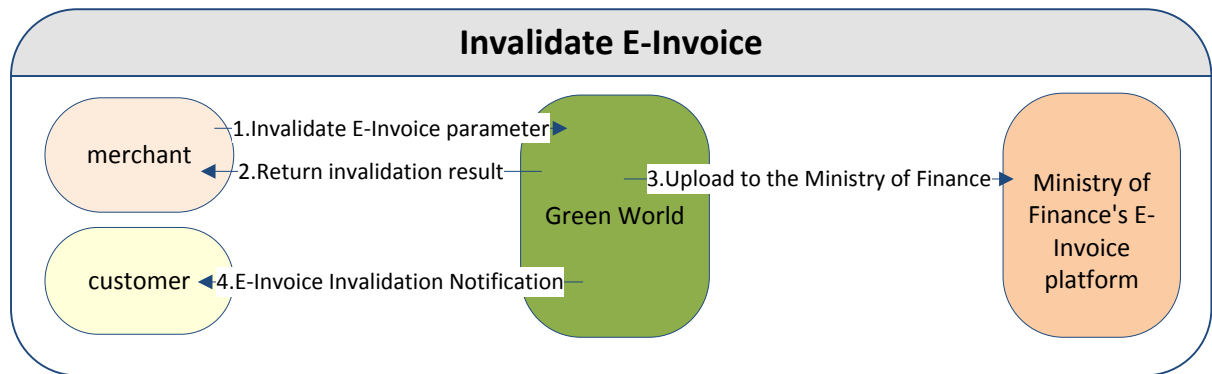
Parameter	Definition	Type	Description	Example
RtnCode	Response code	Int	1 is success, others are failure. <b>Special note:</b> Success indicates API call success. Allowance order can only be completed after customer agrees.	1
RtnMsg	Response	String(200)		Success
IA_Allow_No	Allowance order number	String(16)	Allowance order number will be returned upon issuance success; If the issuance failed then a blank value will be sent in response.	2016022615195209
IA_Invoice_No	E-Invoice number	String(10)	If the issuance is successfully completed then the original set of E-Invoice number will be sent in return; If the issuance failed then a blank value will be sent in response.	EV00004242
IA_TempDate	Online allowance time	String(20)	Online allowance order issuance time will be returned upon issuance success; "yyyy-MM-dd HH:mm:ss"; If the issuance failed then a blank value will be sent in response.	2018-07-31 10:00:00
IA_TempExpireDate	Online allowance agreement deadline	String(20)	Online allowance order issuance termination date will be returned upon issuance success; "yyyy-MM-dd HH:mm:ss"; If the issuance failed then a blank value will be sent in response.	2016-08-03 10:00:00
IA_Remain_Allowance_Amt	Remaining amount of allowance	int	Remaining amount of allowance will be returned upon issuance success; If the issuance failed then a blank value will be sent in response.	100
CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

● Return URL Green World parameter in return:

Parameter	Definition	Type	Description	Example
RtnCode	Response code	Int	1 is success, others are failure.	1
RtnMsg	Response	String(200)		Allowance Issuance Success
IA_Allow_No	Allowance order number	String(16)	Allowance order number will be returned upon issuance success; If the issuance failed then a blank value will be sent in response.	2016022615195209
IA_Invoice_No	E-Invoice number	String(10)	If the issuance is successfully completed then the original set of E-Invoice number will be sent in return; If the issuance failed then a blank value will be sent in response.	EV00004242
IA_Date	Allowance time	String(20)	Allowance order issuance time will be returned upon issuance success; Return format is "yyyy-MM-dd HH:mm:ss"; If the issuance failed then a blank value will be sent in response.	2016-01-31 10:00:00
IA_Remain_Allowance_Amt	Remaining amount of allowance	Int	Remaining amount of allowance will be returned upon issuance success; If the issuance failed then a blank value will be sent in response.	100
CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

## 5. Invalidate E-Invoice

- How to use: The merchant system can use this function to transmit the invalidated E-Invoice parameter to Green World, where Green World will temporarily store the E-Invoice data. Green World will send the invalidation data to the Ministry of Finance's E-Invoice integrate service platform the next day and notify the customer it has been invalidated.



(Diagram) E-Invoice Invalidation Demonstration flowchart

Role	Action	Description
merchant	1. Invalidate E-Invoice parameter	The merchant calls for <a href="#">Invalidate Invoice</a> transmit the invalidate E-Invoice parameter.
Green World	2. Return invalidation result	Receive and analyze E-Invoice invalidation data transmitted by the merchant. Upon confirmation that the E-Invoice invalidation data is correct, Green World E-Invoice system will produce the temporary merchant E-Invoice invalidation data.
Green World	3. Upload to the Ministry of Finance	Upon invalidation completion, Green World will send the corresponding E-Invoice data to the Ministry of Finance's E-Invoice platform.
customer	4. E-Invoice Invalidation Notification	Once the E-Invoice has been invalidated, Green World will notify the customer via a message that the E-Invoice has been invalidate.

- Application Example:  
If the merchandise quality, specification does not satisfy customer requirements, the merchant agrees to refund and or a mistake in issued E-Invoice and etc., this API can be used to invalidate the corresponding E-Invoice. The invalidated E-Invoice parameter will be sent Green World for temporary storage. Green World will send the invalidated data to the Ministry of Finance's E-Invoice integrated service platform the next day.
- API URL:
  - Stage: <https://einvoice-stage.ecpay.com.tw/Invoice/IssueInvalid>
  - Production: <https://einvoice.ecpay.com.tw/Invoice/IssueInvalid>

- The merchant request parameter (If there is a red asterisk\* before the name then it is required):

Parameter	Definition	Type	Description	Example
*TimeStamp	Time stamp	Int	Green world will use the time of the parameter, transform it into a UnixTimeStamp to verify the time slot of this interface. <b>Special note:</b> 1. The verification time slot is temporary set as effective for 5 minutes; if verification is not completed in time, the order will not be completed. Reference Information: <a href="http://www.epochconverter.com/">http://www.epochconverter.com/</a> ° 2. Merchant shall conduct the host "Time calibration" to ensure there is no time discrepancy between host to avoid the API from functioning normally.	1439451807
*MerchantID	merchant ID	String(10)	1. <a href="#">Test environment merchant ID</a> 2. <a href="#">Obtain a cryptographic key for Production</a>	2000132
*InvoiceNumber	E-Invoice number	String(10)	Fix length of 10 characters	XN12345678
*Reason	Invalidation Reason	String(20)	1. URL Encode shall originate from the parameter value. 2. The parameter shall be exempted when calculating the check digit	Merchandise defect URL Encode→%E5%95%86%E5%93%81%E7%91%95%E7%96%B5
*CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

- Green World parameter transmit in response:

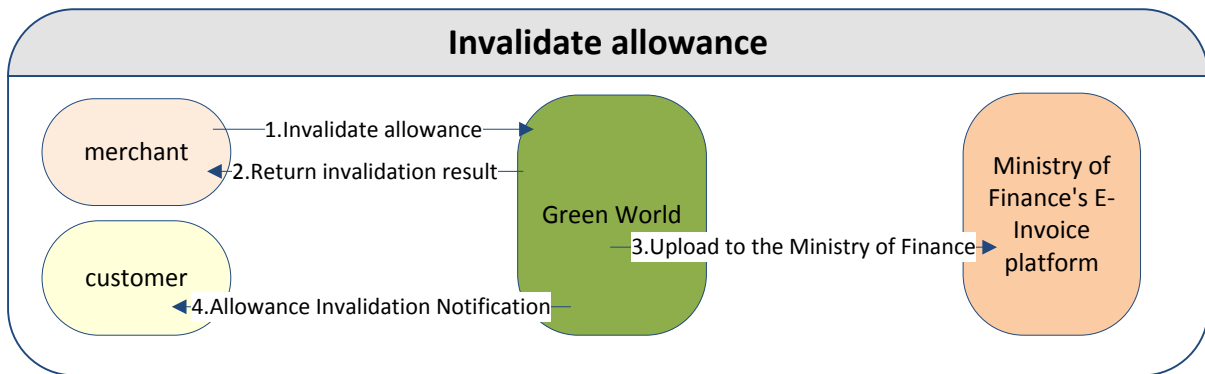
Parameter	Definition	Type	Description	Example
RtnCode	Response code	Int	1 is success, others are failure.	1
RtnMsg	Response	String(200)		E-Invoice Invalidation Success
InvoiceNumber	E-Invoice number	String(10)	If the invalidation is completed, then it will send the E-Invoice number in response, if not successful then a blank value will be sent.	XN12345678
CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

※Special note:

- (1) If the E-Invoice has received allowance, then it cannot be invalidated directly, please confirm whether the allowance orders have been invalidated first.
- (2) The 15th of each odd month (Including the very day), it has been reported to the Ministry of Finance, so E-Invoices from two months ago cannot be invalidated. For example on March 15th, the E-Invoices from January and February cannot be invalidated.

