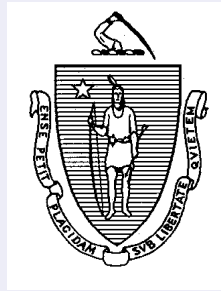


COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**



Greenhouse Gas Emissions  
Reporting Regulations  
Stakeholder Meeting  
January 22, 2008

# Agenda

9:30-9:45	Introductions and Background
9:45-10:00	Updates and Process
10:00-10:15	MassDEP Commissioner, Laurie Burt
10:00-11:45	Discussion of Issues
11:45-12:00	Next Steps

# The Global Warming Solutions Act (GWSA)

- Signed by Governor Patrick on August 7, 2008.
- Sets in motion a process to reduce greenhouse gas (GHG) emissions in MA by:
  - 10-25% by 2020
  - 80% by 2050
- Requires mandatory reporting of GHG emissions
  - Regulations must be adopted by January 1, 2009.
  - Provisions for voluntary reporting and reporting by electricity sellers must be in place by July 1, 2009.

Full text of the GWSA can be found at:

<http://www.mass.gov/legis/laws/seslaw08/sl080298.htm>

# GHG Emission Reporting Purposes

- “What is measured, can be reduced”
- Measure progress to 2020 & 2050 Goals
- Target programs to reduce emissions where greatest reductions can happen
- Identify successful strategies

# Emergency GHG Reporting Regulations

- 310 CMR 7.71, Effective December 29, 2008.
- Covers Facilities that emit 5,000+ tons per year, or report pursuant to 310 CMR 7.00: Appendix C.
- Covers direct emissions (including motor vehicles) for 5,000+ tons per year sources.
- Report 2009 CO<sub>2</sub> emissions by April 15, 2010; other GHGs in future years.
- Report electronically to a regional registry.
- Use The Climate Registry's General Reporting Protocol.

# Registration

- Registration is a one-time requirement to submit a form to MassDEP by April 15, 2009 based on 2008 emissions of:
  - direct stack emissions only (no motor vehicles)
  - fossil fuels combustion only (no biomass)
  - CO<sub>2</sub> only
- The form will require reporting of fuel quantities, emission factors, total emissions, and information about methodology and data sources.





**Massachusetts Department of Environmental Protection**  
 Bureau of Waste Prevention – Climate Strategies  
**Greenhouse Gas Emissions Registration**

2008  
 Calendar Year  
 Facility AQ Identification Number

**C. Fuel Use & Emissions**

Type of Fossil Fuel	Amount of Fossil Fuel Used	Unit of Measure for This Fuel	Emission Factor (EF)	EF Reference (TCR, AP-42, IPCC, etc)	Short Tons of CO <sub>2</sub>
Natural Gas					
Liquefied Petroleum Gas (LPG)					
Propane					
Diesel Fuel (No. 1, 2, & 4)					
Residual Fuel Oil (No. 5 & No. 6)					
Bituminous Coal					
Other Fossil Fuel 1: Describe:					
Other Fossil Fuels (From Attachment)					
Total CO <sub>2</sub> (Short Tons)=					

**D. Certification**

"I hereby certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and, that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information."

This statement is signed under the pains and penalties of perjury.

Signature of Responsible Official  
 \_\_\_\_\_  
 a. Print First Name  
 \_\_\_\_\_  
 b. Print Last Name  
 \_\_\_\_\_  
 c. Title  
 \_\_\_\_\_  
 d. Phone Number  
 \_\_\_\_\_  
 e. Email Address  
 \_\_\_\_\_  
 f. Date (MM/DD/YYYY)  
 \_\_\_\_\_

SUBMIT THIS FORM NO LATER THAN APRIL 15, 2009, TO:

MassDEP / BWP  
 Climate Strategies  
 6th Floor  
 One Winter Street  
 Boston, MA 02108

# Registration Form



# What Should I Be Doing Now?

- Estimate 2008 direct stack emissions from burning fossil fuels, and register by April 15, 2009 if necessary.
- Prepare to report future emissions:
  - Become familiar with the General Reporting Protocol.
  - Prepare to collect and retain information and records needed to calculate and document emissions.

# Comprehensive Regulation

- Anticipate promulgation in June 2009 as amendments to 310 CMR 7.71.
- Will address additional statutory requirements, including:
  - verification
  - voluntary reporting
  - electricity sellers
- Comments on all provisions of the emergency regulation will be considered.

