



## Independent assessment report of the national registry of Liechtenstein

Reference	Reg_IAR_LI_2007_1		
Security classification:	Public		
Version number:	v1.0	State:	Final
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Reviewed by:	Andrew Howard/UNFCCC	Date:	7/12/07
Approved by:	Vitaly Matsarski/UNFCCC	Date:	7/12/07

### Circulation list

Name/Role	Organization	Info/Action
RSA	National registry of Liechtenstein	Info
Expert Review Team for Liechtenstein	UNFCCC	Action

### Document change record

Version	Date	Description	Affected sections
v1.0a	4/12/07	First draft	All
v1.0	7/12/07	Final	Summary, Interoperability Evaluation

### Decision

This Independent Assessment Report (IAR) has been prepared by the International Transaction Log (ITL) Administrator. This IAR includes the following Addenda:

- Addendum 1: Initialization 1
- Addendum 2: Glossary



FRAMEWORK CONVENTION ON CLIMATE CHANGE – Secretariat  
CONVENTION - CADRE SUR LES CHANGEMENTS CLIMATIQUES – Secrétariat

IAR SUMMARY							
General information	Registry Name	National registry of Liechtenstein					
	Date of report	7/12/07	Reporting period	N/A			
	IAR Type	Standard IAR <input checked="" type="checkbox"/>	Initial IAR	<input checked="" type="checkbox"/>			
	Components	Initialization Required <input checked="" type="checkbox"/>	Operational Performance Required	<input type="checkbox"/>	Public Availability of Information Required	<input type="checkbox"/>	
	Registry URL	http://www.llv.li/amtstellen/llv-aus-emissionshandelsportal.htm					
	Consolidated system with other Parties?	Yes <input checked="" type="checkbox"/>	No <input checked="" type="checkbox"/>	Parties involved	Switzerland, Monaco		
Overall Registry Assessment	Conclusion	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>				
	Comments / recommendations	The registry has fulfilled all of its obligations regarding conformity with the Data Exchange Standards. These obligations include having adequate transaction procedures; adequate security measures to prevent and resolve unauthorized manipulations; and adequate measures for data storage and registry recovery. The registry is therefore deemed fully compliant with the registry requirements defined in decisions 13/CMP.1 and 5/CMP.1, noting that registries do not have obligations regarding Operational Performance or Public Availability of Information prior to the operational phase.					
Initialization	Conclusion	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	N/A <input type="checkbox"/>			
	Initializations during reporting period	1	2	3			
	Initialization status	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/> N/A <input type="checkbox"/>	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/> N/A <input type="checkbox"/>	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/> N/A <input type="checkbox"/>			
	Start Date	4/4/07					
	End Date	19/10/07					
	Comments / recommendations						
Operational Performance	Conclusion	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	N/A <input type="checkbox"/>			
	Comments / recommendations						
Public Availability of Information	Conclusion	Complete <input checked="" type="checkbox"/>	Incomplete <input type="checkbox"/>	No data <input type="checkbox"/>	N/A <input type="checkbox"/>		
	Main Web Address				Date last accessed		
	Comments / recommendations						



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RSA Consultation on Draft IAR	Date of Review	7/12/07		
	Author	Patrick Insinna	Position	Senior Officer
	Final Comments	None		

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of the national registry of Liechtenstein**





**Addendum 1**

**Initialization 1**

Registry Name	National registry of Liechtenstein	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/> N/A <input type="checkbox"/>
Date of report	7/12/07	
Reporting Period	N/A	
Start Date	4/4/07	
End Date	19/10/07	
Comments / recommendations		

## 1 Documentation Evaluation

This evaluation was carried out by the ITL Operator under the initialization process and aggregated results have been transcribed here in full.

Status	Green  Amber  Red  N/A 
Total Score (max. 100)	83%
Comments / recommendations	

The scoring approach used to evaluate the registry documentation is to assess the confidence level associated with each document, based on quality (completeness / accuracy / consistency of information supplied) and evidence (actual results supporting information supplied, if appropriate). The approach is set out below (see the ITL Initialization Process documentation for further information).




<b>Status</b>	<b>Description</b>	<b>Score</b>
Green	No significant concerns about the state of registry readiness are identified.	> 80
Amber	Minor limitations in the state of registry readiness are identified.	50 - 80
Red	Significant concerns about the state of registry readiness are identified.	< 50










<b>Ref.</b>	<b>Test Description</b>	<b>Quality</b>	<b>Evidence</b>	<b>Confidence<sup>1</sup></b>
1.1	<b>Database and Application Backup</b> Detailed plan describing backup procedures for the production database and software.	90%	100%	93%
1.2	<b>Disaster Recovery Plan</b> Plan designed to enable Registry to survive in the event of catastrophic failure or disruption of the host environment and to re-establish normal business operations as quickly as possible.	76%	89%	80%
1.3	<b>Security Plan</b> Plan defined in order to protect the application and data from unrestricted and unsolicited use.	81%	78%	80%
1.4	<b>Application Logging Documentation</b> Documentation describing registry capability to maintain database logs and activity logs, provided to demonstrate conformance with Section 7 of the Data Exchange Standards.	100%	62%	73%
1.5	<b>Time Validation Plan</b> Specific procedures for validating server time on a periodic basis to allow successful data exchange.	86%	89%	87%
1.6	<b>Version Change Management</b> Procedure providing a clear migration path to upgrade from version to version of registry software and database schemas.	76%	89%	80%
1.7	<b>Test Plan</b> Plan ensuring a registry has performed basic testing and is capable of participating in the tests outlined in Annex H of the DES, which are required of a registry prior to being authorized to submit production transactions to the ITL.	95%	78%	90%
1.8	<b>Test Report</b> Report providing evidence that a registry has performed basic testing and is capable of participating in the tests outlined in Annex H of the DES, which are required of a registry prior to being authorized to submit production transactions to the ITL.	100%	62%	73%
1.9	<b>Operational Plan</b> Plan ensuring that the Registry has appropriately planned and staffed their operational requirements, so that the initial standards and requirements will be addressed on an ongoing basis.	85%	90%	87%

