

A European Tracking System for Electricity (E-TRACK)

<http://www.e-track-project.org>

Appendix to the Consultation document for the Advisory Group and the third round of consultation workshops

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E-TRACK Scenarios			Scenario:	(Template)				
List of Descriptors								
No.	Descriptor		comment	State A	State B	State C	State D	State E
A. General features of tracking scheme								
A.1	Explicit tracking for non-RES-E / non-HE-CHP generation?			Mandatory for all transactions	Mandatory, except undisclosed imports and purchases from power exchanges	Mandatory for long term contracts	Voluntary	Not possible
A.2	Explicit tracking for RES-E and HE-CHP generation?		<i>E.g. via GOs</i>	Mandatory for RES-E and HE-CHP	Mandatory for part of RES-E and CHP	Voluntary	Not possible	
A.3	Use of standardised accounting units for explicit tracking		<i>E.g. certificates, tags</i>	Mandatory	Optional	Never		
A.3.1		Limited lifetime of accounting units		Acc.units can be used only for the calendar year of issuing	Acc.units can be used longer than the calendar year of issuing	Unlimited	Technically unlimited, but limited by regulations of tracking uses	
A.4	Explicit tracking can be de-linked from electricity contracts?			Yes, standard	Optional	Not possible		
A.4.1		(Standard) Explicit tracking mechanism linked to balances of electricity trading?	<i>Ex post contract tracking, e.g. as in Germany</i>	Yes	Optional	No		
A.5	Physical connection required for participation in tracking?		<i>Relates to off-grid supply and exchanges of attributes from overseas</i>	Yes	No			
A.6	Use of registries for explicit tracking			Mandatory for all explicit tracking	Optional	No registry available		
A.6.1		Type of registries		Unique European registry	Unique registry per country or domain	Several parallel registries	No registry	
A.7	Use of statistical averages (implicit tracking)		<i>(Note)</i>	No default value available	Limited to certain volumes/transactions	Unlimited		
A.7.1		Limitation of total share of statistical averages within portfolio?		Unlimited	Limited to a certain share			
A.7.2		Limitation of use of statistical averages for certain transactions?		Unlimited	Limitation for certain transactions			
A.7.3		Type of statistical average used		European (more than UCTE)	Transmission system, e.g. UCTE	Region (several countries)	National	Sub-national
A.7.4		Correction by attributes tracked explicitly	<i>Corrections result in a residual mix</i>	Unused certificates are collected for the residual mix and redeemed	Other forms of correction by <u>all</u> attributes being tracked explicitly	Other forms of correction by <u>part of</u> the attributes being tracked explicitly	No correction	
A.8	Handling of specific "low-information" processes		<i>Rating according to descriptors A.8.1 to A.8.5</i>	Ambitious approach	Moderate approach	Less ambitious approach		
A.8.1		Handling of imports without explicit tracking	<i>(note)</i>	use regional or national residual or production mix	Use national residual mix if available	Use European production mix	Use national production mix	Treat as "unknown origin"

E-TRACK Scenarios			Scenario:	(Template)				
List of Descriptors								
No.	Descriptor		comment	State A	State B	State C	State D	State E
A.8.2	Handling of exports		<i>(note)</i>	Exports must be associated with explicit tracking information	Explicit tracking optional, otherwise use standard implicit tracking information	Use standard implicit tracking information	Default value different to the standard implicit tracking information	No regulation
A.8.2.1	Accounting of exported attributes			Exported attributes are recorded and must be deducted from exporter's attribute account	Exports of attributes are not accounted for	No regulation		
A.8.3	Handling of power exchange transactions without explicit tracking		<i>Power exchange could also set up e.g. a hydro exchange</i>	Use certificates	Use internal "exchange mix"	Use statistical average used for implicit tracking	Treat as "unknown origin"	
A.8.4	Handling of system losses			Default reduction factor for explicit tracking	Covered by implicit tracking (default)	Ignored		
A.8.5	Handling of balancing power			Use certificates	Linked to statistical average used for implicit tracking	Ignored		
A.9	Measures for regional balancing of physical energy and attributes			Joint residual mix for all participating countries	Ex/Imports must be balanced (either attributes plus power or swap in attributes)	none		
B. Tracked information								
B.1	Qualification as GO		<i>Do accounting units specify whether they qualify as GO?</i>	RES and CHP	Only RES	Only CHP	No information	
B.2	Production period			Mandatory, standardised production periods	Mandatory, no standardised production periods	Optional	No information	
B.3	Issuing date of accounting unit			Mandatory	Optional	No information		
B.4	Energy sources			Detailed list of standard sources (coal, gas, nuclear etc.)	Standard clusters (e.g. nuclear, renewables, fossil&other)	No standardisation		
B.5	Qualification for high-efficiency CHP			Mandatory	Optional	No		
B.5.1	Basis for qualification of HE CHP			Based on CHP Directive	Other criteria	Not applicable		
B.6	Support			Support log, listing all relevant support	Earmark (y/n) for "major" support	No support information		
B.7	RES-E/HE-CHP target		<i>On EU level only relevant for RES-E</i>	RES and CHP	Only RES	Only CHP	No information	
B.8	Environmental indicators							