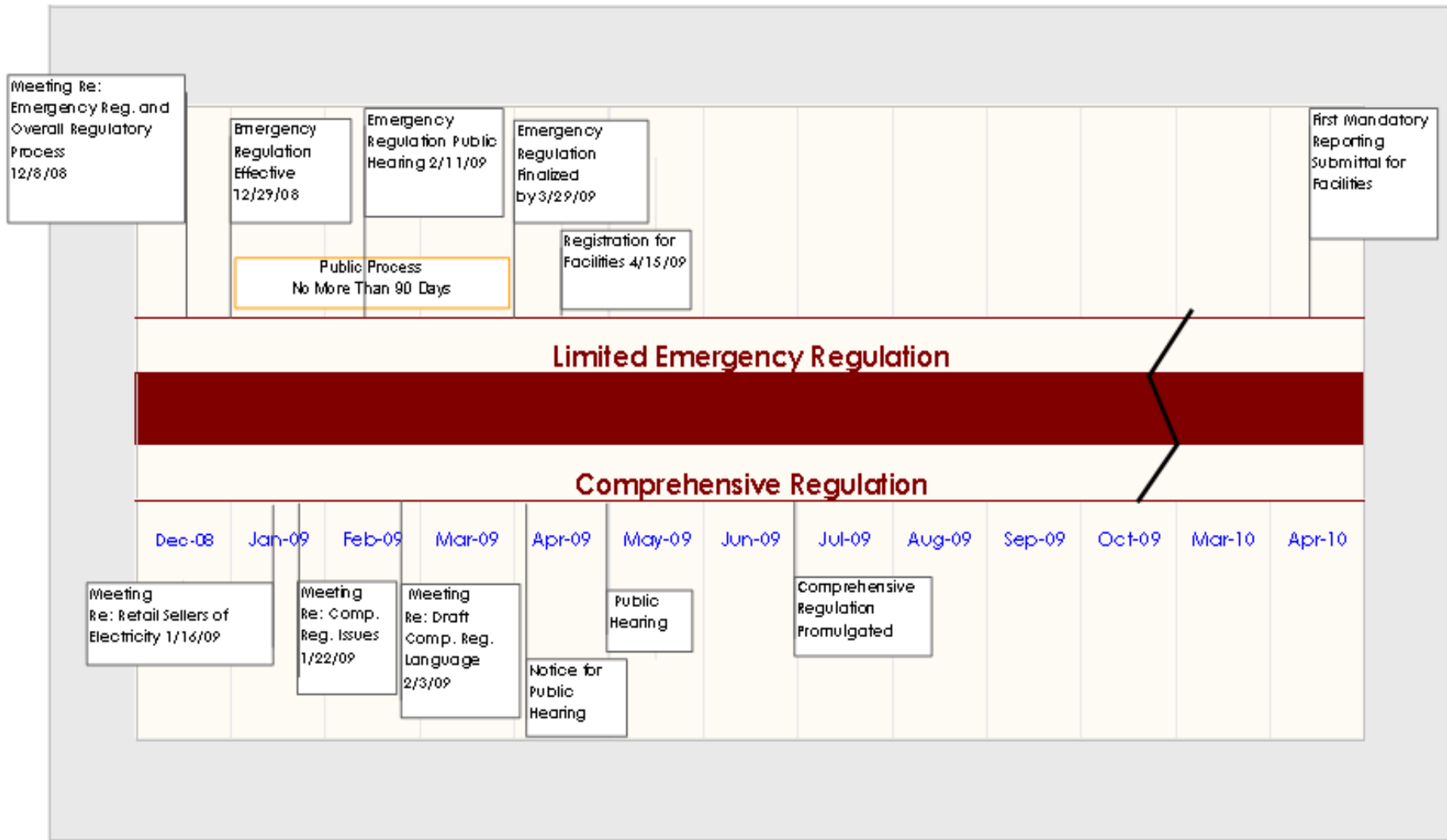
# Electricity Sellers

- GWSA: “Retail sellers of electricity” must report “greenhouse gas emissions from generation sources producing all electricity consumed”
- MassDEP will publish MA-specific emissions factors in tons/MWh for each reporting year.
- Issues were discussed with stakeholders on January 16<sup>th</sup>, 2009.
- Draft regulatory language will be shared with all stakeholders in February.

# Proposed Schedule

- December 2008: *Emergency regulation promulgated*
- January 2009: Stakeholder meetings
- February 2009: Stakeholder meeting to discuss draft regulatory language (2/3 at Gardner)
- February 2009: *Public comment on emergency regulation (hearing 2/11; comments by 2/23)*
- March 2009: *Emergency Regulation finalized*
- April 2009: Registration pursuant to emergency regulation
- April 2009: Public comment on amendments
- June 2009: Final amended “comprehensive” regulation
- April 2010: Report 2009 CO<sub>2</sub> emissions
- April 2011: Full implementation for 2010 emissions and future years

# Draft Promulgation Timeline



# Comprehensive Regulation Issues

- The Regional GHG Registry
- The General Reporting Protocol
- Motor Vehicles (direct emissions)
- Sector-Specific Methodologies
- Annual Applicability
- Verification
- Voluntary Reporting
- Early Action Credits
- Simplified Form for Applicability

# The Regional GHG Registry

Under GWSA, the regulations shall:

*“establish a regional greenhouse gas registry and reporting system for greenhouse gas emission sources; provided, however, that in establishing the greenhouse gas registry and reporting system, the department may collaborate with other states or a regional consortium”*

# The Regional GHG Registry

- MassDEP expects to contract with a regional registry to receive and publish GHG emissions data.
- Reporters will enter data directly into a web-based software platform.
- MassDEP participated in the development of The Climate Registry to create a registry that would promote consistency, transparency, and public confidence.