## 6. Invalidate allowance

- How to use: The merchant system can use this function to transmit the allowance invalidation parameter to Green World, where Green World will temporarily store the corresponding data. Green World will send the allowance invalidation data to the Ministry of Finance's E-Invoice integrated service platform the next day and notify the customer it has been issued.



(Diagram) Allowance Invalidation Demonstration flowchart

Role	Action	Description
merchant	1. Invalidate allowance parameter	The merchant calls for <a href="#">Invalidate Allowance</a> transmit the invalidate allowance parameter.
Green World	2. Return invalidation result	Receive and analyze E-Invoice allowance invalidation data transmitted by the merchant. Upon confirmation that the allowance invalidation data is correct, Green World E-Invoice system will produce the temporary merchant E-Invoice allowance invalidation data.
Green World	3. Upload to the Ministry of Finance	Upon invalidation completion, Green World will send the corresponding invalidation data to the Ministry of Finance's E-Invoice platform.
customer	4. Allowance Invalidation Notification	Once the allowance has been invalidated, Green World will notify the customer via a message that the E-Invoice allowance has been invalidate.

- Application Example:**  
If after the merchant issues an allowance, wishes to cancel the allowance or if the allowance was mistaken and or others, this API can be used to invalidate part of the issued allowance (Not the whole E-Invoice!). The invalidated allowance E-Invoice parameter will be sent Green World for temporary storage. Green World will send the invalidated allowances data to the Ministry of Finance's E-Invoice integrated service platform the next day.
- API URL:**
  - Stage: <https://einvoice-stage.ecpay.com.tw/Invoice/AllowanceInvalid>
  - Production: <https://einvoice.ecpay.com.tw/Invoice/AllowanceInvalid>

- The merchant request parameter (If there is a red asterisk\* before the name then it is required):

Parameter	Definition	Type	Description	Example
*TimeStamp	Time stamp	Int	Green world will use the time of the parameter, transform it into a UnixTimeStamp to verify the time slot of this interface. <b>Special note:</b> 1. The verification time slot is temporary set as effective for 5 minutes; if verification is not completed in time, the order will not be completed. Reference Information : <a href="http://www.epochconverter.com/">http://www.epochconverter.com/</a> 2. Merchant shall conduct the host "Time calibration" to ensure there is no time discrepancy between host to avoid the API from functioning normally.	1439451807
*MerchantID	merchant ID	String(10)	1. <a href="#">Test environment merchant ID</a> 2. <a href="#">Obtain a cryptographic key for Production</a>	2000132
*InvoiceNo	E-Invoice number	String(10)	Fix length of 10 characters	XN12345678
*AllowanceNo	Allowance Code	String(16)	Fix length of 16 characters	
*Reason	Invalidation Reason	String(20)	1. <b>URL Encode shall originate from the parameter value.</b> 2. <b>The parameter shall be exempted when calculating the check digit</b>	Merchandise defect URL Encode→%E5%95%86%E5%93%81%E7%91%95%E7%96%B5
*CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

- Green World parameter transmit in response:

Parameter	Definition	Type	Description	Example
RtnCode	Response code	Int	1 is success, others are failure.	1
RtnMsg	Response	String(200)		Allowance Invalidation Success
IA_Invoice_No	E-Invoice number	String(10)	If the invalidation is successful then a set of E-Invoice number will be sent in response; If the issuance failed then a blank value will be sent in response.	XN12345678
CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

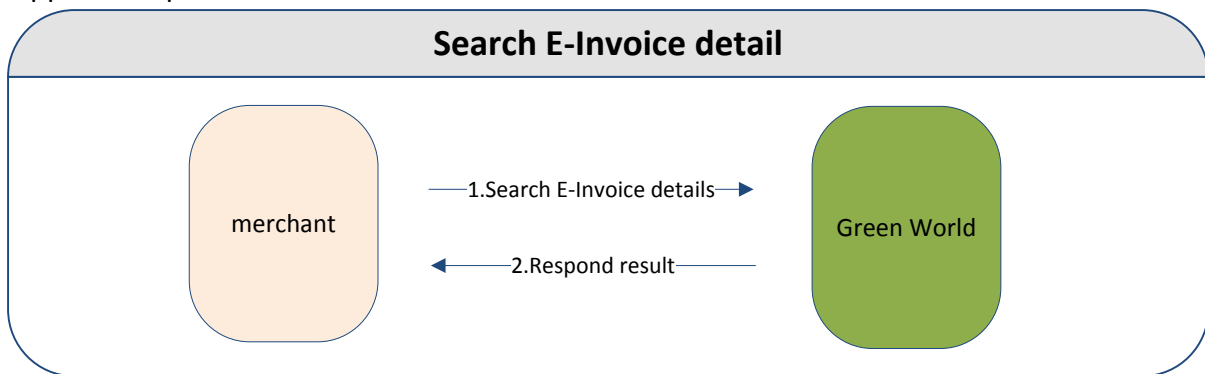
#### ※Special note:

- (1) After 23:59:59 of the 13th of each odd month, because it has been reported to the Ministry of Finance, E-Invoice allowances issued two months prior cannot be invalidated. For example on March 14th, the E-Invoices from January and February cannot be invalidated.

## 7. Search E-Invoice detail

- **Application Example:**  
Merchants can use this API to search for information on issued E-Invoice, Green World will reply the E-Invoice's data in the form of return parameters. This method can assist merchant in integrating the search E-Invoice mechanism to their website, providing customers the function to easily query in the merchant's website.  
(**Special note:** There is IP restriction access, please go the "Merchant back end->General Information Query->Merchant General Information" to set IP)

- **Application process:**



(Diagram) E-Invoice detail search Demonstration flowchart

- **API URL:**
  - Stage: <https://invoice-stage.ecpay.com.tw/Query/Issue>
  - Production: <https://invoice.ecpay.com.tw/Query/Issue>
- **The merchant request parameter (If there is a red asterisk\* before the name then it is required):**

Parameter	Definition	Type	Description	Example
*TimeStamp	Time stamp	Int	<p>Green world will use the time of the parameter, transform it into a UnixTimeStamp to verify the time slot of this interface.</p> <p><b>Special note:</b></p> <ol style="list-style-type: none"> <li>The verification time slot is temporary set as effective for 5 minutes; if verification is not completed in time, the order will not be completed.</li> </ol> <p>Reference Information:  <a href="http://www.epochconverter.com/">http://www.epochconverter.com/</a></p> <ol style="list-style-type: none"> <li>Merchant shall conduct the host "Time calibration" to ensure there is no time discrepancy between host to avoid the API from functioning normally.</li> </ol>	1439451807
*MerchantID	merchant ID	String(10)	<ol style="list-style-type: none"> <li><a href="#">Test environment merchant ID</a></li> <li><a href="#">Obtain a cryptographic key for Production</a></li> </ol>	2000132
*RelateNumber	merchantCustom Code	String(30)	Fix length of 30 characters	XN12345678
*CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	



● Green World parameter transmit in response:

Parameter	Definition	Type	Description	Example
RtnCode	Response code	Int	1 is success, others are failure.	1
RtnMsg	Response	String(200)		Query success
IIS_Mer_ID	merchant ID	String(10)		2000132
IIS_Number	E-Invoice number	String(10)		XN12345678
IIS_Relate_Number	Merchant custom code	String(30)	Fix length of 30 characters	123456789
IIS_Customer_ID	Customer code	String (20)		
IIS_Identifier	Buyer Government Uniform Invoice number	String(8)	0000000000 implies that there is no Government Uniform Invoice number	53538851
IIS_Customer_Name	Customer name	String(30)	Will be output in the form of URL Encode coding	Green World FinTech Service Co., Ltd. URL Encode→%e7%b6% a0%e7%95%8c%e7 %a7%91%e6%8a%8 0%e8%82%a1%e4% bb%bd%e6%9c%89 %e9%99%90%e5%8 5%ac%e5%8f%b8
IIS_Customer_Addr	Customer address	String(100)	Will be output in the form of URL Encode coding	Taipei City, Nangang Dist., Sanchong Rd., No.19-2, 6F.-2 (Building D) URL Encode→%e8%87% ba%e5%8c%97%e5 %b8%82%e5%8d%9 7%e6%b8%af%e5% 8d%80%e4%b8%89 %e9%87%8d%e8%b 7%af19-2%e8%99% 9f56%e6%a8%93-2+ (D%e6%a3%9f)
IIS_Customer_Phone	Customer Phone Number	String(20)		0912345678
IIS_Customer_Email	Customer E-mail	String(80)		<a href="mailto:abc@ecpay.com.tw">abc@ecpay.com.tw</a>
IIS_Clearance_Mark	Clearance Method	String(1)	1: Export not via custom 2: Export via custom	2
IIS_Type	Invoice category	String(2)	07: General tax amount calculation 08: Special tax amount calculation	07
IIS_Category	Invoice Category	String(10)	B2B: With Government Uniform Invoice number B2C: Without Government Uniform Invoice number	B2C
IIS_Tax_Type	Tax category	String(Max)	1: Should be taxed 2: Tax rate is zero 3: Duty Free	3