E-TRACK Scenarios			Scenario:	(Template)				
List of Descriptors								
No.	Descriptor		comment	State A	State B	State C	State D	State E
B.8.1	CO2 emissions		<i>GHG (CO2 equivalents) neglected here</i>	Plant-specific emissions recorded	Plant-specific combination of high/low emission attributes	Emissions of plant type	No CO2 information	
B.8.2	Nuclear waste			Plant-specific waste production recorded	Plant-specific combination of high/low waste production attributes	Waste production of plant type	No nuclear waste information	
B.8.3	Other		<i>SOx, NOx, dust etc.</i>	Additional envir. Indicators included	No inclusion of add. envir. indicators			
B.8.4	Basis of environmental indicators			Full upstream process chain analysis	Standardised factors for impact of upstream process chain	Only direct emissions, no process chain analysis		
B.9	Specific information for quality labels		<i>E.g. EUGENE eligibility and additionality info</i>	Mandatory, standardised	Optional, standardised	Optional, not standardised	No	
C. Uses of tracking								
C.1	Tracking system used for disclosure			Mandatory	Optional	No		
C.2	Tracking system used for green power market			Mandatory	Optional	No		
C.3	Tracking system and support schemes		<i>For RES-E, CHP etc.</i>					
C.3.1	Facilitation of support scheme			Support facilitated through tracking scheme	Support facilitated by a separate tracking scheme	No tracking for support		
C.3.2	Transparency about support		<i>Linked to B.6</i>	Support recorded in tracked information	No provision of support information			
C.4	Tracking system and target accounting		<i>Linked to B.7</i>	Verification of target fully based on tracking system	Tracking of target eligibility for exports and imports	No tracking of target information		
C.5	Accounting units used for several purposes?		<i>This relates to the "multi-certificate" discussion</i>	Separate accounting units for disclosure, support and target	Constraints apply to accounting units for disclosure, support and target	Single accounting unit for disclosure, support and target	Disclosure is only purpose of tracking	
D. Reliability and verification measures								
D.1	Independent verification of tracking results			Mandatory for all participants	Selective verification by the regulator	Verification on voluntary basis only		
D.2	Redemption of accounting units			Mandatory for all uses	Mandatory for disclosure only	No requirements		

E-TRACK Scenarios		Scenario:	Option 0	"Contract based system"				
List of Descriptors			13.10.2006					
No.	Descriptor	comment	State A	State B	State C	State D	State E	Explanations
A. General features of tracking scheme								
A.1	Explicit tracking for non-RES-E / non-HE-CHP generation?		Mandatory for all transactions	Mandatory, except undisclosed imports and purchases from power exchanges	Mandatory for long term contracts	Voluntary	Not possible	
A.2	Explicit tracking for RES-E and HE-CHP generation?	<i>E.g. via GOs</i>	Mandatory for RES-E and HE-CHP	Mandatory for part of RES-E and CHP	Voluntary	Not possible		only exemption: undisclosed imports and purchases from power exchanges
A.3	Use of standardised accounting units for explicit tracking	<i>E.g. certificates, tags</i>	Mandatory	Optional	Never			
A.3.1	Limited lifetime of accounting units		Acc. units can be used only for the calendar year of issuing	Acc. units can be used longer than the calendar year of issuing	Unlimited	Technically unlimited, but limited by regulations of tracking uses		
A.4	Explicit tracking can be de-linked from electricity contracts?		Yes, standard	Optional	Not possible			
A.4.1	(Standard) Explicit tracking mechanism linked to balances of electricity trading?	<i>Ex post contract tracking, e.g. as in Germany</i>		Optional	No			
A.6	Use of registries for explicit tracking		Mandatory for all explicit tracking	Optional	No registry available			
A.6.1	Type of registries		Unique European registry	Unique registry per country or domain	Several parallel registries	No registry		
A.7	Use of statistical averages (implicit tracking)	<i>(Note)</i>	No default value available	Limited to certain volumes/transactions	Unlimited			
A.7.1	Limitation of total share of statistical averages within portfolio?		Unlimited	Limited to a certain share				
A.7.2	Limitation of use of statistical averages for certain transactions?		Unlimited	Limitation for certain transactions				
A.7.3	Type of statistical average used		European (more than UCTE)	Transmission system, e.g. UCTE	Region (several countries)	National	Sub-national	
A.7.4	Correction by attributes tracked explicitly	<i>Corrections result in a residual mix</i>	Unused certificates are collected for the residual mix and redeemed	Other forms of correction by all attributes being tracked explicitly	Other forms of correction by part of the attributes being tracked explicitly	No correction		correction feasible e.g. in a joint (nordic) market; usually probably no information on international residual mix is available
A.8	Handling of specific "low-information" processes	<i>Rating according to descriptors A.8.1 to A.8.5</i>	Ambitious approach	Moderate approach	Less ambitious approach			
A.8.1	Handling of imports without explicit tracking	<i>(note)</i>	use regional or national residual or production mix	Use national residual mix if available	Use European production mix	Use national production mix	Treat as "unknown origin"	transmission system production mix
A.8.2	Handling of exports	<i>(note)</i>	Exports must be associated with explicit tracking information	Explicit tracking optional, otherwise use standard implicit tracking information	Use standard implicit tracking information	Default value different to the standard implicit tracking information	No regulation	