# Using the GRP: Data “Tiers”

- The General Reporting Protocol (GRP) includes three levels, or “tiers,” of reporting accuracy.
- Neither the GRP nor the emergency regulation requires the use of a specific tier.
- MassDEP’s Technical Support Document for the emergency regulation states: “MassDEP expects facilities to make their best effort to use the most accurate tier.”
- Should MassDEP require the use of “best effort,” or specify tiers for specific categories?

# Using the GRP: Data Elements

- The General Reporting Protocol (GRP) allows aggregation of emissions for an entire facility.
  - The GRP generally does not require reporting of data used to calculate emissions, such as material throughput. (e.g., CO<sub>2</sub> without fuel quantity.)
- Should MassDEP require specific data elements such as unit-level emissions or material throughput?

# Motor Vehicles

- GWSA defines “direct emissions” to include “company owned or company-leased *motor vehicles*.”
- The emergency regulation defines motor vehicles to include only vehicles “intended primarily for operation on public roadways.”
- Should MassDEP amend the motor vehicle provisions to include off-road vehicles?

# Motor Vehicles

- GWSA defines “direct emissions” to include “*company owned or company-leased* motor vehicles.”
- The emergency regulation requires reporting of emissions from vehicles that operate in “support” of, or are otherwise “assigned” to, facilities.
- Should MassDEP amend the motor vehicle provisions to clarify which vehicles must be reported by facilities?

# Sector-Specific Methodologies

- The General Reporting Protocol (GRP) does not include specific methodologies for hard-to-quantify emissions, such as methane from landfills.
- The GRP states: “If the Registry has not endorsed guidelines for quantifying emissions from a particular emissions source, you should use existing industry best practice methods . . .”

# Sector-Specific Methodologies

## ➤ Should MassDEP:

- rely on the flexibility included in TCR's protocol, or
- include regulatory language allowing for temporary sector-specific waivers of specific reporting provisions when adequate methodologies are not available?

# Annual Applicability

- Under the emergency regulation, reporting for a particular year is not required if applicability criteria are not met for that year.
- Should MassDEP amend the applicability provisions to require ongoing annual reporting once a facility has triggered applicability criteria for one year? (i.e., Should this be a “once-in-always-in” program?)
  - Advantage: Annual data from facilities that reduce emissions could support program planning.
  - Disadvantage: Facilities that reduce emissions may prefer not to report.

# Comprehensive Regulation Issues

- The Regional GHG Registry
- The General Reporting Protocol
- Motor Vehicles (direct emissions)
- Sector-Specific Methodologies
- Annual Applicability
- Verification
- Voluntary Reporting
- Early Action Credits
- Simplified Form for Applicability

# Verification

Under GWSA,

*“The department shall adopt regulations to require the reporting and **verification** of statewide greenhouse gas emissions ...”*

# Verification Option 1: Third Party Verification

- Should MassDEP require reporters to hire a third party verifier to sign off on reports?
  - MassDEP would publish a list of approved verification bodies.
  - MassDEP may require the use of TCR-approved verifiers.

# Verification Option 1: Third Party Verification

- Advantage: better data quality
  - Data could be used to support future market-based regulations, including credits.
  - Data would be more likely to be acceptable for future multi-state or federal programs.
- Disadvantage: cost
  - Greater direct cost to reporters.

# Verification Option 2: Verification by MassDEP

- Option 2a: MassDEP could implement some combination of self-certification, data checking, and auditing.
- Option 2b: MassDEP could directly provide more extensive verification.
- Verification by MassDEP would probably be less expensive for reporters, but verification costs could be recovered in compliance fees.

# Verification Option 3

- Third-party verification could be required only for:
  - Certain source categories: (for example, sources that do not report CO<sub>2</sub> emissions under RGGI.)
  - Certain data tiers: (for example, reporters that use the lowest data tiers from the GRP.)
  - Voluntary reporters.
- If not required, third-party verification could be optional for reporters that wish to increase the likelihood that data could be used in potential future credit programs.

