



An Inefficient and Costly Patchwork of GHG Reporting

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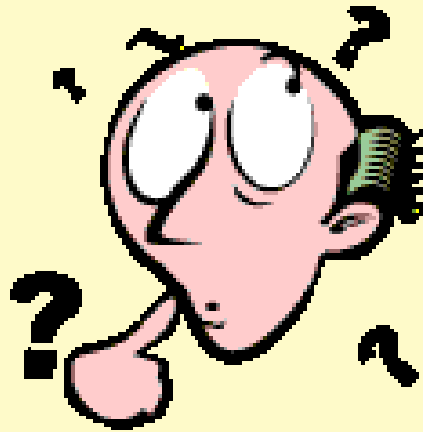


GHG Mandatory Reporting

California
AB 32

EPA MRR

EO 13514





Overview

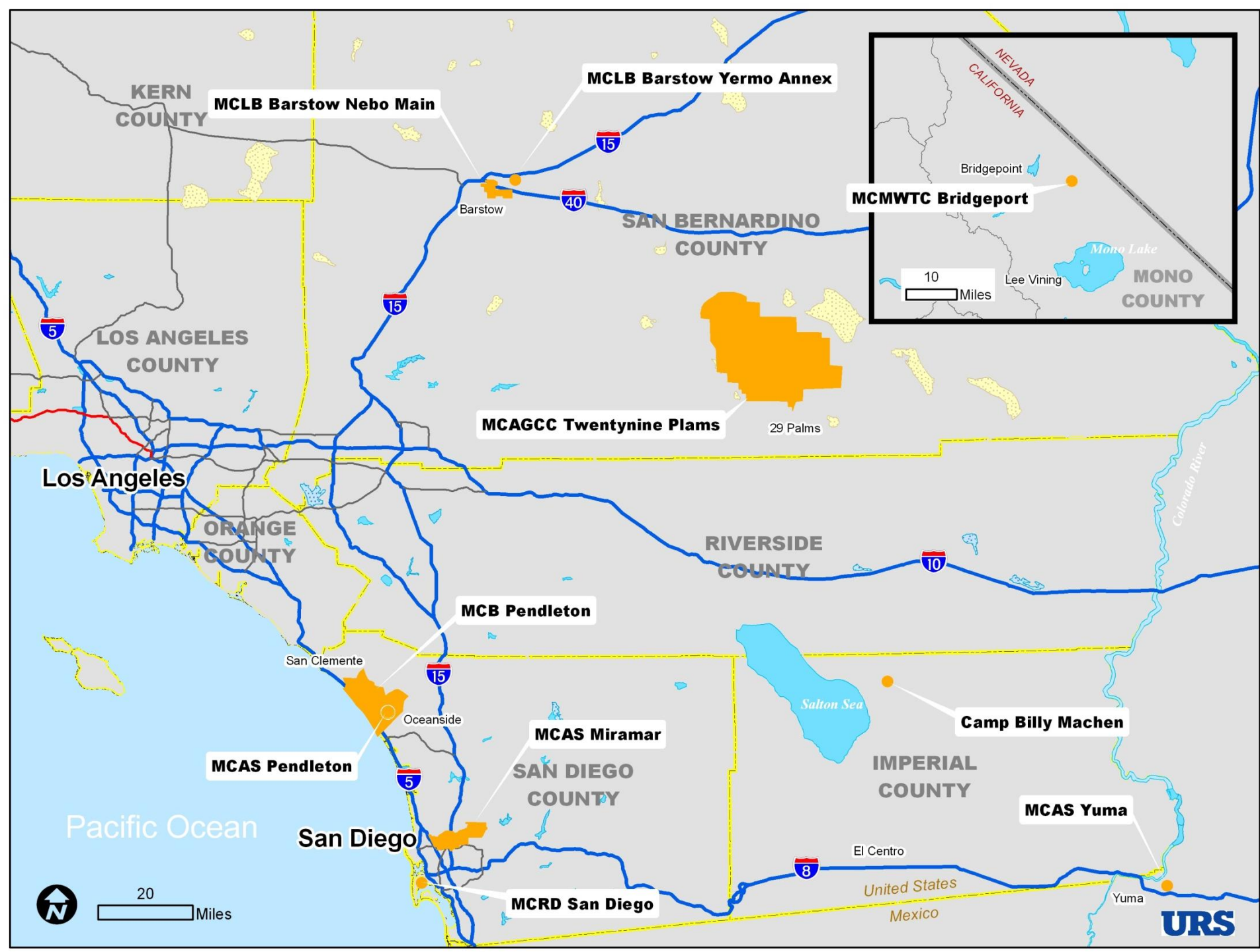
- Two case studies
- Substantial differences in numerous mandatory greenhouse gas reporting programs
- Data collection and management challenges are significant
- Little consistency between reporting programs and tools.
- Multiple reporting mechanisms do not provide benefits which are commensurate with the level of effort.