E-TRACK Scenarios				Scenario:	Option 0	"Contract based system"				
List of Descriptors					13.10.2006					
No.	Descriptor			comment	State A	State B	State C	State D	State E	Explanations
A.8.2.1		Accounting of exported attributes				Exported attributes are recorded and must be deducted from exporter's attribute account	Exports of attributes are not accounted for	No regulation		
A.8.3		Handling of power exchange transactions without explicit tracking			<i>Power exchange could also set up e.g. a hydro exchange</i>	Use certificates	Use internal "exchange mix"	Use statistical average used for implicit tracking	Treat as "unknown origin"	
A.9		Measures for regional balancing of physical energy and attributes				Joint residual mix for all participating countries	Ex/Imports must be balanced (either attributes plus power or swap in attributes)	none		
B. Tracked information										
B.1	Qualification as GO			<i>Do accounting units specify whether they qualify as GO?</i>	RES and CHP	Only RES	Only CHP	No information		Not obligatory, but if Gos are used, this will be probably indicated.
B.2	Production period				Mandatory, standardised production periods	Mandatory, no standardised production periods	Optional	No information		
B.3	Issuing date of accounting unit				Mandatory	Optional	No information			
B.4	Energy sources				Detailed list of standard sources (coal, gas, nuclear etc.)	Standard clusters (e.g. nuclear, renewables, fossil&other)	No standardisation			
B.5	Qualification for high-efficiency CHP				Mandatory	Optional	No			
B.5.1		Basis for qualification of HE CHP				Based on CHP Directive	Other criteria	Not applicable		
B.6	Support				Support log, listing all relevant support	Earmark (y/n) for "major" support	No support information			
B.7	RES-E/HE-CHP target			<i>On EU level only relevant for RES-E</i>	RES and CHP	Only RES	Only CHP	No information		
B.8	Environmental indicators									
B.8.1		CO2 emissions			<i>GHG (CO2 equivalents) neglected here</i>	Plant-specific emissions recorded	Plant-specific combination of high/low emission attributes	Emissions of plant type	No CO2 information	
B.8.2		Nuclear waste				Plant-specific waste production recorded	Plant-specific combination of high/low waste production attributes	Waste production of plant type	No nuclear waste information	
B.8.3		Other			<i>SOx, NOx, dust etc.</i>	Additional env. Indicators included	No inclusion of add. env. indicators			
B.8.4		Basis of environmental indicators				Full upstream process chain analysis	Standardised factors for impact of upstream process chain	Only direct emissions, no process chain analysis		

