Creating A Cleaner Energy Future For the Commonwealth

Massachusetts Department of Energy Resources

COMMONWEALTH OF MASSACHUSETTS

Deval L. Patrick, Governor
Richard K. Sullivan, Jr., Secretary
Mark Sylvia, Commissioner

Biomass Energy Rulemaking Summary of Proposed Final Regulation

225 CMR 14.00
Renewable Energy Portfolio Standard (RPS) Class 1

Webinar

May 16, 2012

10:00 AM

The webinar will start in a few minutes……

Recording & Presentation

- The webinar is being recorded and will be available on our website in approximately 48 hours at: http://www.mass.gov/eea/energy-utilities-clean-tech/renewable-energy/biomass/renewable-portfolio-standard-biomass-policy.html

- The slide presentation will also be posted at the above website

- This website is also listed at end of presentation

Key Changes to the Regulation

- Eligible Forest Biomass and Forest Sustainability
- Biomass Fuel Certificates and the Biomass Certificate Registry
- Overall Efficiency Criterion
- Carbon Accounting
- Annual Compliance of Generation Units and Provisions for Under-Compliance
- Treatment of Previously Qualified Biomass Units

Eligible Woody Biomass Fuels
(and categorization for carbon accounting purposes)

THINNINGS

Forest-Derived Thinnings

- Unacceptable growing stock, managed thinnings

RESIDUES

Forest-Derived Residues

- Tops and branches from harvests
- Invasive species

Other Residues

- Forest Salvage (pests, storms – government declared event)
- Non-Forest Residues (wood industry, trimmings, land-use change)

Dedicated Energy Crops

- On previously non-forest, marginal lands

No Construction and Demolition Material

Restrictions on Removal of Forest-Derived Biomass

Eligible Biomass Removal is prescribed by the Forester in the *Eligible Forest Biomass Tonnage Report* (in Guideline) and depends on:

1) **Tons of Forest Products harvested, and**
2) **Soil Conditions, as follows:**
   - Soils within harvest site are identified by forester using USDA, NRCS soil maps.
   - Poor Soils are identified based on the following criteria:
     1) Shallow-to-bedrock;
     2) Dysic histosols (organic wetland soils, low nutrients, low pH); or
     3) Dry, nutrient-poor sandy soils

Allowable Biomass removals (as a percent of the forest products harvested) depend on Soil Conditions

Soil Restrictions (based on USDA NRCS Criteria)	Good Soils	Poor Soils
Percent of Tops and Branches of Forest Products Harvested that must be retained on site	25%	100%
Percent of Weight of Forest Products Harvested that may be removed (as Residues or Thinnings) as Eligible Biomass Woody Fuel	30%	30%

Additional Forest Sustainability criteria must be met on harvest site

- **No removals from old growth forest stands, or from steep slopes**
- **Retention/protection of forest litter, forest floor, stumps/roots**
- **No removal of naturally down woody material**
- **Retention of adequate supplies of den trees, snags for ecological needs**

- Removal limits are applied on each section of the harvest with different soil conditions. For small harvests (<50 acres) removals are based on the averaging of soil conditions present on the site.

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- Archived Soil Surveys
- Status Maps
- Official Soil Series Descriptions (OSD)
- Soil Series Extent Mapping Tool
- Soil Data Mart
- Geospatial Data Gateway
- eFOTG
- National Soil Characterization Data
- Soil Geochemistry Spatial Database
- Soil Quality
- Soil Geography
- Geospatial One Stop

The simple yet powerful way to access and use soil data.

START WSS

Welcome to Web Soil Survey (WSS)

Web Soil Survey (WSS) provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the USDA Natural Resources Conservation Service (NRCS) and provides access to the largest natural resource information system in the world. NRCS has soil maps and data available online for more than 95 percent of the nation's counties and anticipates having 100 percent in the near future. The site is updated and maintained online as the single authoritative source of soil survey information.

Four Basic Steps

1 Define.

Area of Interest (AOI)

Use the Area of Interest tab to define your area of interest.

Click to view larger image.

I Want To...