Parameter	Definition	Type	Description	Example
			9: If it is combined tax rate, zero tax or duty free	
IIS_Tax_Rate	Tax rate	Int		
IIS_Tax_Amount	Tax	Int	When the E-Invoice is B2B, then there will be tax When the E-Invoice is B2C, the tax is included within the E-Invoice amount, not separated	
IIS_Sales_Amount	E-Invoice amount	Int		100
IIS_Check_Number	E-Invoice check digit	String(4)		
IIS_Carruer_Type	carrier type	String(1)	1: A Green World E-Invoice carrier 2: Is customer's citizen digital certificate 3: Is customer's cellphone number ✕If no carrier, then it is a blank value.	
IIS_Carruer_Num	Carrier code	String (64)	1. If no carrier, then it is blank value 2. If it is a Green World E-Invoice carrier, then it is the merchant's carrier Government Uniform Invoice number + custom code (RelateNumber) 3. If customer's carrier is their <u>citizen digital certificate</u> , the format should be two 2 alphabet character in addition to 14 numerical digits (Total length of 16 unites) 4. If customer's carrier is their cellphone number, then its total length should be 8 units, sequence format of 1 code slash "/" followed by a sequence of 7 numerical digits, cap-sized alphabets and +-. symbols.	/ABCDEF
IIS_Love_Code	Donation party Donation code	String (7)	Ministry of Finance -Search for donated organization or group's donation code <a href="https://www.einvoice.nat.gov.tw/APMEMBERVAN/XcaOrgPreserveCodeQuery/XcaOrgPreserveCodeQuery">https://www.einvoice.nat.gov.tw/APMEMBERVAN/XcaOrgPreserveCodeQuery/XcaOrgPreserveCodeQuery</a>	
IIS_IP	E-Invoice Issuance IP	String (20)		
IIS_Create_Date	E-Invoice issuance time	String (20)	Format is "yyyy-MM-dd HH:mm:ss"	2016-01-10 15:30:00
IIS_Issue_Status	E-Invoice Issuance status	String (1)	1: E-Invoice Issued 0: E-Invoice invalidated	1
IIS_Invalid_Status	E-Invoice invalidation status	String (1)	1: Have been invalidated 0: Not yet invalidated	0
IIS_Upload_Status	E-Invoice upload status	String (1)	1: Upload complete 0: Not yet uploaded	1
IIS_Upload_Date	E-Invoice upload time	String (20)	Format is "yyyy-MM-dd HH:mm:ss"	2016-01-11 09:30:00
IIS_Turnkey_Status	Reception status after E-Invoice	String (1)	C: Success E: Failure G: Under processing (awaiting Ministry of	C

Parameter	Definition	Type	Description	Example
	uploaded		Finance's response) P: Under processing (uploading to Ministry of Finance)	
IIS_Remain_Amount_Amt	Remaining amount of allowance	Int		100
IIS_Print_Flag	Print flag	String (1)	1: Print 0: Do not print	0
IIS_Award_Flag	Winning flag	String (1)	Blank value: Did not check, cannot check (Such as: Donated E-Invoice) 0: Did not win 1: Won X: E-Invoice with Government Uniform Invoice number	
IIS_Award_Type	Win Type	String (2)	10: Cloud E-Invoice Prize NTD 1 million 9: Cloud E-Invoice Prize NTD 2000 8: Bonus Prize NTD 10 million 7: Special Prize NTD 2 million 1: 1st Prize NTD 200000 2: 2nd Prize NTD 40000 3: 3rd Prize NTD 10000 4: 4th Prize NTD 4000 5: 5th Prize NTD 1000 6: 6th Prize NTD 200 0: Did not win	
ItemName	Item Name	String (100)	1. When there are more than two then please separate them with the " " character 2. The parameter shall be exempted when calculating the check digit 3. Will be output in the form of URL Encode coding	Name 1 Name 2 Name 3 URL Encode→ %E5%95%86%E5%93%81%E5%90%8D%E7%A8%B11%7C%E5%95%86%E5%93%81%E5%90%8D%E7%A8%B12%7C%E5%95%86%E5%93%81%E5%90%8D%E7%A8%B13
ItemCount	Merchandise quantity	String (Max)	When there are more than two then please separate them with the " " character	1 2 3
ItemWord	Merchandise units	String (Max)	1. When there are more than two then please separate them with the " " character 2. The parameter shall be exempted when calculating the check digit 3. Will be output in the form of URL Encode coding	Unit 1 Unit 2 Unit 3 URL Encode→ %E5%96%AE%E4%BD%8D1%7C%E5%96%AE%E4%BD%8D2%7C%E5%96%AE%E4%BD%8D3
ItemPrice	Merchandise price	String (Max)	This is the unit price with included tax, if there are more than two then please separate with the " " character	44 55 66
ItemTaxType	Merchandise tax category	String (Max)	1: Should be taxed 2: Tax rate is zero 3: Duty Free <b>Special note:</b> 1. Preset is an empty string, when the tax	1

Parameter	Definition	Type	Description	Example
			<p>category [TaxType] = 9, this parameter cannot be null.</p> <p>2. This parameter type is for singular item merchandise; For multiple items of merchandise, please separate with the character " ".</p> <p>3. When [TaxType]=9, [ItemTaxType] will need to discern the tax rate of each merchandise, amongst them should be at least 1 item that is 1(To be taxed) and another as 2(Duty Free) or 3(Tax rate is zero). Implying the combined tax rate E-Invoice can only be: 1 3(To be taxed and Duty Free) or 1 2(To be taxed and tax rate is zero).</p>	
ItemAmount	Merchandise total amount	String (Max)	This is the subtotal with included tax, if there are more than two then please separate with the " " character	100 100 100
ItemRemark	Merchandise notation explanation	String (Max)	<p>1. If the parameter is not brought along or does not have value, the preset is blank</p> <p>2. When there are more than two merchandise notation then please separate them with the " " character.</p> <p>3. The parameter shall be exempted when calculating the check digit</p> <p>4. Will be output in the form of URL Encode coding</p>	Note field 1 Note field 2 Note field 3 URL Encode→ %e5%82%99%e8%a8%bb1%7c%e5%82%99%e8%a8%bb2%7c%e5%82%99%e8%a8%bb3
IIS_Random_Number	Random code	String(4)	4 code random number (Since 2014-01-01)	
InvoiceRemark	E-Invoice Notation	String(Max)	<p>1. The parameter shall be exempted when calculating the check digit</p> <p>2. Will be output in the form of URL Encode coding</p>	Note field URL Encode→ %E5%82%99%E8%A8%BB
PosBarCode	Display for E-Invoice BARCODE use	String(Max)	<p>1. Used to display E-Invoice BARCODE. (This return parameter is only used for POS vendor use only).</p> <p>2. If POS vendors want to develop their own E-Invoice template, please provide application to Green World.</p> <p>3. The parameter shall be exempted when calculating the check digit</p>	10602RH749557567117
QRCode_Left	Display E-InvoiceQR CODE for left	String(Max)	1. Used to display E-InvoiceQR CODE for the left side, has to designate pass code seed at	RH74955756106020871170000000a0000000a00000000535

Parameter	Definition	Type	Description	Example
	side use		<p>Green World to assist in return code compression. (This return parameter is only used for POS vendor use only).</p> <p>2. If POS vendors want to develop their own E-Invoice template, please provide application to Green World.</p> <p>3. <b>The parameter shall be exempted when calculating the check digit</b></p>	38851Lx1BmOzTCw wLnrECQGY6ow==:* *****:1:1:1:
QRCode_Right	Display E-InvoiceQR CODE for right side use	String(Max)	<p>1. Used to display E-InvoiceQR CODE for the right side, has to designate pass code seed at Green World to assist in return code compression. (This return parameter is only used for POS vendor use only).</p> <p>2. If POS vendors want to develop their own E-Invoice template, please provide application to Green World.</p> <p>3. <b>The parameter shall be exempted when calculating the check digit</b></p> <p><b>Special note:</b> To avoid the QR code from being too complex and unrecognizable, the QR code will display on the first 2 items, for the complete list please refer to the content uploaded to the Ministry of Finance</p>	**Hub+Multi-functi on fast charge cable collector(Four colors):10:1
CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