E-TRACK Scenarios		Scenario:	Option 0	"Contract based system"				
List of Descriptors			13.10.2006					
No.	Descriptor	comment	State A	State B	State C	State D	State E	Explanations
B.9	Specific information for quality labels	<i>E.g. EUGENE eligibility and additionality info</i>	Mandatory, standardised	Optional, standardised	Optional, not standardised	No		
C. Uses of tracking								
C.1	Tracking system used for disclosure		Mandatory	Optional	No			
C.2	Tracking system used for green power market		Mandatory	Optional	No			
C.3	Tracking system and support schemes	<i>For RES-E, CHP etc.</i>						
C.3.1	Facilitation of support scheme		Support facilitated through tracking scheme	Support facilitated by a separate tracking scheme	No tracking for support			
C.3.2	Transparency about support	<i>Linked to B.6</i>	Support recorded in tracked information	No provision of support information				
C.4	Tracking system and target accounting	<i>Linked to B.7</i>	Verification of target fully based on tracking system	Tracking of target eligibility for exports and imports	No tracking of target information			
C.5	Accounting units used for several purposes?	<i>This relates to the "multi-certificate" discussion</i>	Separate accounting units for disclosure, support and target	Constraints apply to accounting units for disclosure, support and target	Single accounting unit for disclosure, support and target	Disclosure is only purpose of tracking		
D. Reliability and verification measures								
D.1	Independent verification of tracking results		Mandatory for all participants	Selective verification by the regulator	Verification on voluntary basis only			
D.2	Redemption of accounting units		Mandatory for all uses	Mandatory for disclosure only	No requirements			

E-TRACK Scenarios			Scenario:	Option A	"Ex post contract tracking"				
List of Descriptors				13.10.2006					
No.	Descriptor		comment	State A	State B	State C	State D	State E	Explanations
A. General features of tracking scheme									
A.1	Explicit tracking for non-RES-E / non-HE-CHP generation?			Mandatory for all transactions	Mandatory, except undisclosed imports and purchases from power exchanges	Mandatory for long term contracts	Voluntary	Not possible	
A.2	Explicit tracking for RES-E and HE-CHP generation?		<i>E.g. via GOs</i>	Mandatory for RES-E and HE-CHP	Mandatory for part of RES-E and CHP	Voluntary	Not possible		
A.3	Use of standardised accounting units for explicit tracking		<i>E.g. certificates, tags</i>	Mandatory	Optional	Never			
A.3.1	Limited lifetime of accounting units			Acc.units can be used only for the calendar year of issuing	Acc.units can be used longer than the calendar year of issuing	Unlimited	Technically unlimited, but limited by regulations of tracking uses		
A.4	Explicit tracking can be de-linked from electricity contracts?			Yes, standard	Optional	Not possible			
A.4.1	(Standard) Explicit tracking mechanism linked to balances of electricity trading?		<i>Ex post contract tracking, e.g. as in Germany</i>	Yes	Optional	No			
A.6	Use of registries for explicit tracking			Mandatory for all explicit tracking	Optional	No registry available			
A.6.1	Type of registries			Unique European registry	Unique registry per country or domain	Several parallel registries	No registry		
A.7	Use of statistical averages (implicit tracking)		<i>(Note)</i>	No default value available	Limited to certain volumes/transactions	Unlimited			
A.7.1	Limitation of total share of statistical averages within portfolio?			Unlimited	Limited to a certain share				
A.7.2	Limitation of use of statistical averages for certain transactions?			Unlimited	Limitation for certain transactions				
A.7.3	Type of statistical average used			European (more than UCTE)	Transmission system, e.g. UCTE	Region (several countries)	National	Sub-national	
A.7.4	Correction by attributes tracked explicitly		<i>Corrections result in a residual mix</i>	Unused certificates are collected for the residual mix and redeemed	Other forms of correction by all attributes being tracked explicitly	Other forms of correction by part of the attributes being tracked explicitly	No correction		
A.8	Handling of specific "low-information" processes		<i>Rating according to descriptors A.8.1 to A.8.5</i>	Ambitious approach	Moderate approach	Less ambitious approach			
A.8.1	Handling of imports without explicit tracking		<i>(note)</i>	use regional or national residual or production mix	Use national residual mix if available	Use European production mix	Use national production mix	Treat as "unknown origin"	
A.8.2	Handling of exports		<i>(note)</i>	Exports must be associated with explicit tracking information	Explicit tracking optional, otherwise use standard implicit tracking information	Use standard implicit tracking information	Default value different to the standard implicit tracking information	No regulation	