- **Start Web Soil Survey (WSS)**
- **Know the requirements for running Web Soil Survey — will Web Soil Survey work in my web browser?**
- **Know the Web Soil Survey hours of operation**
- **Find what areas of the U.S. have soil data**

Announcements/Events

- **Web Soil Survey 2.3 has been released! View description of new features.**
- **Web Soil Survey Release History**

I Want Help With...

- **Getting Started With Web Soil Survey**
- **How to use Web Soil Survey**
- **How to use Web Soil Survey Online Help**
- **Known Problems and Workarounds**

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USDA United States Department of Agriculture
Natural Resources Conservation Service

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Area of Interest (AOI) | Soil Map | Soil Data Explorer | Shopping Cart (Fr

Forester prescribes boundaries of harvest. The Soil Map page identifies the soil types for the harvest area, which are input to Guideline spreadsheets.

Search

Map Unit Legend

Hampden and Hampshire Counties, Massachusetts, Eastern Part (MA610)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
316B	Scituate fine sandy loam, 3 to 8 percent slopes, very stony	2.4	3.6%
317C	Scituate fine sandy loam, 8 to 15 percent slopes, extremely stony	28.9	43.8%
317D	Scituate fine sandy loam, 15 to 25 percent slopes, extremely stony	14.3	21.6%
421B	Canton fine sandy loam, 3 to 8 percent slopes, very stony	20.5	31.0%
Totals for Area of Interest		**66.0**	**100.0%**

Legend

Soil Map

Warning: Soil Map may not be valid at this scale.

You have zoomed in beyond the scale at which the soil map for this area is intended to be used. Mapping of soils is done at a particular scale. The soil surveys that comprise your AOI were mapped at 1:25,000. The design of map units and the level of detail shown in the resulting soil map are dependent on that map scale.

Done

Internet 100%

Massachusetts Executive Office of Energy and Environmental Affairs
Department of Energy Resources
Renewable Energy Portfolio Standard - 225 CMR 14.00

Forest Derived Eligible Biomass Woody Fuel Guideline

CONTENTS (WORKSHEETS)

Biomass Restrictions (DOER Guideline)
Provides DOER requirements and restrictions for harvesting Eligible Biomass Woody Fuel.

Harvest Information (completed by Forester)
Provides general information on harvest site, land owner, and responsible parties. Data is copied to other worksheets.

Small Acreage (completed by Forester)
For harvest sites less than or equal to 50 acres, forester can elect to use Small Acreage worksheet to determine biomass removal restrictions and limits based on weighted average of soil conditions. If harvest site is greater than 50 acres, or forester elects not to use Small Acreage method, this worksheet cannot be used.

Soil Condition (SC) 1-8 (completed by Forester)
For each unique soil type (Map Unit Symbol) that occurs on the harvest site, one Soil Condition worksheet must be completed. Forester enters information on Forest Products to be removed by species and MBF, and cords of firewood. Worksheet calculates the restrictions and limits on biomass removal from this soil condition. [If greater than ten Map Unit Symbols exist in harvest site, aggregate areas with the smallest acreage into the tenth worksheet (SC 10).]

Biomass Tonnage Report (completed by Forester)
Data from other parts of the workbook are imported into the Tonnage Report. Forester must complete entries, attest and sign the Report, and properly transmit the report to the Harvester and DOER.

Biomass Fuel Certificate – F *to be used for Forest-derived biomass* (completed by Harvester and Deliverer)
Harvester must enter name of harvest company and attest that the harvest met the conditions set forth by the Forester in the Biomass Tonnage Report. Deliverer must input information as the biomass fuel is delivered and weighed at the Generation Unit or Fuel Broker/Aggregator. Generation Unit Owner/Agent or Fuel Aggregator/Broker must initial Certificate and maintain it for its records, auditable by DOER.

Biomass Fuel Certificate – NF *to be used for Non-Forest-derived biomass inclusive of Forest Salvage and Dedicated Energy Crops* (completed by Fuel Procurement Agent and Deliverer)
Fuel Procurement Agent must enter name of company, information on the source of the biomass fuel, and attest to the accuracy of the provided information. Deliverer must input information as the biomass fuel is delivered and weighed at the Generation Unit or Fuel Broker/Aggregator. Generation Unit Owner/Agent or Fuel Aggregator/Broker must initial Certificate and maintain it for its records, auditable by DOER.