# Voluntary Reporting

Under GWSA, the regulations shall:

*“provide for the **voluntary reporting** of emissions of greenhouse gases to the regional greenhouse gas registry by entities and facilities that are not required to submit information ...of a type and format that the regional greenhouse gas registry can accommodate”*

# Voluntary Reporting under GWSA

- Additional MA Facilities could voluntarily comply with 310 CMR 7.71.
  - Voluntary reporters would comply with all provisions of 310 CMR 7.71, and pay a fee, if applicable.
  - Voluntary data would be published in the registry with mandatory data.
  - Voluntary reporters would report on a facility basis.
- The regulation could also allow for reporting of optional data by reporters (indirect emissions from electricity consumption, 2009 emissions of other gases, motor vehicles for <5,000 ton sources, etc.).

# Early Action Credits

Under GWSA,

*“The secretary shall monitor the implementation of regulations relative to climate change and shall, every 5 years, publish a report which shall include recommendations regarding such implementation.”*

– The report shall include:

- *“whether regulations or other measures undertaken, including distribution of emissions allowances, are equitable and minimize costs and maximize the total benefits to the commonwealth and **encourage early action** to reduce greenhouse gas emissions”*
- *“whether entities that have voluntarily reduced their greenhouse gas emissions prior to the implementation of this chapter **receive appropriate credit** for early voluntary reductions...”*

# Early Action Credits

- Programs to achieve 2020 and 2050 GHG emissions goals may have an Early Action Credit (EAC) component.
- Reporting requirements could support baseline and data collection for EACs.
- Third party verification and voluntary reporting could support creation of EACs.

# Simplified Methodology for Applicability

- GWSA requires MassDEP to: “*develop a simplified estimation form to assist facilities in determining who shall report emissions.*”
- MassDEP intends to use guidance documents to meet this requirement.

# Comprehensive Regulation Issues

- The Regional GHG Registry
- The General Reporting Protocol
  - Data Tiers and Elements
- Motor Vehicles (direct emissions)
  - Expand Definition
  - Additional Clarification
- Sector-Specific Methodologies
- Annual Applicability
  - Once in, always in
- Verification Options
- Voluntary Reporting
- Early Action Credits
- Simplified Form for Applicability

# Next Steps and Future Meeting

- Comments regarding today's meeting will be accepted until 5pm Wednesday, January 28<sup>th</sup>
- A stakeholder meeting is planned for February 3<sup>rd</sup> to discuss draft regulation language.
- The comprehensive regulation is anticipated to be promulgated in June 2009.
- For More Information see:
  - MassDEP Mandatory Greenhouse Gas Reporting Website:  
<http://www.mass.gov/dep/public/hearings/ghgrmtgs.htm>
  - MassDEP Greenhouse Gases & Climate Change Website:  
<http://www.mass.gov/dep/air/climate/index.htm>

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

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# Mandatory Reporting Provisions of GWSA

## Section 2 of Chapter 21N of the GWSA

*Section 2. (a) The department shall monitor and regulate emissions of greenhouse gases with the goal of reducing those emissions. The department shall adopt regulations to require the reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with this chapter.*

*The regulations shall:*

- (1) establish a regional greenhouse gas registry and reporting system for greenhouse gas emission sources; provided, however, that in establishing the greenhouse gas registry and reporting system, the department may collaborate with other states or a regional consortium;*
- (2) annually require the owner or operator of any facility that is required to report air emissions data to the department pursuant to Title V of the federal Clean Air Act and that has stationary emissions sources that emit greenhouse gases to report annually to the regional registry direct stack emissions of greenhouse gases from such sources;*
- (3) require the owner or operator of a facility that has stationary emissions sources that emit greenhouse gases in excess of 5,000 tons of greenhouse gases per year in carbon dioxide equivalents to report annually to the regional registry direct emissions of greenhouse gases from such sources; provided, however, that the department shall develop a simplified estimation form to assist facilities in determining who shall report emissions and shall consider, on an annual basis, requiring the expansion of reporting to the regional greenhouse gas registry;*

# Mandatory Reporting Provisions of GWSA (cont.)

*The regulations shall:*

- (4) provide for the voluntary reporting of emissions of greenhouse gases to the regional greenhouse gas registry by entities and facilities that are not required to submit information pursuant to clauses (2) and (3); provided, however, that the greenhouse gas emissions reported shall be of a type and format that the regional greenhouse gas registry can accommodate;*
- (5) require reporting of greenhouse gas emissions from generation sources producing all electricity consumed, including transmission and distribution line losses from electricity generated within the commonwealth or imported from outside the commonwealth; provided, however, that this requirement shall apply to all retail sellers of electricity, including electric utilities, municipal electric departments and municipal light boards as defined in section 1 of chapter 164A;*
- (6) ensure rigorous and consistent accounting of emissions and provide reporting tools and formats to ensure collection of necessary data; and*
- (7) ensure that greenhouse gas emissions sources maintain comprehensive records of all reported greenhouse gas emissions.*