E-TRACK Scenarios				Scenario:	Option A	"Ex post contract tracking"				
List of Descriptors					13.10.2006					
No.	Descriptor			comment	State A	State B	State C	State D	State E	Explanations
A.8.2.1		Accounting of exported attributes			Exported attributes are recorded and must be deducted from exporter's attribute account	Exports of attributes are not accounted for		No regulation		
A.8.3		Handling of power exchange transactions without explicit tracking			Power exchange could also set up e.g. a hydro exchange	Use certificates	Use internal "exchange mix"	Use statistical average used for implicit tracking	Treat as "unknown origin"	
A.9		Measures for regional balancing of physical energy and attributes				Joint residual mix for all participating countries	Ex/Imports must be balanced (either attributes plus power or swap in attributes)	none		
B. Tracked information										
B.1		Qualification as GO			Do accounting units specify whether they qualify as GO?	RES and CHP	Only RES	Only CHP	No information	
B.2		Production period				Mandatory, standardised production periods	Mandatory, no standardised production periods	Optional	No information	
B.3		Issuing date of accounting unit				Mandatory	Optional	No information		
B.4		Energy sources				Detailed list of standard sources (coal, gas, nuclear etc.)	Standard clusters (e.g. nuclear, renewables, fossil&other)	No standardisation		
B.5		Qualification for high-efficiency CHP				Mandatory	Optional	No		
B.5.1		Basis for qualification of HE CHP				Based on CHP Directive	Other criteria	Not applicable		
B.6		Support				Support log, listing all relevant support	Earmark (y/n) for "major" support	No support information		
B.7		RES-E/HE-CHP target			On EU level only relevant for RES-E	RES and CHP	Only RES	Only CHP	No information	
B.8		Environmental indicators								
B.8.1		CO2 emissions			GHG (CO2 equivalents) neglected here	Plant-specific emissions recorded	Plant-specific combination of high/low emission attributes	Emissions of plant type	No CO2 information	
B.8.2		Nuclear waste				Plant-specific waste production recorded	Plant-specific combination of high/low waste production attributes	Waste production of plant type	No nuclear waste information	
B.8.3		Other			SOx, NOx, dust etc.	Additional enviro. Indicators included	No inclusion of add. enviro. indicators			

E-TRACK Scenarios		Scenario:	Option A	"Ex post contract tracking"				
List of Descriptors			13.10.2006					
No.	Descriptor	comment	State A	State B	State C	State D	State E	Explanations
B.8.4	Basis of environmental indicators		Full upstream process chain analysis	Standardised factors for impact of upstream process chain	Only direct emissions, no process chain analysis			
B.9	Specific information for quality labels	<i>E.g. EUGENE eligibility and additionality info</i>	Mandatory, standardised	Optional, standardised	Optional, not standardised	No		
C. Uses of tracking								
C.1	Tracking system used for disclosure		Mandatory	Optional	No			
C.2	Tracking system used for green power market		Mandatory	Optional	No			
C.3	Tracking system and support schemes	<i>For RES-E, CHP etc.</i>						
C.3.1	Facilitation of support scheme		Support facilitated through tracking scheme	Support facilitated by a separate tracking scheme	No tracking for support			
C.3.2	Transparency about support	<i>Linked to B.6</i>	Support recorded in tracked information	No provision of support information				
C.4	Tracking system and target accounting	<i>Linked to B.7</i>	Verification of target fully based on tracking system	Tracking of target eligibility for exports and imports	No tracking of target information			
C.5	Accounting units used for several purposes?	<i>This relates to the "multi-certificate" discussion</i>	Separate accounting units for disclosure, support and target	Constraints apply to accounting units for disclosure, support and target	Single accounting unit for disclosure, support and target	Disclosure is only purpose of tracking		
D. Reliability and verification measures								
D.1	Independent verification of tracking results		Mandatory for all participants	Selective verification by the regulator	Verification on voluntary basis only			
D.2	Redemption of accounting units		Mandatory for all uses	Mandatory for disclosure only	No requirements			