NRCS Soil Survey Data
Data provided by U.S. Geological Survey, Natural Resource Conservation Services, for northeast states identifying those soil types (Soil Survey ID and Map Unit Symbol) which meet soil criteria (detailed at top of the worksheet) that restrict the removal of biomass material. Soils not listed do not meet these criteria, and are not restricted for biomass removal.

Key Worksheets in the Eligible Biomass Woody Fuel Guideline

- Biomass Restriction Rules and Sustainability Criteria
- General Harvest Information
- Prescribed Forest Products harvest and Biomass Removal (thinnings/residues) for each of the Soil Conditions identified on site
- Biomass Tonnage Report (summarizes prescribed harvest and biomass removal for harvester and DOER
- Forest Derived Biomass Fuel Certificate (to be printed and accompany fuel leaving harvest site)
- Non-Forest Derived Biomass Fuel Certificate
- USDA NRCS Soil Survey Data (reference)

Biomass Tonnage Report

To be completed by Forester

Tonnage Report Number	--Last-Last-010000

Landowner	Last, First
Tract Number or Name	0
Tract Town	0
Tract State	0
Forester Name	Last, First
Forester License/State	Number,
Total Acreage of Harvest	0
Date of Submisssion	1/0/1900
Date of Harvest	1/0/1900

If this harvest is in Massachusetts, has the *Long Term Forest Management* option been checked on the Cutting Plan?

Massachusetts Forest Cutting Plan Number (type or print)

For Massachusetts harvest sites only.

					Restrictions			Prescribed Harvest		
	Soil Survey ID	Map Unit Symbol	Soil Harvest Restrictions (#N/A = no restrictions)	Acres	% of Forest Products weight Harvested that can be removed as Eligible Biomass Fuel	Tons of Eligible Biomass Fuel that can be removed	Minimum % of Harvest Tops/Branches that Must be Left on Site	Tons of Biomass Residues (Tops/Branches) to be removed	Tons of Biomass Residues (Invasive Species) to be removed	Tons of Biomass Thinnings to be removed
Small Acreage Condition	N/A									
Soil Condition 1										
Soil Condition 2										
Soil Condition 3										
Soil Condition 4										
Soil Condition 5										
Soil Condition 6										
Soil Condition 7										
Soil Condition 8										
Soil Condition 9										
Soil Condition 10										
		Total/Weighted Average		**0**	**0%**	**0**		**0**	**0**	**0**

Eligible Biomass Fuel - Residues/Thinnings Supply Mix	Residues	Thinnings

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Biomass Fuel Certificate (Forest-Derived)

Tonnage Report Number	--Last-Last-010000

A paper Biomass Fuel Certificate - F MUST accompany EVERY load of Forest Derived Eligible Woody Biomass delivered to a Fuel Broker or Generation Unit. Certificate must be uploaded to the electronic *Biomass Certificate Registry* by Fuel Broker or Generation Unit that receives this Certificate from Harvester/Deliverer. The paper Certificate must be maintained by the Fuel Broker or Generation Unit as prescribed in 225 CMR 14.00.

Harvester: Insert Information in Pale Green Cells Only

Harvest Information

Name of responsible Harverster or Harvesting Company	0

Forest/Harvest Information (from *Biomass Tonnage Report*)

Landowner	Last, First
Tract Number or Name	0
Tract Town	0
Tract State*	0
Forester Name	Last, First
Forester License/State	Number,
Total Acreage of Harvest	0
Date of Submisssion	1/0/1900
Date of Harvest	0

Percent of Eligible Biomass Fuel as prescribed in Forester harvest plan		
	Residues	
	Thinnings	

Note to Harvester: These percentages reflect the proportion of the prescibed removal of Eligible Biomass Fuel classified as Residue and Thinnings. Harvest restrictions for each soil type are provided in the Biomass Tonnage Report

Harvester Attestations

I certify that the Biomass Fuel accompanied by this Certificate removed from the harvest site identified in the Forest/Harvest Information above was done according to the requirements and limitations pertaining to Biomass Woody Fuels under 225 CMR 14.00, as prescribed to me by the responsible licensed Forester in the Biomass Tonnage Report and the USDA NRCS Soil Survey Map applicable to the harvest site.

