



QA/QC AND VERIFICATION OPERATIONS AT THE FACILITY LEVEL AND ACCREDITATION OF THIRD PARTY AUDITORS

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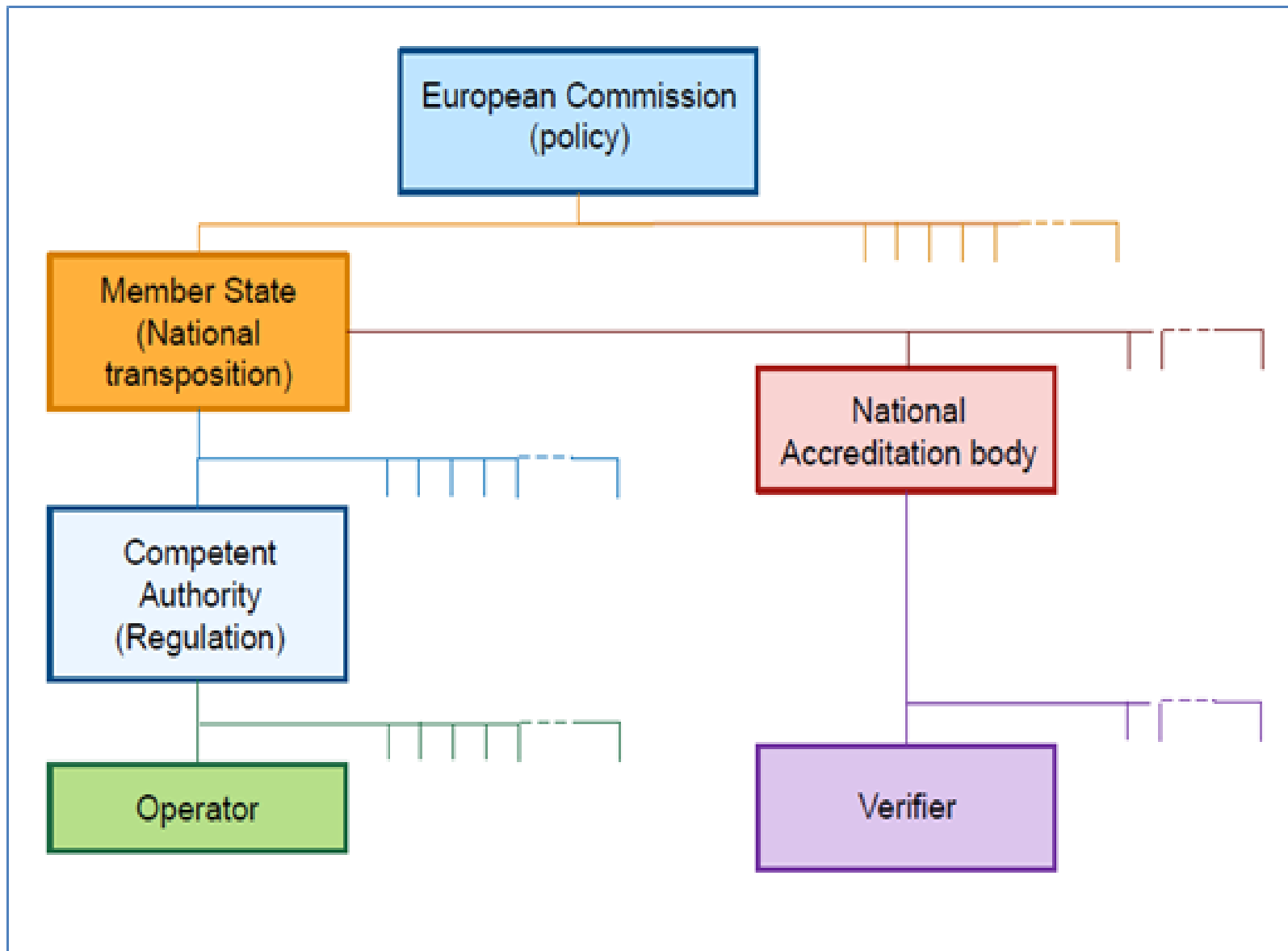
3RD REGIONAL MRV TECHNICAL TRAINING

IZMIR, TURKEY

SEPTEMBER 17 – 19, 2014

- ◆ EU ETS
- ◆ GHG Protocol
- ◆ IPCC
- ◆ India Perform, Achieve Trade
- ◆ UK Climate Change Agreements
- ◆ Comparative summary

