

## Notes on Proposing Transactions in EU Emissions Trading Registries

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This document aims to provide a brief explanation of the EU / UN Emissions Trading Registry systems and their limitations, as these can directly affect the way in which users interact with these systems. Following the top tips outlined below will help to ensure transactions are processed with the minimum of problems.

The most important point to note is that each proposed transaction involves a series of messages between national registries and transactions logs and although the majority of transactions are finalised within seconds or minutes, some can take longer and even up to 24 hours.

### THE REGISTRY SHOULD NOT BE REGARDED AS A REAL-TIME SYSTEM.

Section 1 highlights the four golden rules that you should follow in order to help ensure your transaction goes through smoothly. Section 2 provides background information and a more detailed explanation on registry systems.

#### 1. Top Tips for a Successful Transaction

##### 1. When proposing a transaction, select units that have been in your account for *at least two days*

- a. This can be achieved through the "Select Units Manually" function, described in the User Guide in the secure section of the Registry or the demo videos <http://www.environment-agency.gov.uk/business/topics/pollution/32250.aspx> and follow link to [http://www.aeasolutions.co.uk/EA/Registry/3.ProposeTransfer/EA\\_Registry\\_ProposeTransfer.html](http://www.aeasolutions.co.uk/EA/Registry/3.ProposeTransfer/EA_Registry_ProposeTransfer.html).
- b. **Propose transactions *at least three working days* before you need them to be finalised in the destination account.** If your transaction is critical, consider proposing transactions even earlier to be certain it is successful in time.
- c. The registry systems are not real-time and any problems or issues take time to resolve. **Sometimes this can take two or three days.**

##### 2. Do not include more than one unit type in a single transaction.

If you need to send multiple unit types to the same destination account, send each unit type in a separate transaction.

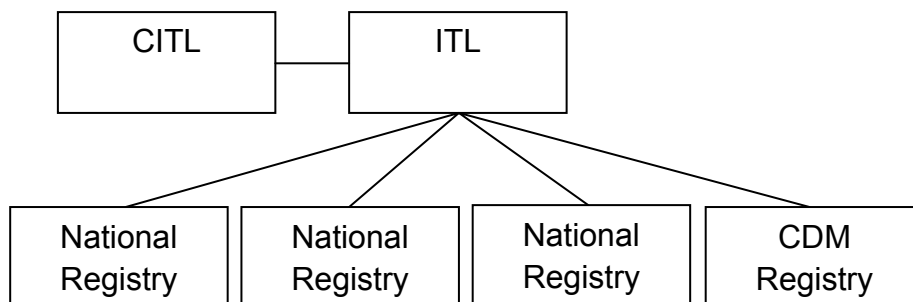
##### 3. Do not send more than 40 unit blocks in a single transaction.

This can be checked through the "Select Units Manually" function, described in the User Guide / demo videos as section 1.1. A block of units is a number of allowances or units with contiguous serial numbers.

In the event of any issues with the above not covered by the User Guide and demo video files as described above. Please contact the Registry Administrator at [etregistryhelp@environment-agency.gov.uk](mailto:etregistryhelp@environment-agency.gov.uk).

## 2. Background

All transactions are proposed by the end-user in the national registry to the ITL. Processing of these transactions involves a series of messages between the national registries involved, the International Transaction Log (ITL), administered by the UNFCCC and the Community Independent Transaction Log (CITL), administered by the European Commission. Checks are performed on the transaction messages to ensure that they adhere to national, EU and UN laws and specifications. Figure 1 below shows the links between these systems. Note that national registries do not communicate directly with each other – all transactions are routed through the ITL (and for EU ETS transactions, the CITL also).



**Figure 1 – Links between registry systems and transaction logs**

This messaging process means that whilst most transactions are finalised within a matter of seconds or minutes, some can take longer and the system should not be regarded as real-time. The actual time a transaction takes to finalise will depend on a number of factors, including internet traffic, user system resource availability, policies and availability of ITL, CITL, initiating and recipient Registries etc.

As at November 2008, the UNFCCC shows the following statistics on transaction completion (including rejection and roll back) for 12,000 transactions:

<b>Transaction completion time for the international transaction log</b>	
<b>Time to complete transaction</b>	<b>Percentage of transaction completed</b>
Under 10 seconds	43
Under 30 seconds	71
Under 60 seconds	82
Under 10 minutes	99
Under 24 hours	100

Although the majority of transactions complete quickly, there is a time limit of 24 hours, enforced by the UNFCCC. Any transaction that is not finalised within 24 hours of being proposed by the user is automatically “rolled back”. If this happens the entire transaction has to be re-proposed and the whole process starts all over again. The total elapsed time taken from start to finish of a transaction can therefore take more than a day or two.

In order to ensure that the various registries and transaction logs all remain in sync and contain consistent data sets, a process called “reconciliation” is run every night. This checks the data in the registries against that contained in the transaction logs. Any discrepancies are dealt with through a manual process. This process is managed centrally by the UNFCCC, with national registry administrators and the CITL administrator participating as necessary. Identifying the source of the problem can take time, particularly in cases where the discrepancy involves units being transferred between different national registries. Note that due to the fact that transactions often involve more than one national Registry, it is possible that reconciliation issues in one country can affect other national Registries and delay transaction completion. The process is run at different times in different time zones.

If a problem does occur with a transaction, investigation can start as soon as it is brought to the attention of the registry administrator, **but no action can be taken to intervene in the system until after the 24hour period has elapsed** (doing so would most likely cause more problems). The reconciliation process carried out by the National Registry administrator is a manual process which needs to be coordinated with and authorised by the UNFCCC, EC and all Registries affected. Issues can be exacerbated by time zone issues.

Once a transaction is proposed by the user, the units / unit blocks are “earmarked” in the system, to ensure that they cannot be involved in any other transactions whilst the first is being processed. The units remain in this state until the transaction is completed in the registry. If a transaction encounters a problem and does not complete, the units will remain unavailable until such time as the problem transaction is resolved.

There are a number of issues that end-users have recently experienced, some of which are generic to all registry systems and some of which are specific to the registry software used by particular Member States. Some of the issues reported include:

1. Transaction not being completed. See top tip 1.
2. Transaction failing due to:
  - a. transaction containing more than 40 unit blocks See top tip 2.
  - b. transaction containing multiple unit types See top tip 3.
3. Transaction being “rolled back” after being marked as completed in registry account – For example if the UK completes a transaction but the receiving national Registry does not. The UNFCCC would be unaware of the discrepancy between the two Registries until the reconciliations are complete. A solution must therefore be set up and actioned. Any further transactions in the receiving Registry using the same blocks would be affected and could need to be rolled back. Exactly the same issues would apply if the situation were reversed.

In addition, some Member States have placed restrictions on which unit types can be held in their person and operator holding accounts. For this reason, it is advisable to

contact the administrator of the registry you are transferring to in order to be sure that the transfer you would like to send can be processed.

All EU ETS Registries can be found through the EC public website <http://ec.europa.eu/environment/ets/welcome.do> and following the Registry link.

In the event of an issue after following this advice, please contact the UK registry administrator at [etregistryhelp@environment-agency.gov.uk](mailto:etregistryhelp@environment-agency.gov.uk)