E-TRACK Scenarios			Scenario:	Option B	"Voluntary certificate system plus residual mix"				
List of Descriptors				13.10.2006					
No.	Descriptor		comment	State A	State B	State C	State D	State E	Explanations
A. General features of tracking scheme									
A.1	Explicit tracking for non-RES-E / non-HE-CHP generation?			Mandatory for all transactions	Mandatory, except undisclosed imports and purchases from power exchanges	Mandatory for long term contracts	Voluntary	Not possible	
A.2	Explicit tracking for RES-E and HE-CHP generation?		<i>E.g. via GOs</i>	Mandatory for RES-E and HE-CHP	Mandatory for part of RES-E and CHP	Voluntary	Not possible		
A.3	Use of standardised accounting units for explicit tracking		<i>E.g. certificates, tags</i>	Mandatory	Optional	Never			
A.3.1	Limited lifetime of accounting units			Acc.units can be used only for the calendar year of issuing	Acc.units can be used longer than the calendar year of issuing	Unlimited	Technically unlimited, but limited by regulations of tracking uses		
A.4	Explicit tracking can be de-linked from electricity contracts?			Yes, standard	Optional	Not possible			
A.4.1	(Standard) Explicit tracking mechanism linked to balances of electricity trading?		<i>Ex post contract tracking, e.g. as in Germany</i>	Yes	Optional	No			
A.6	Use of registries for explicit tracking			Mandatory for all explicit tracking	Optional	No registry available			
A.6.1	Type of registries			Unique European registry	Unique registry per country or domain	Several parallel registries	No registry		
A.7	Use of statistical averages (implicit tracking)		<i>(Note)</i>	No default value available	Limited to certain volumes/transactions	Unlimited			
A.7.1	Limitation of total share of statistical averages within portfolio?			Unlimited	Limited to a certain share				
A.7.2	Limitation of use of statistical averages for certain transactions?			Unlimited	Limitation for certain transactions				
A.7.3	Type of statistical average used			European (more than UCTE)	Transmission system, e.g. UCTE	Region (several countries)	National	Sub-national	
A.7.4	Correction by attributes tracked explicitly		<i>Corrections result in a residual mix</i>	Unused certificates are collected for the residual mix and redeemed	Other forms of correction by all attributes being tracked explicitly	Other forms of correction by part of the attributes being tracked explicitly	No correction		
A.8	Handling of specific "low-information" processes		<i>Rating according to descriptors A.8.1 to A.8.5</i>	Ambitious approach	Moderate approach	Less ambitious approach			
A.8.1	Handling of imports without explicit tracking		<i>(note)</i>	use regional or national residual or production mix	Use national residual mix if available	Use European production mix	Use national production mix	Treat as "unknown origin"	
A.8.2	Handling of exports		<i>(note)</i>	Exports must be associated with explicit tracking information	Explicit tracking optional, otherwise use standard implicit tracking information	Use standard implicit tracking information	Default value different to the standard implicit tracking information	No regulation	

E-TRACK Scenarios			Scenario:	Option B	"Voluntary certificate system plus residual mix"				
List of Descriptors				13.10.2006					
No.	Descriptor		comment	State A	State B	State C	State D	State E	Explanations
A.8.2.1		Accounting of exported attributes		Exported attributes are recorded and must be deducted from exporter's attribute account	Exports of attributes are not accounted for	No regulation			
A.8.3		Handling of power exchange transactions without explicit tracking	Power exchange could also set up e.g. a hydro exchange	Use certificates	Use internal "exchange mix"	Use statistical average used for implicit tracking	Treat as "unknown origin"		As an alternative to certificates, the residual mix might also be accepted (depending on the cap set on implicit tracking)
A.9		Measures for regional balancing of physical energy and attributes		Joint residual mix for all participating countries	Ex/Imports must be balanced (either attributes plus power or swap in attributes)	none			
B. Tracked information									
B.1		Qualification as GO	Do accounting units specify whether they qualify as GO?	RES and CHP	Only RES	Only CHP	No information		
B.2		Production period		Mandatory, standardised production periods	Mandatory, no standardised production periods	Optional	No information		
B.3		Issuing date of accounting unit		Mandatory	Optional	No information			
B.4		Energy sources		Detailed list of standard sources (coal, gas, nuclear etc.)	Standard clusters (e.g. nuclear, renewables, fossil&other)	No standardisation			
B.5		Qualification for high-efficiency CHP		Mandatory	Optional	No			
B.5.1		Basis for qualification of HE CHP		Based on CHP Directive	Other criteria	Not applicable			
B.6		Support		Support log, listing all relevant support	Earmark (y/n) for "major" support	No support information			
B.7		RES-E/HE-CHP target	On EU level only relevant for RES-E	RES and CHP	Only RES	Only CHP	No information		
B.8		Environmental indicators							
B.8.1		CO2 emissions	GHG (CO2 equivalents) neglected here	Plant-specific emissions recorded	Plant-specific combination of high/low emission attributes	Emissions of plant type	No CO2 information		
B.8.2		Nuclear waste		Plant-specific waste production recorded	Plant-specific combination of high/low waste production attributes	Waste production of plant type	No nuclear waste information		
B.8.3		Other	SOx, NOx, dust etc.	Additional envir. Indicators included	No inclusion of add. envir. indicators				