Responsible Harvester's Signature	Type/Print Name	Date (m/d/year)

Deliverer: Insert Information in Blank Cells Only

Delivery Information (To be completed by Deliverer)

Delivery To: Name Fuel Broker or Generation Unit (or other Receipient and utilization)	Fuel Broker or Generation Unit Name	State/Prov
Date and Time of Delivery	Date (m/d/year)	Time (hr:min am/pm)
Weight/Tons of Woody Biomass Fuel Delivered	Enter Tons of Woody Biomass Fuel	Deliver's Initials

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Fuel Certificates and Registry

Biomass Fuel Certificates

- Forest Derived Biomass: Generated from Forester's *Biomass Tonnage Report*
- Non-Forest Derived Biomass: Generated by fuel provider
- Specifies fuel source as Thinnings or Residues
- All Certificates uploaded to Biomass Certificate Registry; and then denominated as one Certificate for each ton of fuel

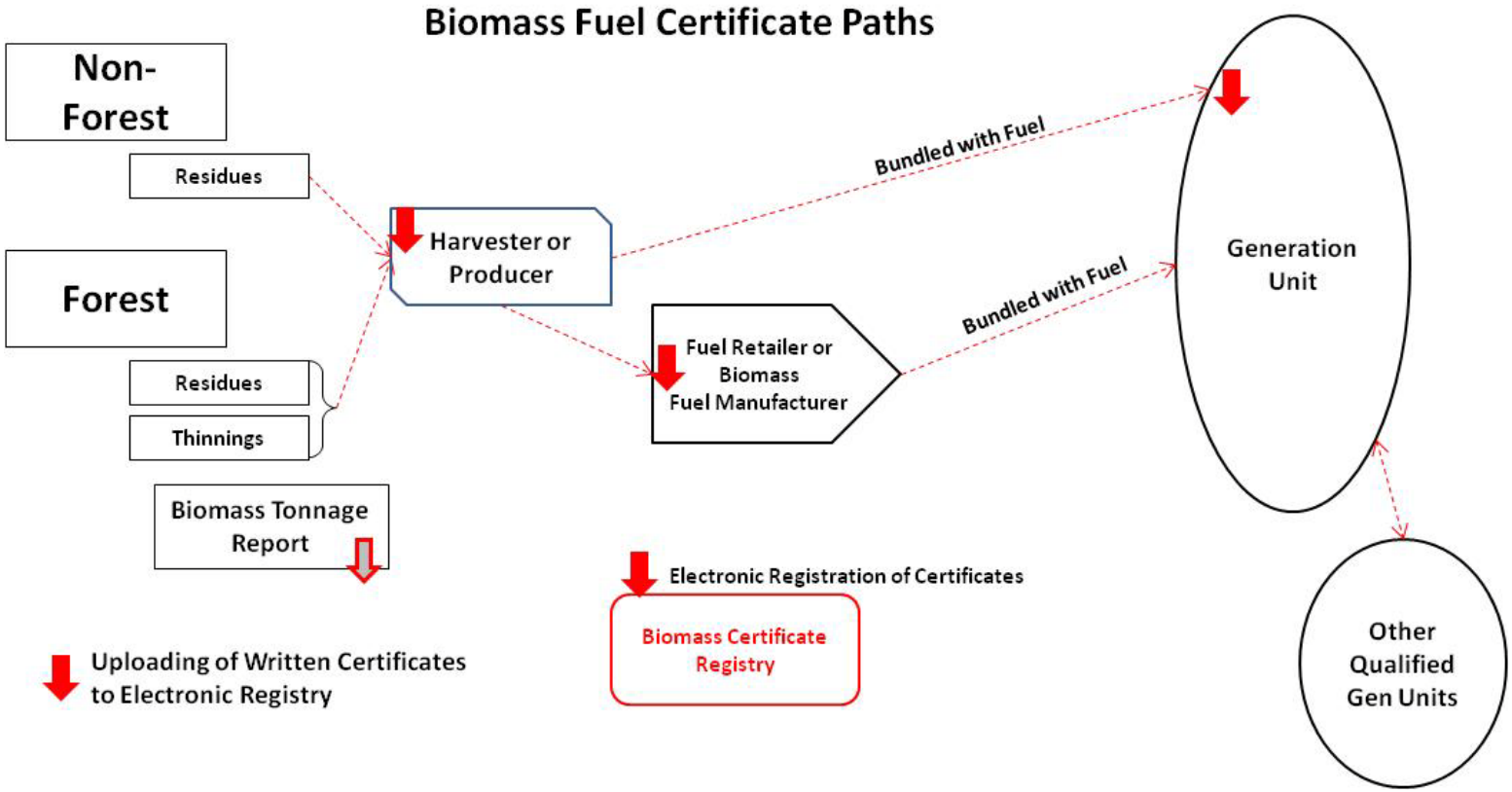
Certificate Pathways

- Directly from fuel source to Unit, without mixing (bundled with fuel).
- From source to fuel retailer, and accompanying a delivery of Co-Mingled Biomass Woody Fuel from the fuel retailer directly to Unit (bundled with fuel).
- Trading of Certificates between qualified Units.

Co-Mingled Biomass Woody Fuel

- Any woody biomass fuel that is physically co-mingled with Eligible Biomass Woody Fuel (e.g. at a fuel aggregation facility)

Fuel Certificate Paths and Registry



Biomass Certificate Registry

- Electronic Registry, to be established by DOER
- Tracks Certificates from Source to Generator
- Limited Use and Trading
- Certificate Volume (Thinnings and Residues) basis for Annual Compliance

Generation Unit – Minimum Overall Efficiency

Overall Efficiency – Definition, calculated on a quarterly basis

Overall Efficiency =

[Electric generation not utilized behind-the-meter +
Electric generation utilized behind-the-meter divided by 0.92 (line losses) +
Useful Thermal Energy +
Merchantable Bio-Products energy content]