## E-invoice QR CODE

## Demonstration Diagram Explanation



**This is an example of paper E-Invoice certificate.**

**The following is data in left QR Code.**

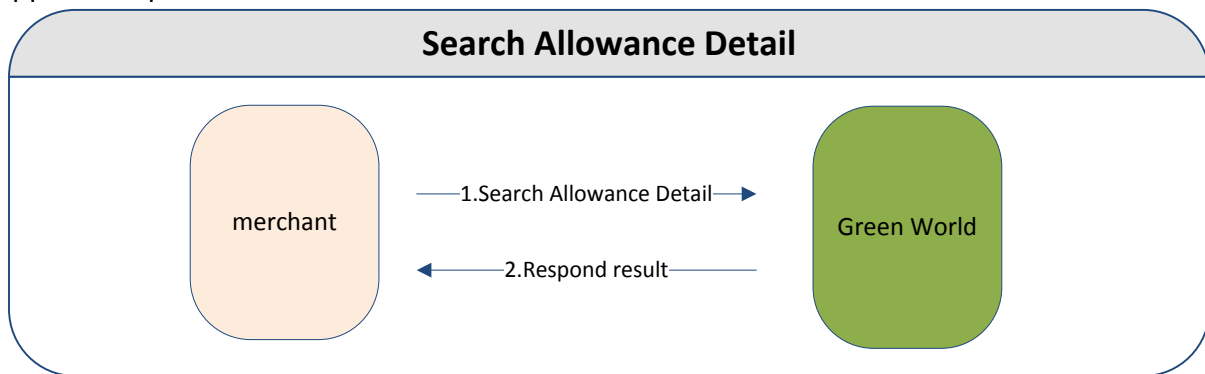
1. E-Invoice's word track AB-11223344.
2. E-Invoice issuance date 1020523.
3. Random number 9999.
4. Sales amount 000004a6.  
0000000000 implies that the buyer/customer has no Government Uniform Invoice number.
5. Total sales amount 000004e2.
6. Buyer's/Customer's Uniform Invoice number 31697511.
7. Merchant's Uniform Invoice number 12345678.

**The following is data in right QR Code.**

1. The beginning 2 code of right QR Code is \*\*.
  2. Data (products' name, quantity, price of item...etc.) in the E-invoice is separated by ":".
- To avoid the data in the QR Code is too complex to identify, the E-invoice includes only 2 products' data. The complete data should be based on that on Ministry of

## 8. Search Allowance Detail

- **Application Example:**  
Merchants can use this API to search the E-Invoice detail with allowance issued, but does not include on-line allowance agreement orders that the customer has not agreed.  
(**Special note:** There is IP restriction access, please go the "Merchant back end->General Information Query->Merchant General Information" to set IP)
- **Application process:**



(Diagram) Allowance detail search Demonstration flowchart

- **API URL:**
  - Stage: <https://einvoice-stage.ecpay.com.tw/Query/Allowance>
  - Production: <https://einvoice.ecpay.com.tw/Query/Allowance>
- The merchant request parameter (If there is a red asterisk\* before the name then it is required):

Parameter	Definition	Type	Description	Example
*TimeStamp	Time stamp	Int	<p>Green world will use the time of the parameter, transform it into a UnixTimeStamp to verify the time slot of this interface.</p> <p><b>Special note:</b></p> <ol style="list-style-type: none"> <li>The verification time slot is temporary set as effective for 5 minutes; if verification is not completed in time, the order will not be completed.</li> </ol> <p>Reference Information:  <a href="http://www.epochconverter.com/">http://www.epochconverter.com/</a>.</p> <ol style="list-style-type: none"> <li>Merchant shall conduct the host "Time calibration" to ensure there is no time discrepancy between host to avoid the API from functioning normally.</li> </ol>	1439451807
*MerchantID	Merchant ID	String(10)	<ol style="list-style-type: none"> <li><a href="#">Test environment merchant ID</a></li> <li><a href="#">Obtain a cryptographic key for Production</a></li> </ol>	2000132
*InvoiceNo	Invoice number	String(10)	Fix length of 10 characters	XN12345678
*AllowanceNo	Allowance Code	String(16)	Fix length of 16 characters	Ecpay0123456789
*CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

● Green World parameter transmit in response:

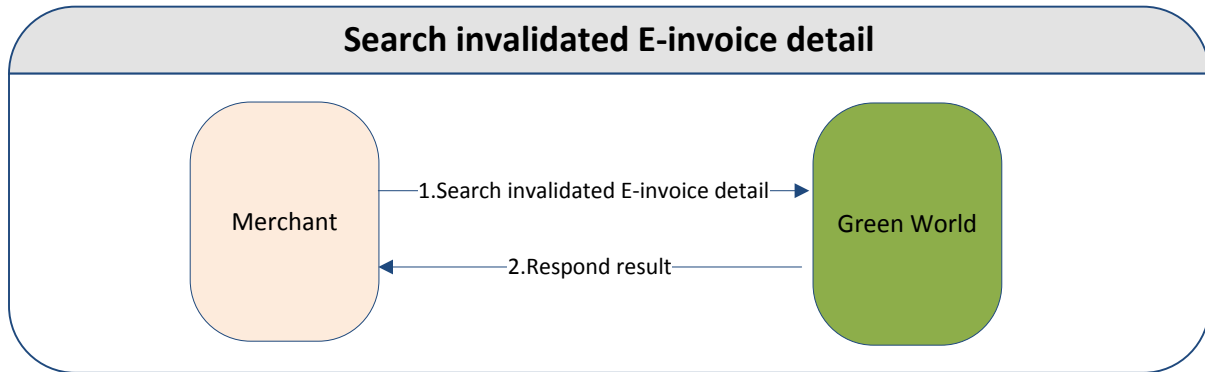
Parameter	Definition	Type	Description	Example
RtnCode	Response code	Int	1 is success, others are failure.	1
RtnMsg	Response	String(200)		Query success
IA_Allow_No	Allowance order number	String(16)	Fix length of 16 characters	Ecpay0123456789
IA_Check_Send_Mail	Allowance Notification	String(1)	S: SMS E: EMAIL A: All methods N: Do not notify	N
IA_Date	Allowance time	String(20)	Format is "yyyy-MM-dd HH:mm:ss"	2016-01-31 10:00:00
ItemName	Item Name	String (100)	1. When there are more than two item name then please separate them with the " " character. 2. Will be output in the form of URL Encode coding 3. The parameter shall be exempted when calculating the check digit	Name 1 Name 2 Name 3 URLEncode→%E5%90%8D%E7%A8%B11%7C%E5%90%8D%E7%A8%B12%7C%E5%90%8D%E7%A8%B13
ItemCount	Merchandise quantity	String (Max)	When there are more than two then please separate them with the " " character	1 2 3
ItemWord	Merchandise units	String (Max)	1. When there are more than two then please separate them with the " " character 2. Will be output in the form of URL Encode coding 3. The parameter shall be exempted when calculating the check digit	Unit 1 Unit 2 Unit 3 URLEncode→%E5%96%AE%E4%BD%8D1%7C%E5%96%AE%E4%BD%8D2%7C%E5%96%AE%E4%BD%8D3
ItemPrice	Merchandise price	String (Max)	This is the unit price with included tax, if there are more than two then please separate with the " " character	44 55 66
ItemRateAmt	Merchandise Sales Tax amount	String (Max)	When there are more than two then please separate them with the " " character	Tax amount 1 Tax amount 2
ItemTaxType	Merchandise tax category	String (Max)	1: Should be taxed 2: Tax rate is zero 3: Duty Free <b>Special note:</b> 1. Preset is an empty string, when the tax category [TaxType] = 9, this parameter cannot be null. 2. This parameter type is for singular item merchandise; For multiple items of merchandise, please separate with the character " ". 3. When [TaxType]=9, [ItemTaxType] will need to	1 1 3



