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CROSS CUTTING ISSUES TECHNICAL WORKING GROUP GHG REPORTING DESIGN OPTIONS MATRIX

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FOR REFERENCE:

WRI/WBCSD *GHG* PROTOCOL'S

PRINCIPLES FOR GHG ACCOUNTING AND REPORTING:

1. RELEVANCE
2. COMPLETENESS
3. CONSISTENCY
4. TRANSPARENCY
5. ACCURACY
6. ENABLE OTHER GOALS

POTENTIAL GOALS OF GHG REPORTING:

1. IDENTIFYING REDUCTION OPPORTUNITIES
2. REDUCING RISKS (E.G., START LEARNING CURVE)
3. TRACKING GHG EMISSIONS, ASSISTING THE STATE IN CONSTRUCTING ANNUAL INVENTORIES
4. PARTICIPATING IN VOLUNTARY PROGRAMS
5. PARTICIPATING IN – OR PREPARING FOR – MANDATORY PROGRAMS
6. PRECURSOR FOR REGISTRY PARTICIPATION
7. OPPORTUNITIES FOR RECOGNITION
8. PUBLIC REPORTING
9. CONSISTENCY WITH OTHER PROGRAMS
10. OTHERS?

	DESIGN ELEMENT	OPTIONS	DESIGN CONSIDERATIONS	PRELIMINARY RECOMMENDATION
1.	TYPE OF PROGRAM	<ul style="list-style-type: none"> • VOLUNTARY • MANDATORY 	<ul style="list-style-type: none"> • MAY NEED OR WANT TO CONSTRAIN SECTORS AND/OR SOURCES (E.G., APPLICABILITY). • MANDATORY GHG REPORTING FOR MAJOR SOURCES IS IN PLACE IN SOME STATES (ME, CT, NJ) AND ANTICIPATED SOON FOR SEVERAL OTHERS IN NORTHEAST AND FAR WEST. 	<ul style="list-style-type: none"> • <u>MANDATORY, ONCE (A) STANDARD QUANTIFICATION PROTOCOLS & TOOLS ARE AVAILABLE FOR A SECTOR (TO AVOID DIFFERING PROTOCOLS OVER MULTIPLE JURISDICTIONS); AND (B) RESPONSIBLE PARTIES ARE CLEAR (E.G., RESIDENTIAL/COMMERCIAL, TRANSPORTATION).</u> • <u>“PHASE IN” MANDATORY REPORTING BY SECTOR, BUT ALLOW VOLUNTARY REPORTING BY OTHER SECTORS & SOURCES UNTIL THEY ARE REQUIRED TO REPORT.</u> • <u>THE STATE MAY ALSO REGISTER GHG REDUCTIONS FROM PROGRAMS.</u>
2.	SECTORS	<ul style="list-style-type: none"> • ALL SECTORS ELIGIBLE • LIMITED TO CERTAIN SECTORS 	<ul style="list-style-type: none"> • PARTICIPATION MAY BE LIMITED BY AVAILABILITY OF QUANTIFICATION METHODS; MAY NEED TO “STAGE” SECTOR PARTICIPATION. • WRI CALCULATION PROTOCOLS: STATIONARY COMBUSTION, MOBILE, ELECTRIC POWER, CEMENT, IRON & STEEL, ALUMINUM, PULP & PAPER, WOOD PRODUCTS, LIME, AMMONIA, PURCHASED HEAT OR POWER, OTHERS. 	<ul style="list-style-type: none"> • <u>INCLUDE ALL SECTORS, BUT ONLY AS QUANTIFICATION PROTOCOLS AND DATA AVAILABILITY ENABLES EQUALLY RIGOROUS TREATMENT ACROSS SECTORS (TO PROVIDE CONSISTENCY WHEN ULTIMATELY LINKED TO A REGISTRY).</u> • <u>PHASE IN SECTORS AS QUANTIFICATION PROTOCOLS AND DATA BECOME AVAILABLE.</u>