<sup>1</sup> Figures in this column were calculated using weighted averages for quality and evidence.

## 2 Connectivity Evaluation




This evaluation was carried out by the ITL Operator under the initialization process and the results have been transcribed here in full.





















































































Status	Pass  Fail  N/A 
Comments / recommendations	

<i>Ref.</i>	<i>Test Description</i>	<i>Pass</i>	<i>Fail</i>	<i>N/A</i>
2.1	Establish VPN connectivity between registry and ITL			
2.2	Establish SSL connection			
2.3	Establish basic Web service communication			

### 3 Interoperability Evaluation

This evaluation was carried out by the ITL Operator under the initialization process and aggregated results have been transcribed here in full. In the below table, Reference 5 applies only to EU ETS member registries, and Reference 6 applies only to the CDM registry.

Status	Pass  Fail  N/A 
Comments / recommendations	

<b>Ref.</b>	<b>Test Description</b>	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
<b>3.</b>	<b>Discrete Transaction Tests</b>			
3.1	Issuance			
3.2	Conversion			
3.3	External Transfer			
3.4	Cancellation			
3.5	Retirement			
3.6	Replacement			
3.7	Carry-over			
3.8	Expiry Date Change			
<b>4.</b>	<b>Test Cases (National Registry)</b>			
4.1	Issuance Transaction Tests			
4.2	Conversion Transaction Tests			
4.3	External Transfer Transaction Tests			
4.4	Cancellation Transaction Tests			
4.5	Expiry Date Change Transaction Tests			
4.6	Retirement Transaction Tests			
4.7	Replacement Transaction Tests			
4.8	Carry-Over Transaction Tests			
<b>5.</b>	<b>EU ETS Member Registry Test Cases</b>			
5.1	Account Management Web Services			
5.2	Internal Transfer Transaction Tests			
<b>6.</b>	<b>Test Cases (CDM Registry)</b>			
6.1	Issuance Transaction Tests			
6.2	Internal Transfer Transaction Tests			
6.3	External Transfer Transaction Tests			
6.4	Cancellation Transaction Tests			
6.5	Expiry Date Change Transaction Tests			
6.6	Additional Tests			



**4 Initialization Recommendation (by ITL Operator)**

Recommendation	Yes <input type="checkbox"/> No <input type="checkbox"/>
Comments	

**5 Initialization Authorisation (by ITL Administrator)**

Authorization	Yes <input type="checkbox"/> No <input type="checkbox"/>
Comments	

# Independent Assessment Report of the national registry of Liechtenstein

## Addendum 2

### Glossary

GLOSSARY	
TERM	DEFINITION
Annex H of the DES	The annex of the DES defining the initialization tests that a registry must pass as part of the initialization process
CDM Registry	The registry established by the Executive Board of the Clean Development Mechanism and implemented by the UNFCCC secretariat
CITL	Community Independent Transaction Log. The STL operated by the European Commission for the European Union Emissions Trading Scheme
Connectivity Evaluation	Part of the initialization process that tests whether a registry can connect successfully with the ITL
Consolidated Systems	Registry systems which share system infrastructure
DES	Data Exchange Standards
Document Evaluation	Part of the initialization process that assesses the documentation submitted to the ITL Administrator
ERT	Expert Review Team under Article 8 of the Kyoto Protocol
Final Comments	The final comments made by a RSA on the draft IAR after having received responses from the ITL Administrator on earlier comments
IAR	Independent Assessment Report
Initial IAR	The first IAR carried out for a registry when it initialises for the first time. Subsequent initializations are reported in Standard IARs.
Initialization	The process by which a registry is formally tested by the ITL Administrator for conformity with the DES
International Transaction Log (ITL)	The system established under the Kyoto Protocol to monitor the validity of transactions between Parties. It is implemented by the UNFCCC secretariat
ITL Administrator	The Administrator of the ITL. It is a role assigned to the UNFCCC secretariat
ITL Operator	The service provider that operates the ITL on behalf of the ITL Administrator
N/A	Not Applicable
National Registry	A registry established by an Annex I Party
Operational Performance	The performance of a registry during its operation
Reporting Period	The period of time covered by an IAR
RSA	Registry System Administrator
SEF	Standard Electronic Format, defined for the reporting by Annex B Parties to the Kyoto Protocol of their assigned amount holdings and transactions
SSL	Secure Socket Layer. A standard used to establish encrypted communications
Standard IAR	All IARs subsequent to a successful Initial IAR
Supplementary Transaction Log (STL)	An electronic database established for a Supplementary Trading Programme to monitor the validity of transactions between registries under that programme