Parameter	Definition	Type	Description	Example
			discern the tax rate of each merchandise, amongst them should be at least 1 item that is 1(To be taxed) and another as 2(Duty Free) or 3(Tax rate is zero). Implying the combined tax rate E-Invoice can only be: 1 3(To be taxed and Duty Free) or 1 2(To be taxed and tax rate is zero).	
ItemAmount	Merchandise total amount	String(Max)	This is the subtotal with included tax, if there are more than two then please separate with the " " character	100 100 100
IA_IP	Allowance IP	String(20)		
IA_Identifier	Customer's Government Uniform Invoice number	String(10)	0000000000 implies that there is no Government Uniform Invoice number	
IA_Invalid_Status	Allowance invalidation status	String(1)	1: Allowance order have been invalidated 0: Allowance order not yet invalidated	0
IA_Invoice_Issue_Date	E-Invoice issuance time	String(20)	Format is "yyyy-MM-dd HH:mm:ss"	2016-01-10 10:30:00
IA_Invoice_No	E-Invoice number	String(10)	Fix length of 10 characters	XN12345678
IA_Mer_ID	Merchant Code	String(10)		2000132
IA_Send_Mail	Notify Mail	String(100)	Email in which notification is sent to	
IA_Send_Phone	Notify cellphone number	String(100)	Cellphone number in which notification is sent to	
IA_Tax_Amount	Total Sales Tax amount	Int		
IA_Tax_Type	Tax category	String(1)	1: Should be taxed 2: Tax rate is zero 3: Duty Free	1
IA_Total_Amount	Total amount (Not including tax)	Int		100
IA_Total_Tax_Amount	E-Invoice total amount (Tax included)	Int		108
IA_Upload_Date	Upload time	String(20)	Format is "yyyy-MM-dd HH:mm:ss"	2016-01-11 14:30:00
IA_Upload_Status	Allowance upload status	String(1)	1: Upload complete 0: Not yet uploaded	1
IIS_Customer_Name	Customer's name	String(30)	Will be output in the form of URL Encode coding	
CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

## 9. Search Invalidated E-Invoice detail

- Application Example:  
Merchant can use this API to search for detail of invalidated E-Invoice  
(**Special note:** There is IP restriction access, please go the "Merchant back end->General Information Query->Merchant General Information" to set IP)
- Application process:



(Diagram) Invalidated E-Invoice detail search demonstration flowchart

- API URL:
  - Stage: <https://einvoice-stage.ecpay.com.tw/Query/IssueInvalid>
  - Production: <https://einvoice.ecpay.com.tw/Query/IssueInvalid>
- The merchant request parameter (If there is a red asterisk\* before the name then it is required):

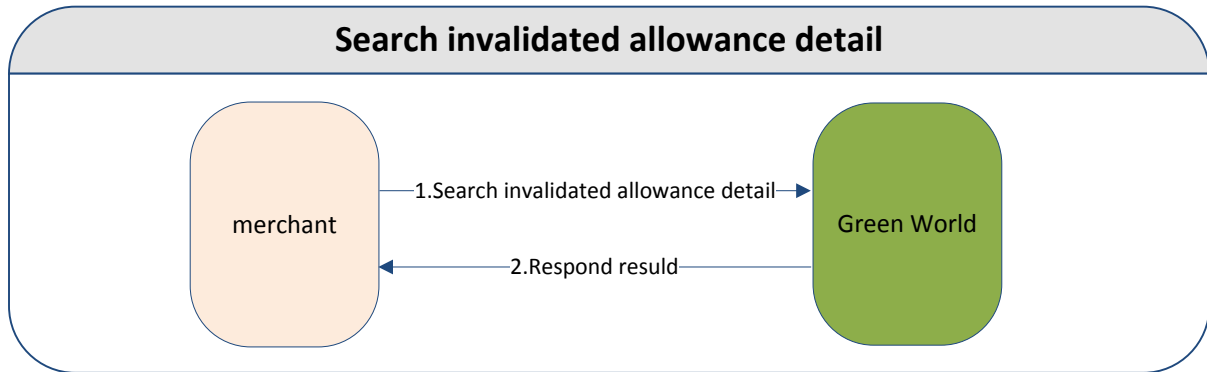
Parameter	Definition	Type	Description	Example
*TimeStamp	Time stamp	Int	<p>Green world will use the time of the parameter, transform it into a UnixTimeStamp to verify the time slot of this interface.</p> <p><b>Special note:</b></p> <ol style="list-style-type: none"> <li>The verification time slot is temporary set as effective for 5 minutes; if verification is not completed in time, the order will not be completed.</li> </ol> <p>Reference Information :</p> <p><a href="http://www.epochconverter.com/">http://www.epochconverter.com/</a></p> <ol style="list-style-type: none"> <li>Merchant shall conduct the host "Time calibration" to ensure there is no time discrepancy between host to avoid the API from functioning normally.</li> </ol>	1439451807
*MerchantID	Merchant ID	String(10)	<ol style="list-style-type: none"> <li><a href="#">Test environment merchant ID</a></li> <li><a href="#">Obtain a cryptographic key for Production</a></li> </ol>	2000132
*RelateNumber	Merchant custom code	String(30)	Fix length of 30 characters	XN12345678
*CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation	

● Green World parameter transmit in response:

Parameter	Description	Type	Description	Example
RtnCode	Response code	Int	1 is success, others are failure.	1
RtnMsg	Response	String(200)		Query success
IIS_Mer_ID	merchant ID	String(10)		2000132
II_Invoice_No	Invoice number	String(10)		XN123456789
II_Date	Invalidation Time	String(20)	Format is "yyyy-MM-dd HH:mm:ss"	2016-02-01 14:20:00
II_Upload_Status	Upload status	String(1)	1: Upload complete 0: Not yet uploaded	1
II_Upload_Date	Upload time	String(20)	Format is "yyyy-MM-dd HH:mm:ss"	
Reason	Invalidation Reason	String(20)	1. Will be output in the form of URL Encode coding 2. The parameter shall be exempted when calculating the check digit	
II_Seller_Identifier	Seller Government Uniform Invoice number	String(10)		53538851
II_Buyer_Identifier	Buyer Government Uniform Invoice number	String(10)	0000000000 implies that there is no Government Uniform Invoice number	
CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

## 10. Search Invalidated Allowance Detail

- Application Example:  
Merchant can use this API to search for detail of invalidated allowance  
(**Special note:** There is IP restriction access, please go the "Merchant back end->General Information Query->Merchant General Information" to set IP)
- Application process:



(Diagram) Invalidated allowance detail search demonstration flowchart

- API URL:
  - Stage: <https://einvoice-stage.ecpay.com.tw/Query/AllowanceInvalid>
  - Production: <https://einvoice.ecpay.com.tw/Query/AllowanceInvalid>
- The merchant request parameter (If there is a red asterisk\* before the name then it is required):

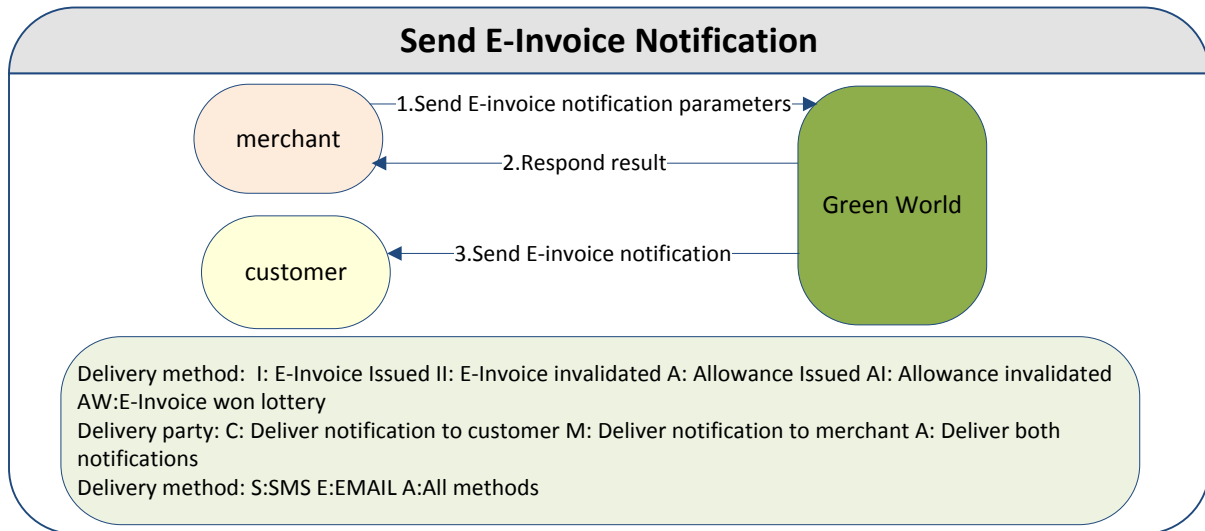
Parameter	Definition	Type	Description	Example
*TimeStamp	Time stamp	Int	<p>Green world will use the time of the parameter, transform it into a UnixTimeStamp to verify the time slot of this interface.</p> <p><b>Special note:</b></p> <ol style="list-style-type: none"> <li>The verification time slot is temporary set as effective for 5 minutes; if verification is not completed in time, the order will not be completed.</li> </ol> <p>Reference Information :</p> <p><a href="http://www.epochconverter.com/">http://www.epochconverter.com/</a></p> <ol style="list-style-type: none"> <li>Merchant shall conduct the host "Time calibration" to ensure there is no time discrepancy between host to avoid the API from functioning normally.</li> </ol>	1439451807
*MerchantID	merchant ID	String(10)	<ol style="list-style-type: none"> <li><a href="#">Test environment merchant ID</a></li> <li><a href="#">Obtain a cryptographic key for Production</a></li> </ol>	2000132
*InvoiceNo	Invoice number	String(10)	Fix length of 10 characters	XN12345678
*AllowanceNo	Allowance Code	String(16)	Fix length of 16 characters	Ecpay0123456789
*CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation	