	DESIGN ELEMENT	OPTIONS	DESIGN CONSIDERATIONS	PRELIMINARY RECOMMENDATION
3.	SOURCES	<ul style="list-style-type: none"> • ALL • STATIONARY COMBUSTION EMISSIONS • MOBILE COMBUSTION EMISSIONS • PROCESS EMISSIONS • FUGITIVE EMISSIONS 	<ul style="list-style-type: none"> • COULD LIMIT SOURCES EVEN WITHIN SECTORS, (E.G., VIA TYPES, SIZE THRESHOLDS, ETC.). • BROADER ARRAY PROMOTES INVENTORY BUILDING, PUBLIC INFORMATION, IDENTIFICATION OF GHG STRATEGIES, ETC. 	<ul style="list-style-type: none"> • REPORTING SHOULD BE OPEN TO <u>ALL SOURCES</u>. • AS WITH SECTORS, “<u>PHASE IN</u>” MANDATORY REPORTING BASED ON AVAILABILITY OF: (A) STANDARD QUANTIFICATION PROTOCOLS; AND (B) ADEQUATE BASE DATA (E.G., FOR DIFFERENT FUELS, ETC.) FOR SPECIFIC SOURCE TYPES. • FOR MANDATORY SOURCES, USE <u>COMMON SENSE</u> REGARDING DIMINISHING RETURNS (E.G., DE MINIMIS EMISSIONS, CUTPOINTS, ETC.).
4.	ORGANIZATIONAL BOUNDARY	<ul style="list-style-type: none"> • ENTITY-WIDE (E.G., CORPORATION-WIDE) • FACILITY • EMISSIONS UNIT OR SOURCE POINT • OTHER (?) 	<ul style="list-style-type: none"> • CLEAR DEFINITIONS NEEDED TO AVOID DOUBLE COUNTING WHERE SHARED OWNERSHIP EXISTS. • SHOULD STRIVE TO HAVE DESIGN BE CONSISTENT WITH POSSIBLE FUTURE DIRECTIONS (E.G., MANDATORY REPORTING WOULD NOT BE ENFORCEABLE ABOVE THE FACILITY LEVEL). • COMBINATIONS ARE POSSIBLE (E.G., FINER RESOLUTION AGGREGATED TO A GREATER WHOLE). 	<ul style="list-style-type: none"> • REPORTING GOAL: “<u>ORGANIZATION-WIDE EMISSIONS WITHIN AZ</u>” WITH GREATEST POSSIBLE “<u>GRANULARITY</u>” TO FACILITATE BASELINE PROTECTION. • THIS GENERALLY EQUATES TO EMISSIONS FROM IN-STATE FACILITIES, BUT NOT ALL SOURCES MAY BE “FACILITIES.” • “ROLLED UP” TOTAL OF “FACILITY” & “FIELD” EMISSIONS REPORTS IN A REPORTING DATABASE WOULD PROVIDE TOTAL “<u>ORGANIZATION-WIDE EMISSIONS IN NM.</u>”

	DESIGN ELEMENT	OPTIONS	DESIGN CONSIDERATIONS	PRELIMINARY RECOMMENDATION
5.	REPORTING PERIOD	<ul style="list-style-type: none"> ANNUAL CALENDAR FISCAL OTHER 	<ul style="list-style-type: none"> SHOULD STRIVE FOR CONSISTENCY WITH OTHER REPORTING PROGRAMS. 	<ul style="list-style-type: none"> <u>ANNUAL EMISSIONS ON A CALENDAR YEAR BASIS.</u>
6.	GREENHOUSE GASES INCLUDED	<ul style="list-style-type: none"> SIX "KYOTO GASES" (CO₂, HFCs, CH₄, N₂O, PFCs, SF₆) OTHER 	<ul style="list-style-type: none"> SHOULD STRIVE FOR CONSISTENCY WITH OTHER REPORTING PROGRAMS. BROADER ARRAY PROMOTES INVENTORY BUILDING, PUBLIC INFORMATION, IDENTIFICATION OF GHG STRATEGIES, ETC. 	<ul style="list-style-type: none"> <u>INCLUDE ALL SIX "KYOTO GASES" (EMITTED ABOVE DE MINIMIS LEVELS)</u> <u>INCLUDE, OR PROVIDE A PLACEHOLDER FOR, REPORTING BLACK CARBON EMISSIONS AS WELL.</u>
7.	SCOPE OF EMISSIONS COVERED	<ul style="list-style-type: none"> DIRECT "SCOPE 1" INDIRECT "SCOPE 2" - INDIRECT FROM PURCHASED HEAT & ELECTRICITY "SCOPE 3" - OTHER INDIRECT (E.G., OUTSOURCED ACTIVITIES, EMPLOYEE TRAVEL, ETC.) BOTH 	<ul style="list-style-type: none"> MAY NEED OR WANT TO "STAGE" COVERAGE (E.G., START SMALL & EXPAND). DIRECT EMISSIONS ARE MOST LIKE CURRENT REPORTING REQUIREMENTS, BUT MAY OMIT GHG REDUCTION OPPORTUNITIES OR ENCOURAGE DIRECT-INDIRECT TRADE-OFFS. FOR MANY ENTITIES, MOST GHG EMISSIONS ARE FROM INDIRECT EMISSIONS SOURCES. 	<ul style="list-style-type: none"> <u>GOAL: GREATEST DETAIL AND GREATEST CONSISTENCY, APPLIED WITH COMMON SENSE (E.G., TO EMISSIONS ABOVE DE MINIMIS LEVELS).</u> <u>REQUIRE REPORTING OF DIRECT "SCOPE 1" EMISSIONS ASAP.</u> <u>"PHASE IN" REQUIRED REPORTING OF INDIRECT "SCOPE 2" EMISSIONS, BUT REPORT THEM SEPARATELY FOR GREATER TRANSPARENCY.</u> <u>ALLOW VOLUNTARY REPORTING OF "SCOPE 3" VOLUNTARY; PHASE IT IN IF/WHEN SIMILARLY RIGOROUS PROTOCOLS EXIST.</u>