Case Study #1

Marine Corps Installations West:

- Eight bases in CA and AZ
- Subject to AB32, EPA MRR and EO 13514
- Large variety of operations and sources
- Project started in 2007



KERN COUNTY

MCLB Barstow Nebo Main

MCLB Barstow Yermo Annex

MCMWTC Bridgepoint

MCAGCC Twentynine Plams

MCB Pendleton

MCAS Pendleton

MCAS Miramar

Camp Billy Machen

IMPERIAL COUNTY

MCAS Yuma

MCRD San Diego

URS



Technical Approach

Strategy for GHG Reporting:

- Evaluate all sources during initial GHG inventory
- Fenceline-to-fenceline assessment
- Regulations and reporting rqmts are still evolving
- Tackle each report deadline chronologically
- Only report data required by each agency



Deadlines and Reporting Mechanisms

| Reporting Scheme | Initial Deadline | Reporting Period | Reporting Mechanism |
|------------------|------------------|------------------|---------------------------|
| AB 32 | 4-1-09 | CY | Online GHG Reporting Tool |
| EO 13514 | 1-31-11 | FY | FEMP Workbook |
| EPA MRR | 3-31-11 | CY | e-GRRT (online) |



Categories of Data Reported

| Reporting Scheme | Scope 1 | Scope 2 | Scope 3 |
|------------------|---------|---------|---------|
| EPA MRR | Yes | | |
| AB32 | Yes | Yes | |
| EO 13514 | Yes | Yes | Yes |



New Requirements on the Horizon

- CARB's Executive Board voted on 12-16-10 to expand AB32 in order to:
- "Harmonize" with WCI requirements in preparation for cap-and-trade
 - Add five new industrial and four upstream supplier source categories
 - Lower threshold from 25,000 to 10,000 MT CO₂e
 - Change reporting and verification deadlines
 - Expanded data collection begins on 1-11-11



New Requirements on the Horizon (con't)

CEQ indicates that the following GHG emissions will be captured in the future for EO 13514:

- Operations associated with leased space
- Supply chains
- Production of fuels (i.e., lifecycle emissions)
- Carbon fluxes and biological sequestration
- Enteric fermentation & manure management
- Composting





Comparison of Reporting Protocols

| Issue | EPA | AB32 | EO 13514 |
|---------------------|--------------|---|--------------|
| Primary Schools | Not exempted | Exempted | Not exempted |
| Hospitals | Not exempted | Exempted | Not exempted |
| R&D Activities | Exempt | No specific exclusion | Not exempted |
| De Minimus Category | None | < 3% of emissions & < 20,000 MT CO ₂ e | None |



Comparison of Requirements

| Issue | EPA | AB32 | EO 13514 |
|-------------------------------|-------------------------|-------------------------|----------------------------------|
| Internal Audit | No requirement | Procedures Required | Optional as part of verification |
| Certificate of Representation | Required | Required | Required |
| Verification | EPA staff | 3 rd party | Three options |
| Written QAPP | GHG Inventory Mgmt Plan | GHG Monitoring Plan | GHG Inventory Mgmt Plan |
| Biogenic emissions | Optional – can include | Include but must denote | Include but must denote |



Comparison of Requirements (con't)

| Issue | EPA | AB32 | EO 13514 |
|---------------------------|-------------------------|---|---------------------------|
| Abbreviated Report | Allowed in 2010 for GSC | Certain facilities with <25,000 MT CO ₂ e | Not allowed |
| Upstream Fuel Suppliers | Must report | Exempt | Future reporting category |
| Missing Data Computations | Specified by EPA | Specified by CARB | No requirements |
| Reporting Deadlines | March 31 st | Apr 1 st / June 1 st * (proposed: March 31 st) | Jan 31 st |

* CARB has proposed significant changes in its rules to be effective 1-1-11.



Comparison of Requirements (con't)

| Issue | EPA | AB32 | EO 13514 |
|-------------------------|---|---|--|
| Cogen Facilities | Threshold is 25,000 MT CO ₂ e | 2,500 MT CO ₂ * (proposed: eliminate this category) | No threshold |
| Threshold Determination | CO ₂ e | Only CO ₂ | None |
| Landfills | Active above a certain size and used after 1980 | Regulated under landfill gas capture and control rule, not MRR | Include all landfills regardless of status |

* CARB has proposed significant changes in its rules to be effective 1-1-11.



Comparison of Requirements (con't)

| Issue | EPA | AB32 | EO 13514 |
|---|----------|----------|-------------|
| Functional Breakout for Military Facilities | Allowed | Allowed | Not Allowed |
| Mission-Critical Equipment | Excluded | Excluded | Excluded |
| Portable Equipment | Excluded | Excluded | Included |
| Mobile Sources | Excluded | Excluded | Included |



Case Study #2

A Large Petrochemical Company Reports under:

- AB32 for California facilities
- EPA MRR nationwide
- SCAQMD (for Los Angeles facilities)
- Voluntary programs
 - TCR
 - CCAR



Another Example of Stove Piping

South Coast Air Quality Management District

- Already collects emission inventory data using AER-Web
- Can calculate many GHG emissions
- Not compatible with CARB's webtool
- 4th instance of reporting stove pipe !!!!!





Proposed Solution

The benefits of one national GHG reporting tool:

- Enter data once per year
- Standardized exemptions, definitions and emission factors
- Data could be sliced and diced per each agency
- Avoids year-round cycle of calculations, reporting and verification
- Huge reduction in labor and costs !!



Challenges of a National GHG Reporting Tool

- Concessions are likely needed by some agencies to standardize requirements
- Resistance of sub-national programs to possible pre-emption
- Complicated project to undertake
- Several years required to design and implement such a tool



Thank You

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