● Green World parameter transmit in response:

Parameter	Description	Type	Description	Example
RtnCode	Response code	Int	1 is success, others are failure.	1
RtnMsg	Response	String(200)		Query success
AI_Allow_Date	Allowance order date	String(20)	Format is "yyyy-MM-dd HH:mm:ss"	2016-02-01 14:20:00
AI_Allow_No	Allowance order number	String(16)		ecpay123456789
AI_Buyer_Identifier	Buyer Government Uniform Invoice number	String(10)	0000000000 Implies that there is no Government Uniform Invoice number	
AI_Date	Invalidation Time	String(20)	Format is "yyyy-MM-dd HH:mm:ss"	2016-02-01 14:20:00
AI_Invoice_No	Invoice number	String(10)		XN123456789
AI_Mer_ID	Merchant Code	String(10)		2000132
Reason	Invalidation Reason	String(20)	1. Will be output in the form of URL Encode coding 2. The parameter shall be exempted when calculating the check digit	
AI_Seller_Identifier	Seller Government Uniform Invoice number	String(10)		
AI_Upload_Date	Upload time	String(20)	Format is "yyyy-MM-dd HH:mm:ss"	2016-02-01 14:20:00
AI_Upload_Status	Upload status	String(1)	1: Upload complete 0: Not yet uploaded	1
CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation	

## 11. Send E-Invoice Notification

- **Application Example:**  
The merchant can use this API to deliver E-Invoice notification (or merchants can also go to [Merchant's Admin Website](#) to do the same thing if merchants do not want to use this API).
- **Application process:**



(Diagram) E-Invoice Notification delivery demonstration flowchart

- **API URL:**
  - Stage: <https://einvoice-stage.ecpay.com.tw/Notify/InvoiceNotify>
  - Production: <https://einvoice.ecpay.com.tw/Notify/InvoiceNotify>

### ※Special note:

- (1) On Stage environment, Green World will not send any notification. Any notification that should be sent to a specific e-mail address must be set firstly on Merchant's Admin Website.
- (2) Since Green World will check the winning invoice on 29th of every odd month (i.e. January, March, May, July, September, and November), merchants should set the e-mail address beforehand so that Green World can notify consumers if he/she wins the invoice lottery.

- The merchant request parameter (If there is a red asterisk\* before the name then it is required):

Parameter	Definition	Type	Description	Example
*TimeStamp	Time stamp	Int	<p>Green world will use the time of the parameter, transform it into a UnixTimeStamp to verify the time slot of this interface.</p> <p><b>Special note:</b></p> <ol style="list-style-type: none"> <li>The verification time slot is temporary set as effective for 5 minutes; if verification is not completed in time, the order will not be completed.</li> </ol> <p>Reference Information:  <a href="http://www.epochconverter.com/">http://www.epochconverter.com/</a></p> <ol style="list-style-type: none"> <li>Merchant shall conduct the host "Time calibration" to ensure there is no time discrepancy between host to avoid the API from functioning normally.</li> </ol>	1439451807
*MerchantID	merchant ID	String(10)	<ol style="list-style-type: none"> <li><a href="#">Test environment merchant ID</a></li> <li><a href="#">Obtain a cryptographic key for Production</a></li> </ol>	2000132
InvoiceNo	E-Invoice number	String(10)	Fix length of 10 characters	
AllowanceNo	Allowance Code	String(16)	<p>Fix length of 16 characters</p> <p><b>Special note:</b> If the delivery content type (Invoice Tag) is A or AI then it is required</p>	ecpay00123456789
Phone	Delivery SMS number	String(20)	<ol style="list-style-type: none"> <li>This parameter can be chosen between the customer's Email, if the customer's Email is blank then this parameter needs value</li> <li>Format is numerical digits</li> </ol>	
NotifyMail	Deliver EMAIL	String(80)	<ol style="list-style-type: none"> <li>This parameter can be chosen between the customer's phone number, if the customer's phone number is blank then this parameter needs value</li> <li>Only accepts standard format E-mail</li> <li><b>Please make the parameter value a URL Encode</b>, if non .NET coding language is used then please refer to <a href="#">URL Encode Conversion Table</a> to change the character</li> </ol>	
*Notify	Delivery method	String(1)	<p>S: SMS E: EMAIL A: All methods</p>	A
*InvoiceTag	Delivery content type	String(2)	<p>I: E-Invoice Issued II: E-Invoice invalidated A: Allowance Issued AI: Allowance invalidated AW: E-Invoice won lottery</p>	I

Parameter	Definition	Type	Description	Example
*Notified	Delivery party	String(1)	C: Deliver notification to customer M: Deliver notification to merchant A: Deliver both notifications	A
*CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check_digit mechanism</a> for calculation	

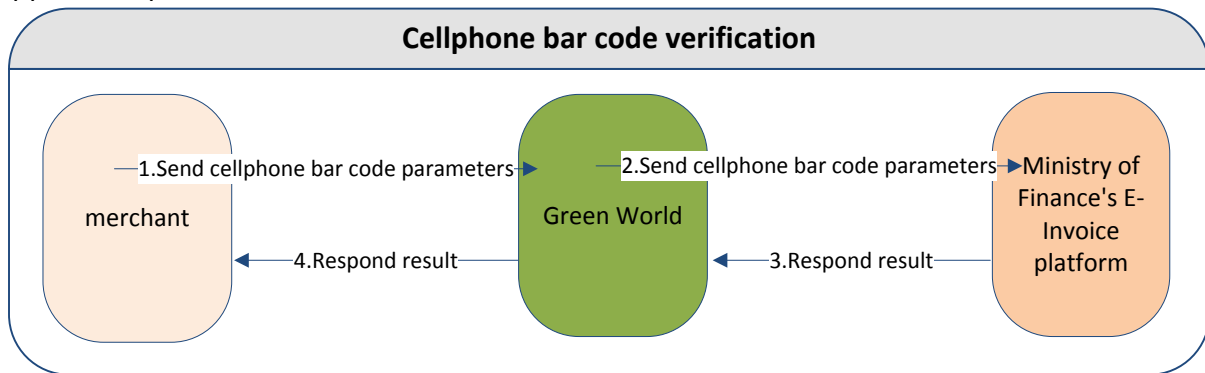
● Green World parameter transmit in response:

Parameter	Definition	Type	Description	Example
RtnCode	Response code	Int	1 is success, others are failure.	1
RtnMsg	Response	String(200)		Delivered
MerchantID	merchant ID	String(10)	1. <a href="#">Test environment merchant ID</a> 2. <a href="#">Obtain a cryptographic key for Production</a>	2000132
CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check_digit mechanism</a> for calculation.	