	DESIGN ELEMENT	OPTIONS	DESIGN CONSIDERATIONS	PRELIMINARY RECOMMENDATION
8.	EMISSIONS QUANTIFICATION & MONITORING	<ul style="list-style-type: none"> CALCULATION METHODS & TOOLS DIRECT MEASUREMENT (E.G., CEMS, STACK TESTING) 	<ul style="list-style-type: none"> SHOULD STRIVE TO USE CURRENT BEST PRACTICE METHODS, SUCH AS <i>GHG PROTOCOL</i> CALCULATION TOOLS, AND TO HAVE CONSISTENCY WITH OTHER REPORTING PROGRAMS. SOME “OTHER” OR “HOME GROWN” APPROACHES MAY BE NECESSARY (E.G., FLASHING EMISSIONS; IPIECA, API’S SANGEA). 	<ul style="list-style-type: none"> DEVELOP A “<u>HIERARCHY OF CONSISTENCY</u>,” WHEREBY QUANTIFICATION PROTOCOLS ARE APPLIED IN A PRIORITY ORDER (E.G., EPA, IPCC, WRI/WBCSD, IPIECA/API, ETC.). MAXIMIZE <u>CONSISTENCY WITH EXISTING REPORTING REQUIREMENTS</u> (E.G., CO₂ REPORTING FOR ACID RAIN SOURCES SHOULD ECHO CURRENT CO₂ REPORTING TO EPA).
9.	VERIFICATION	<ul style="list-style-type: none"> STATE VERIFICATION 3RD PARTY VERIFICATION SELF-CERTIFICATION 	<ul style="list-style-type: none"> IF MANDATORY, THE STATE MAY BE ABLE TO USE CURRENT VERIFICATION PROCEDURES FOR CRITERIA POLLUTANTS. CCAR DOES 3RD PARTY VERIFICATION. 	<ul style="list-style-type: none"> FOR REPORTING, ALLOW “<u>SELF-CERTIFICATION</u>,” AND HAVE ADEQ DO <u>SPOT INSPECTIONS</u>. FOR ULTIMATE REGISTRY PURPOSES, HAVE 3RD-PARTY VERIFICATION.
10.	PUBLIC ACCESS & REPORTS	<ul style="list-style-type: none"> INTERNET ACCESS AND/OR ONLINE REPORTS PAPER REPORTS BOTH 	<ul style="list-style-type: none"> “CONFIDENTIAL BUSINESS INFORMATION” (CBI) CONCERNS 	<ul style="list-style-type: none"> ALLOW SOURCES TO <u>REPORT GHG EMISSIONS ELECTRONICALLY</u>. PROVIDE ELECTRONIC PUBLIC ACCESS TO GHG EMISSIONS REPORTING DATA THAT IS “ROLLED UP” TO A LEVEL SUCH THAT CBI IS REASONABLY PROTECTED.

	DESIGN ELEMENT	OPTIONS	DESIGN CONSIDERATIONS	PRELIMINARY RECOMMENDATION
11.	PROJECT LEVEL REPORTING OR "OFFSETS"	<ul style="list-style-type: none"> • YES/NO • CONSTRAIN 	<ul style="list-style-type: none"> • WRI: RAISES QUANTIFICATION, BASELINE, "ADDITIONALITY," SECONDARY EFFECTS, REVERSIBILITY, AND DOUBLE-COUNTING ISSUES. • LOCATION OF CO-BENEFITS ACHIEVED. • MAY BE MOST USEFUL WHEN THERE IS AN EXTERNALLY-IMPOSED CONSTRAINT (E.G., A "CAP"). 	<ul style="list-style-type: none"> • PRIMARILY USEFUL AS A REGISTRY FUNCTION. • NEEDS ACCEPTED PROJECT-BASED QUANTIFICATION TOOLS & PROTOCOLS (NOW STARTING TO ARRIVE, E.G., WRI/WBCSD). • ALLOW FOR VOLUNTARY REPORTING OF PROPERLY QUANTIFIED MITIGATION PROJECTS.
12.	OTHER(?)	•	•	•