- ◆ Harmonised Accreditation and Verification requirement (Phase 3)
 - Based on earlier phase practices
 - Accreditation based on ISO14065
 - EA¹ overseas at EU level – peer evaluation
 - National Accreditation Body oversees process
 - Reaccreditation required (at least every 5y)
 - Accreditation at verifier company level
 - Accreditation in one MS counts for others



- ◆ A&V regulation covers structure of verification itself
 - Verification against approved monitoring plan
 - Site visits required with limited exceptions (must be justified and approved by CA)
 - Materiality thresholds
 - 5% total emissions for Categories A and B
 - 2% total emissions for Category C

- ◆ Emphasis on QA through quality management system (QMS) + verification
- ◆ Underpinning GHG Protocol accounting principles are aimed at ensuring quality
- ◆ QMS covers the institutional, managerial and technical aspects for following:
 - Methods and data
 - Processes and systems
 - Documentation

- ◆ QMS Implementation covers, inter alia:
 - Quality control team, responsibilities, capabilities
 - Quality management plan
 - Generic quality checks (date, processes, calculations)
 - Source specific quality checks

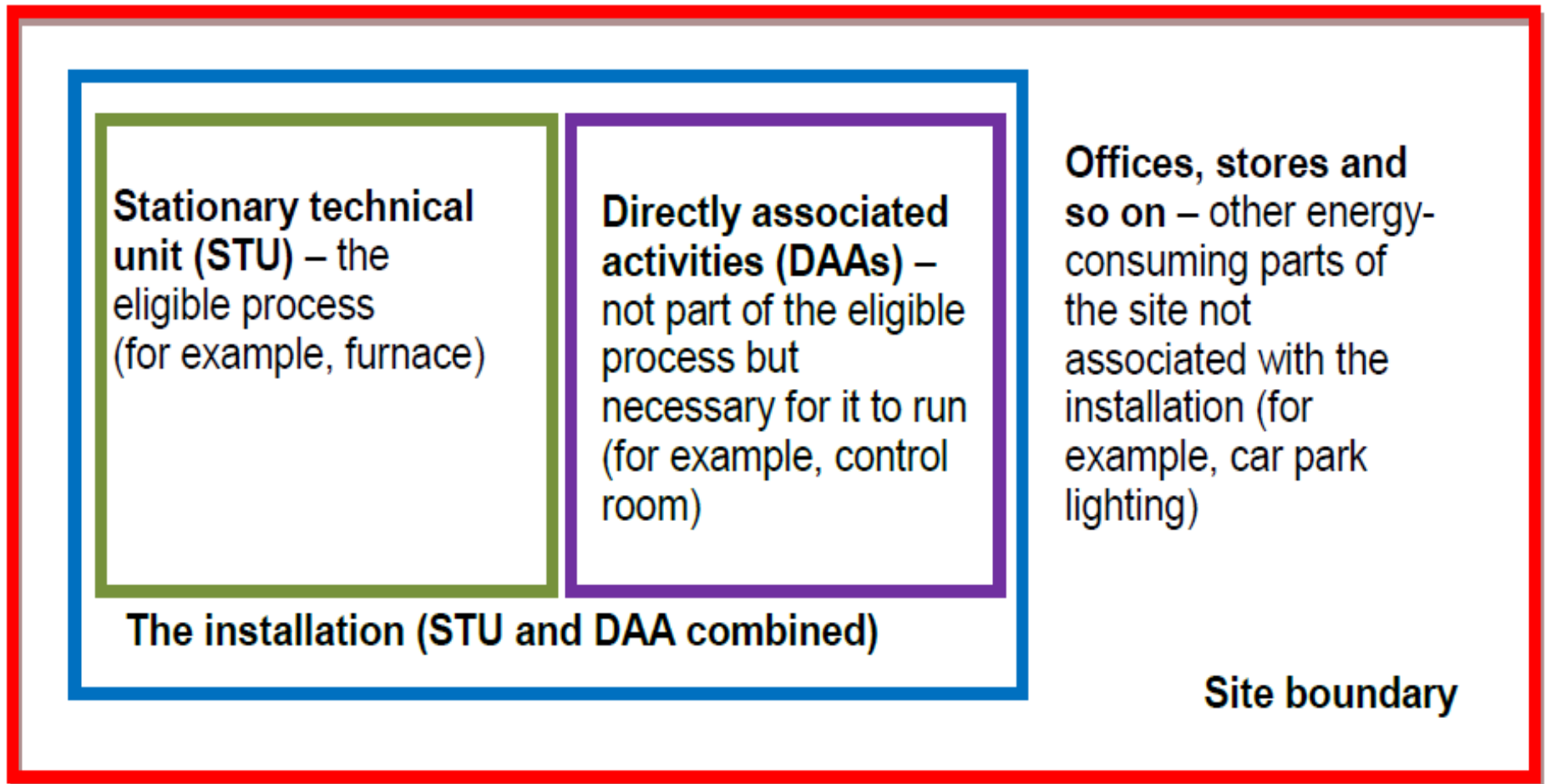
- ◆ Internal or external verification
- ◆ Emphasis on risk based approach
- ◆ Important use of the concept of materiality
 - Information that would have a material impact on decisions or affect the meaning of a statement)
 - Rule of thumb errors of 5% total inventory would be materially misleading