## 12. Cellphone bar code verification

- Application Example:  
The merchant can use this API to verify whether the cell phone's bar code exist
- Application process:



(Diagram) Cellphone bar code verification demonstration flowchart

- API URL:
  - Stage: <https://einvoice-stage.ecpay.com.tw/Query/CheckMobileBarCode>
  - Production: <https://einvoice.ecpay.com.tw/Query/CheckMobileBarCode>
- The merchant request parameter (If there is a red asterisk\* before the name then it is required):

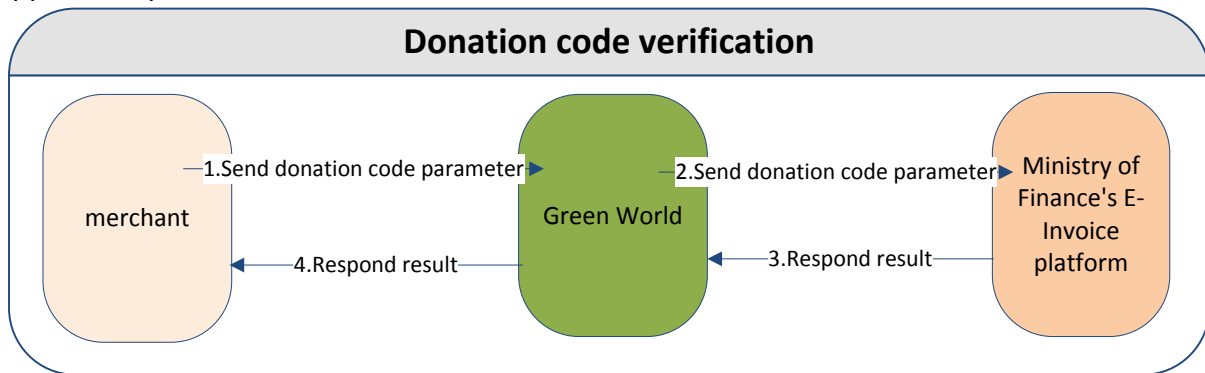
Parameter	Definition	Type	Description	Example
*TimeStamp	Time stamp	Int	<p>Green world will use the time of the parameter, transform it into a UnixTimeStamp to verify the time slot of this interface.</p> <p><b>Special note:</b></p> <ol style="list-style-type: none"> <li>The verification time slot is temporary set as effective for 5 minutes; if verification is not completed in time, the order will not be completed.</li> </ol> <p>Reference Information:</p> <p><a href="http://www.epochconverter.com/">http://www.epochconverter.com/</a></p> <ol style="list-style-type: none"> <li>Merchant shall conduct the host "Time calibration" to ensure there is no time discrepancy between host to avoid the API from functioning normally.</li> </ol>	1439451807
*MerchantID	merchant ID	String(10)	<ol style="list-style-type: none"> <li><a href="#">Test environment merchant ID</a></li> <li><a href="#">Obtain a cryptographic key for Production</a></li> </ol>	2000132
*BarCode	Cellphone bar code	String(8)	<p>Sequence format should be 1 code slash "/" followed by a sequence of 7 numerical digits, alphabets (Fixed length of 7 units)</p> <p><b>Special note:</b></p> <p>When the cellphone carrier has a plus sign, then there might be an error during interfacing verification, please change the plus sign to a blank character to produce verification code.</p>	/RXNOFER
*CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

● Green World parameter transmit in response:

Parameter	Definition	Type	Description	Example
RtnCode	Response code	Int	1 is success, others are failure. <b>Special note:</b> This parameter only represents the result of the API call, its result does not represent whether the cellphone bar code actually exist.	1
RtnMsg	Response	String(200)		Success
IsExist	Whether the cellphone bar code exist	String(1)	If the response code [RtnCode] is 1(Success), discern after this parameter value Y: Exist N: Does not exist	Y
CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

### 13. Donation Code verification

- Application Example:  
The merchant can use this API to verify whether the donation code exist
- Application process:



(Diagram) Donation code verification demonstration flowchart

- API URL:
  - Stage: <https://einvoice-stage.ecpay.com.tw/Query/CheckLoveCode>
  - Production: <https://einvoice.ecpay.com.tw/Query/CheckLoveCode>
- The merchant request parameter (If there is a red asterisk\* before the name then it is required):

Parameter	Definition	Type	Description	Example
*TimeStamp	Time stamp	Int	<p>Green world will use the time of the parameter, transform it into a UnixTimeStamp to verify the time slot of this interface.</p> <p><b>Special note:</b></p> <ol style="list-style-type: none"> <li>The verification time slot is temporary set as effective for 5 minutes; if verification is not completed in time, the order will not be completed.</li> </ol> <p>Reference Information:  <a href="http://www.epochconverter.com/">http://www.epochconverter.com/</a></p> <ol style="list-style-type: none"> <li>Merchant shall conduct the host "Time calibration" to ensure there is no time discrepancy between host to avoid the API from functioning normally.</li> </ol>	1439451807
*MerchantID	merchant ID	String(10)	<ol style="list-style-type: none"> <li><a href="#">Test environment merchant ID</a></li> <li><a href="#">Obtain a cryptographic key for Production</a></li> </ol>	2000132
*LoveCode	Donated organization donation code	String(7)	<p>Donation code is limited to numerical digits, a minimum of three and maximum of seven. Content is designated as "Character Format", first digit can be 0</p>	329580
*CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

● Green World parameter transmit in response:

Parameter	Definition	Type	Description	Example
RtnCode	Response code	Int	1 is success, others are failure. <b>Special note:</b> This parameter only represents the transaction result, it does not represent whether the donation code actually exist	1
RtnMsg	Response	String(200)		Success
IsExist	Whether donation code Exist	String(1)	If the response code [RtnCode] is 1(Success), discern after this parameter value Y: Exist N: Does not exist	Y
CheckMacValue	Check digit	String	Please refer to the appendix <a href="#">check digit mechanism</a> for calculation.	

## Appendix 1. Checksum

- When the merchant sends data to Green World, apart from referring to each API to exclude unnecessary parameters and CheckMacValue parameters, other parameters all need to have the check digit mechanism. The merchant shall need to discern whether the CheckMacValue is correct and whether the transaction has completed the relative processing. If it has not been discerned, then the data may have been tampered with during transmission, increasing unnecessary risk and possibility of loss.
- The composition procedure of check digit, as follows for "[General Invoice Issuance API](#)" parameter an example:

- Transmission of the parameter will begin with first alphabet, beginning from A to Z (When the first same alphabet is encountered, it will be compared to the second alphabet, so on and so forth), connecting all parameters with the & method.

```
CustomerAddr=%e8%87%ba%e5%8c%97%e5%b8%82%e5%8d%97%e6%b8%af%e5%8d%80%e4%b8%89%e9%87%8d%e8%b7%af19-2%e8%99%9f56%e6%a8%93-2+(D%e6%a3%9f)&CustomerEmail=abc%40ecpay.com.tw&CustomerName=%e7%b6%a0%e7%95%8c%e7%a7%91%e6%8a%80%e9%9b%bb%e5%ad%90%e6%94%af%e4%bb%98%e8%82%a1%e4%bb%bd%e6%9c%89%e9%99%90%e5%85%ac%e5%8f%b8&Donation=2&InvType=07&ItemAmount=100&ItemCount=1&ItemPrice=100&MerchantID=2000132&Print=0&RelateNumber=1234567890E&SalesAmount=100&TaxType=1&TimeStamp=1489735068
```

- A HashKey is added in front of the parameter and a HashIV is added at the end of the parameter

```
HashKey=ejCk326UnaZWKisg&CustomerAddr=%e8%87%ba%e5%8c%97%e5%b8%82%e5%8d%97%e6%b8%af%e5%8d%80%e4%b8%89%e9%87%8d%e8%b7%af19-2%e8%99%9f56%e6%a8%93-2+(D%e6%a3%9f)&CustomerEmail=abc%40ecpay.com.tw&CustomerName=%e7%b6%a0%e7%95%8c%e7%a7%91%e6%8a%80%e9%9b%bb%e5%ad%90%e6%94%af%e4%bb%98%e8%82%a1%e4%bb%bd%e6%9c%89%e9%99%90%e5%85%ac%e5%8f%b8&Donation=2&InvType=07&ItemAmount=100&ItemCount=1&ItemPrice=100&MerchantID=2000132&Print=0&RelateNumber=1234567890E&SalesAmount=100&TaxType=1&TimeStamp=1489735068&HashIV=q9jcZX8Ib9LM8wYk
```

- The entire string will go through URL encoding

```
HashKey%3dejCk326UnaZWKisg%26CustomerAddr%3d%25e8%2587%25ba%25e5%258c%2597%25e5%25b8%2582%25e5%258d%2597%25e6%25b8%25af%25e5%258d%2580%25e4%25b8%2589%25e9%2587%258d%25e8%25b7%25af19-2%25e8%2599%259f56%25e6%25a8%2593-2%2b%28D%25e6%25a3%259f%29%26CustomerEmail%3dabc%2540ecpay.com.tw%26CustomerName%3d%25e7%25b6%25a0%25e7%2595%258c%25e7%25a7%2591%25e6%258a%2580%25e9%259b%25bb%25e5%25ad%2590%25e6%2594%25af%25e4%25bb%2598%25e8%2582%25a1%25e4%25bb%25bd%25e6%259c%2589%25e9%2599%2590%25e5%2585%25ac%25e5%258f%25b8%26Donation%3d2%26InvType%3d07%26ItemAmount%3d100%26ItemCount%3d1%26ItemPrice%3d100%26MerchantID%3d2000132%26Print%3d0%26RelateNumber%3d1234567890E%26SalesAmount%3d100%26TaxType%3d1%26TimeStamp%3d1489735068%26HashIV%3dq9jcZX8Ib9LM8wYk
```