E-TRACK Scenarios		Scenario:	Option B	"Voluntary certificate system plus residual mix"				
List of Descriptors			13.10.2006					
No.	Descriptor	comment	State A	State B	State C	State D	State E	Explanations
B.8.4	Basis of environmental indicators		Full upstream process chain analysis	Standardised factors for impact of upstream process chain	Only direct emissions, no process chain analysis			
B.9	Specific information for quality labels	<i>E.g. EUGENE eligibility and additionality info</i>	Mandatory, standardised	Optional, standardised	Optional, not standardised	No		
C. Uses of tracking								
C.1	Tracking system used for disclosure		Mandatory	Optional	No			
C.2	Tracking system used for green power market		Mandatory	Optional	No			
C.3	Tracking system and support schemes	<i>For RES-E, CHP etc.</i>						
C.3.1	Facilitation of support scheme		Support facilitated through tracking scheme	Support facilitated by a separate tracking scheme	No tracking for support			
C.3.2	Transparency about support	<i>Linked to B.6</i>	Support recorded in tracked information	No provision of support information				
C.4	Tracking system and target accounting	<i>Linked to B.7</i>	Verification of target fully based on tracking system	Tracking of target eligibility for exports and imports	No tracking of target information			
C.5	Accounting units used for several purposes?	<i>This relates to the "multi-certificate" discussion</i>	Separate accounting units for disclosure, support and target	Constraints apply to accounting units for disclosure, support and target	Single accounting unit for disclosure, support and target	Disclosure is only purpose of tracking		Cost of support is allocated separately, but target and disclosure are linked
D. Reliability and verification measures								
D.1	Independent verification of tracking results		Mandatory for all participants	Selective verification by the regulator	Verification on voluntary basis only			
D.2	Redemption of accounting units		Mandatory for all uses	Mandatory for disclosure only	No requirements			

E-TRACK Scenarios			Scenario:	Option C	"Ambitious certificate system plus residual mix"				
List of Descriptors				13.10.2006					
No.	Descriptor		comment	State A	State B	State C	State D	State E	Explanations
A. General features of tracking scheme									
A.1	Explicit tracking for non-RES-E / non-HE-CHP generation?			Mandatory for all transactions	Mandatory, except undisclosed imports and purchases from power exchanges	Mandatory for long term contracts	Voluntary	Not possible	Mandatory except for undisclosed imports
A.2	Explicit tracking for RES-E and HE-CHP generation?		<i>E.g. via GOs</i>	Mandatory for RES-E and HE-CHP	Mandatory for part of RES-E and CHP	Voluntary	Not possible		
A.3	Use of standardised accounting units for explicit tracking		<i>E.g. certificates, tags</i>	Mandatory	Optional	Never			
A.3.1	Limited lifetime of accounting units			Acc.units can be used only for the calendar year of issuing	Acc.units can be used longer than the calendar year of issuing	Unlimited	Technically unlimited, but limited by regulations of tracking uses		This is the basis for creating the residual mix
A.4	Explicit tracking can be de-linked from electricity contracts?			Yes, standard	Optional	Not possible			
A.4.1	(Standard) Explicit tracking mechanism linked to balances of electricity trading?		<i>Ex post contract tracking, e.g. as in Germany</i>	Yes	Optional	No			
A.6	Use of registries for explicit tracking			Mandatory for all explicit tracking	Optional	No registry available			
A.6.1	Type of registries			Unique European registry	Unique registry per country or domain	Several parallel registries	No registry		
A.7	Use of statistical averages (implicit tracking)		<i>(Note)</i>	No default value available	Limited to certain volumes/transactions	Unlimited			
A.7.1	Limitation of total share of statistical averages within portfolio?			Unlimited	Limited to a certain share				not generally limited but generally only accepted in exceptional cases
A.7.2	Limitation of use of statistical averages for certain transactions?			Unlimited	Limitation for certain transactions				not generally limited but generally only accepted in exceptional cases
A.7.3	Type of statistical average used			European (more than UCTE)	Transmission system, e.g. UCTE	Region (several countries)	National	Sub-national	
A.7.4	Correction by attributes tracked explicitly		<i>Corrections result in a residual mix</i>	Unused certificates are collected for the residual mix and redeemed	Other forms of correction by <u>all</u> attributes being tracked explicitly	Other forms of correction by <u>part of</u> the attributes being tracked explicitly	No correction		
A.8	Handling of specific "low-information" processes		<i>Rating according to descriptors A.8.1 to A.8.5</i>	Ambitious approach	Moderate approach	Less ambitious approach			
A.8.1	Handling of imports without explicit tracking		<i>(note)</i>	use regional or national residual or production mix	Use national residual mix if available	Use European production mix	Use national production mix	Treat as "unknown origin"	
A.8.2	Handling of exports		<i>(note)</i>	Exports must be associated with explicit tracking information	Explicit tracking optional, otherwise use standard implicit tracking information	Use standard implicit tracking information	Default value different to the standard implicit tracking information	No regulation	