- ◆ Site visits to assure the completeness, accuracy and reliability of reported information. Selection factors include:
 - Nature of operations at site
 - Complexity of data collection and calculations
 - Significant in terms of inventory size
 - Risk of material misstatement
 - Staff competencies
 - Past reviews/verifications

- ◆ Extensive QA/QC guidance
 - ◆ Emphasis on both management systems and data
 - Identification of relevant standards
 - Category specific guidance
 - ◆ Role of Peer Review and audit
 - ◆ Verification approaches
 - Independence/alternative methodologies
 - Comparison with measurements
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- ◆ Market-based mechanism for large energy intensive industries
 - Intensity targets for energy consumption
 - System regulated by Bureau of Energy Efficiency (BEE)
 - Regulator evaluates compliance submissions made by enterprises
 - Enterprises must commission third party audit
 - Third party auditors must be accredited by the regulator

- ◆ Voluntary agreements between industry and government: implemented in 2000
 - Cover 54 sectors with about 9,000 sites ~ 60% of UK industrial delivered energy use
 - Targets to increase energy efficiency or reduce carbon dioxide emissions:
 - If targets met, participants receive a substantial discount on energy tax
 - If targets not met, participant pays buyout for the excess carbon emissions



Source: CCA Operations Manual

- ◆ Additional rules:
 - 70:30 inclusion rule
 - Exclusion of EU ETS energy

- ◆ Web-based register administered by the Environment Agency (the EA)
 - ◆ Operators report performance every two years via sector associations
 - ◆ Independent facility audits by contractors appointed by the EA
 - Risk-based
 - Random basis
 - ◆ No accreditation requirements for auditors
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High level comparison - verification

Aspect	EU ETS	GHG Protocol - Corporate	IPCC Tier 3	PAT	CCAs
Type of verification	Third party	Internal or third party	Independent	Third party	Regulator
Mandatory vs voluntary	Mandatory	Voluntary	Not prescriptive	Mandatory	Mandatory if selected
Verification selection / coverage	All installations all years	n/a - voluntary	Guidance allows sampling	All installations	Risk and random selection
Verifier / auditor accreditation	Yes – National Accreditation body	No, but verifier selection guidance	No, but ISO standards identified, qualifications for Peer Reviewers	Yes – Bureau of Energy Efficiency	No

Aspect	EU ETS	GHG Protocol - Corporate	IPCC Tier 3
Basis for verification	<ul style="list-style-type: none"> • Verification against requirements of A&V Regulation • Verification in accordance with installation monitoring plan 	<ul style="list-style-type: none"> • Verification in line with guidance • Emphasis on quality management process not just data 	<ul style="list-style-type: none"> • Verification in line with guidance • Emphasis on quality management process not just data
Site visits (similar factors in bold)	Mandatory unless justified/approved under simplified verification rules: <u>risk analysis</u> / remote data / <u>recent site visit</u> against same plan	Guidelines covering: <u>risk of misstatement</u> / complexity / size and nature of installation / <u>past reviews or verifications</u>	Engagement with site staff regarding site specific factors covered by guidance

Detailed comparison - verification

Aspect	EU ETS	GHG Protocol - Corporate	IPCC Tier 3
Materiality	Mandatory <ul style="list-style-type: none">• 5% Cat A/B• 2% Cat C	Rule of thumb 5% Lower threshold if significant	Process highlights errors. Inventory team to correct

Thank You

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FOR MORE INFORMATION ON THE PARTNERSHIP FOR MARKET READINESS

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