- Switched to lowercase

```
hashkey%3dejck326unazwkisg%26customeraddr%3d%25e8%2587%25ba%25e5%258c%2597%25e5%25b8%2582%25e5%258d%2597%25e6%25b8%25af%25e5%258d%2580%25e4%25b8%2589%25e9%2587%258d%25e8%25b7%25af19-2%25e8%2599%259f56%25e6%25a8%2593-2%2b%28d%25e6%25a3%259f%29%26customeremail%3dabc%2540ecpay.com.tw%26customername%3d%25e7%25b6%25a0%25e7%2595%258c%25e7%25a7%2591%25e6%258a%2580%25e9%259b%25bb%25e5%25ad%2590%25e6%2594%25af%25e4%25bb%2598%25e8%2582%25a1%25e4%25bb%25bd%25e6%259c%2589%25e9%2599%2590%25e5%2585%25ac%25e5%258f%25b8%26donation%3d2%26invtype%3d07%26itemamount%3d100%26itemcount%3d1%26itemprice%3d100%26merchantid%3d2000132%26print%3d0%26relatenum%3d1234567890e%26salesamount%3d100%26taxtype%3d1%26timestamp%3d1489735068%26hashiv%3dq9jcZX8Ib9LM8wYk
```

```
9735068%26hashiv%3dq9jczx8ib9lm8wyk
```

- (5) Convert the character based on the [URL Encode Conversion Table](#) (When using non .NET programming language)

```
hashkey%3dejck326unazwkisg%26customeraddr%3d%25e8%2587%25ba%25e5%258c%2597%25e5%25b8%2582%25e5%258d%2597%25e6%25b8%25af%25e5%258d%2580%25e4%25b8%2589%25e9%2587%258d%25e8%25b7%25af19-2%25e8%2599%259f56%25e6%25a8%2593-2%2b(d%25e6%25a3%259f)%26customeremail%3dabc%2540ecpay.com.tw%26customername%3d%25e7%25b6%25a0%25e7%2595%258c%25e7%25a7%2591%25e6%258a%2580%25e9%259b%25bb%25e5%25ad%2590%25e6%2594%25af%25e4%25bb%2598%25e8%2582%25a1%25e4%25bb%25bd%25e6%259c%2589%25e9%2599%2590%25e5%2585%25ac%25e5%258f%25b8%26donation%3d2%26invtype%3d07%26itemamount%3d100%26itemcount%3d1%26itemprice%3d100%26merchantid%3d2000132%26print%3d0%26relatenum%3d1234567890e%26salesamount%3d100%26taxtype%3d1%26timestamp%3d1489735068%26hashiv%3dq9jczx8ib9lm8wyk
```

- (6) Use MD5 encryption to produce hash value

```
0bee7cb7fbca6784d0c2bcb1eac4be0c
```

- (7) Then transform to capital sized to produce CheckMacValue

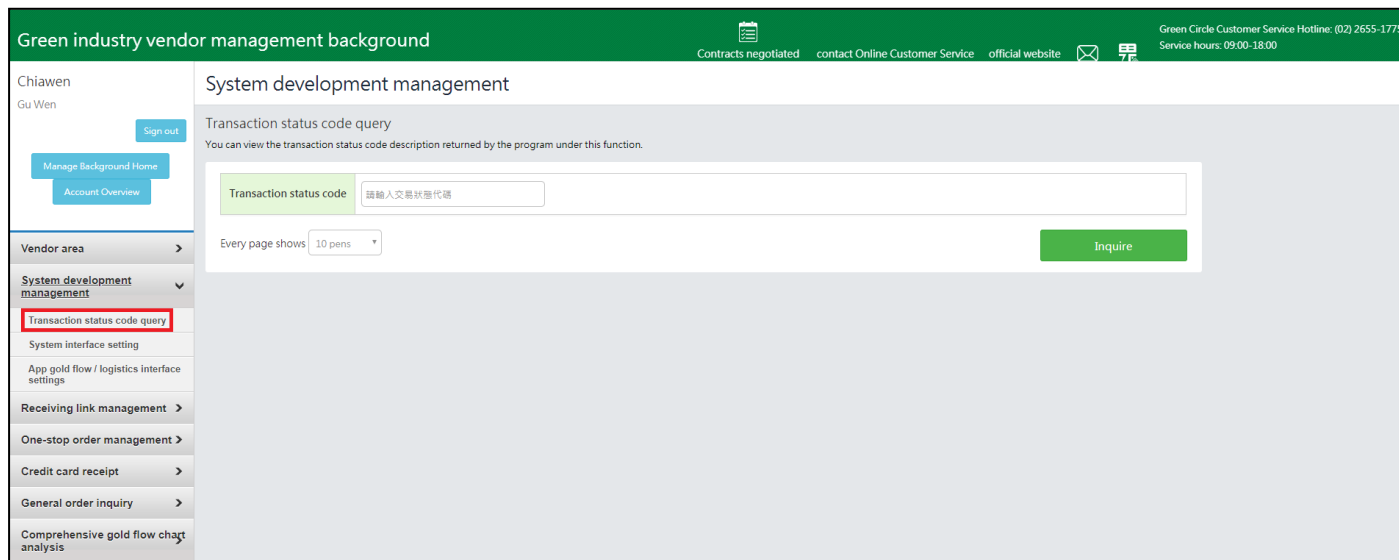
```
0BEE7CB7FBCA6784D0C2BCB1EAC4BE0C
```

## Appendix 2. Transaction Status Code Table

Due to the continued increase of error codes, for more detailed error codes, please go to Merchant's admin website → System Development Management -> Transaction Status Code Query.

※Special note:

The following is Green World merchant's admin website translated via Google translation. The original is in Chinese only.



The screenshot shows the 'System development management' page of the 'Green industry vendor management background' system. The page has a green header with the title 'Green industry vendor management background' and a navigation bar with links: 'Contracts negotiated', 'contact Online Customer Service', 'official website', and 'Service hours: 09:00-18:00'. The main content area is titled 'System development management' and contains a 'Transaction status code query' section. This section includes a text input field labeled 'Transaction status code' with the placeholder text '請輸入交易狀態代碼', a dropdown menu for 'Every page shows' set to '10 pens', and a green 'Inquire' button. The left sidebar contains a menu with items: 'Vendor area', 'System development management' (expanded), 'Transaction status code query' (highlighted with a red box), 'System interface setting', 'App gold flow / logistics interface settings', 'Receiving link management', 'One-stop order management', 'Credit card receipt', 'General order inquiry', and 'Comprehensive gold flow chart analysis'.

### Appendix 3. URL Encode Table

Special characters	URL-encoded results	URL-encoded results of .NET (the software framework used by Green World)
-	%2d	-
_	%5f	_
.	%2e	.
!	%21	!
~	%7e	%7e
*	%2a	*
(	%28	(
)	%29	)
space	%20	+
@	%40	%40
#	%23	%23
\$	%24	%24
%	%25	%25
^	%5e	%5e
&	%26	%26
=	%3d	%3d
+	%2b	%2b
;	%3b	%3b
?	%3f	%3f
/	%2f	%2f
\	%5c	%5c
>	%3e	%3e
<	%3c	%3c
%	%25	%25
`	%60	%60
[	%5b	%5b
]	%5d	%5d
{	%7b	%7b
}	%7d	%7d
:	%3a	%3a
'	%27	%27
"	%22	%22
,	%2c	%2c
	%7c	%7c

#### ※Special note:

- (1) Please confirm that your language's URLEncode function satisfies the appendix [URL Encode Table](#) ".NET code (ecpay)" parameter value after conversion. If there are any character that does not satisfy, please use the character replacement function to manage to avoid being unable to satisfy inspection rules.

Example: PHP urlencode function will encode the ! Character to %21, which does not satisfy the ".NET code (ecpay)", so when using PHP urlencode please use the str\_replace function to convert the %21 back to the ! character. The following explanation will be done using only PHP conversion:

```
$sMacValue = str_replace('%21', '!', $sMacValue);
$sMacValue = str_replace('%2a', '*', $sMacValue);
$sMacValue = str_replace('%28', '(', $sMacValue);
$sMacValue = str_replace('%29', ')', $sMacValue);
```

For conversion functions in other programming languages, please refer to the relevant encoding conversion rules.