E-TRACK Scenarios				Scenario:	Option C	"Ambitious certificate system plus residual mix"				
List of Descriptors					13.10.2006					
No.	Descriptor			comment	State A	State B	State C	State D	State E	Explanations
A.8.2.1		Accounting of exported attributes				Exported attributes are recorded and must be deducted from exporter's attribute account	Exports of attributes are not accounted for	No regulation		
A.8.3		Handling of power exchange transactions without explicit tracking			<i>Power exchange could also set up e.g. a hydro exchange</i>	Use certificates	Use internal "exchange mix"	Use statistical average used for implicit tracking	Treat as "unknown origin"	
A.9		Measures for regional balancing of physical energy and attributes				Joint residual mix for all participating countries	Ex/Imports must be balanced (either attributes plus power or swap in attributes)	none		
B. Tracked information										
B.1		Qualification as GO			<i>Do accounting units specify whether they qualify as GO?</i>	RES and CHP	Only RES	Only CHP	No information	
B.2		Production period				Mandatory, standardised production periods	Mandatory, no standardised production periods	Optional	No information	
B.3		Issuing date of accounting unit				Mandatory	Optional	No information		
B.4		Energy sources				Detailed list of standard sources (coal, gas, nuclear etc.)	Standard clusters (e.g. nuclear, renewables, fossil&other)	No standardisation		
B.5		Qualification for high-efficiency CHP				Mandatory	Optional	No		
B.5.1		Basis for qualification of HE CHP				Based on CHP Directive	Other criteria	Not applicable		
B.6		Support				Support log, listing all relevant support	Earmark (y/n) for "major" support	No support information		
B.7		RES-E/HE-CHP target			<i>On EU level only relevant for RES-E</i>	RES and CHP	Only RES	Only CHP	No information	
B.8		Environmental indicators								
B.8.1		CO2 emissions			<i>GHG (CO2 equivalents) neglected here</i>	Plant-specific emissions recorded	Plant-specific combination of high/low emission attributes	Emissions of plant type	No CO2 information	
B.8.2		Nuclear waste				Plant-specific waste production recorded	Plant-specific combination of high/low waste production attributes	Waste production of plant type	No nuclear waste information	
B.8.3		Other			<i>SOx, NOx, dust etc.</i>	Additional enviro. indicators included	No inclusion of add. enviro. indicators			
B.8.4		Basis of environmental indicators				Full upstream process chain analysis	Standardised factors for impact of upstream process chain	Only direct emissions, no process chain analysis		

E-TRACK Scenarios		Scenario:	Option C	"Ambitious certificate system plus residual mix"				
List of Descriptors			13.10.2006					
No.	Descriptor	comment	State A	State B	State C	State D	State E	Explanations
B.9	Specific information for quality labels	<i>E.g. EUGENE eligibility and additionality info</i>	Mandatory, standardised	Optional, standardised	Optional, not standardised	No		
C. Uses of tracking								
C.1	Tracking system used for disclosure		Mandatory	Optional	No			
C.2	Tracking system used for green power market		Mandatory	Optional	No			
C.3	Tracking system and support schemes	<i>For RES-E, CHP etc.</i>						
C.3.1	Facilitation of support scheme		Support facilitated through tracking scheme	Support facilitated by a separate tracking scheme	No tracking for support			
C.3.2	Transparency about support	<i>Linked to B.6</i>	Support recorded in tracked information	No provision of support information				
C.4	Tracking system and target accounting	<i>Linked to B.7</i>	Verification of target fully based on tracking system	Tracking of target eligibility for exports and imports	No tracking of target information			
C.5	Accounting units used for several purposes?	<i>This relates to the "multi-certificate" discussion</i>	Separate accounting units for disclosure, support and target	Constraints apply to accounting units for disclosure, support and target	Single accounting unit for disclosure, support and target	Disclosure is only purpose of tracking		
D. Reliability and verification measures								
D.1	Independent verification of tracking results		Mandatory for all participants	Selective verification by the regulator	Verification on voluntary basis only			
D.2	Redemption of accounting units		Mandatory for all uses	Mandatory for disclosure only	No requirements			