divided by Biomass Input Heat Content

Overall Efficiency – Eligibility Thresholds

Standard Technology

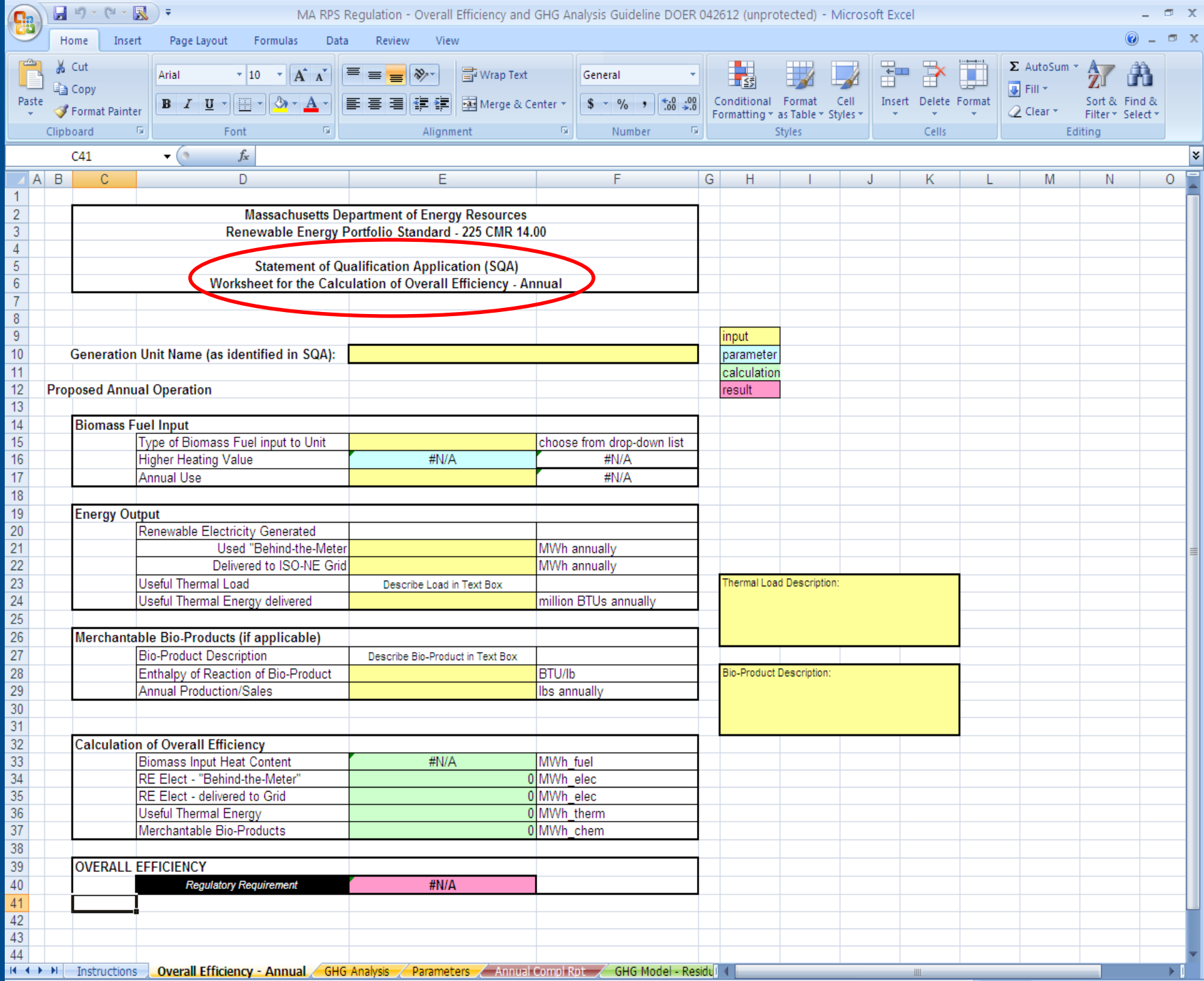
- 50% for ½ REC value, increasing linearly to a full REC value at 60%

Advancement of Biomass Conversion Technology

- 40% for ½ REC value, increasing linearly to a full REC value at 60%

Advancement of Biomass Conversion Generation Unit

Units that demonstrate advancements in fuel-to-energy conversion, fuel processing, emissions controls. SQAs open for public comment.



MA RPS Regulation - Overall Efficiency and GHG Analysis Guideline DOER 042612 (unprotected) - Microsoft Excel

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General | Number
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C41

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Statement of Qualification Application (SQA)
Worksheet for the Calculation of Overall Efficiency - Annual

input
parameter
calculation
result

Generation Unit Name (as identified in SQA):

Proposed Annual Operation

Biomass Fuel Input		
Type of Biomass Fuel input to Unit		choose from drop-down list
Higher Heating Value	#N/A	#N/A
Annual Use		#N/A

Energy Output		
Renewable Electricity Generated		
Used "Behind-the-Meter		MWh annually
Delivered to ISO-NE Grid		MWh annually
Useful Thermal Load	Describe Load in Text Box	
Useful Thermal Energy delivered		million BTUs annually

Thermal Load Description:

Merchantable Bio-Products (if applicable)		
Bio-Product Description	Describe Bio-Product in Text Box	
Enthalpy of Reaction of Bio-Product		BTU/lb
Annual Production/Sales		lbs annually

Bio-Product Description:

Calculation of Overall Efficiency		
Biomass Input Heat Content	#N/A	MWh_fuel
RE Elect - "Behind-the-Meter"	0	MWh_elec
RE Elect - delivered to Grid	0	MWh_elec
Useful Thermal Energy	0	MWh_therm
Merchantable Bio-Products	0	MWh_chem

OVERALL EFFICIENCY	
Regulatory Requirement	#N/A

Instructions | Overall Efficiency - Annual | GHG Analysis | Parameters | Annual Compl Rpt | GHG Model - Residu

Greenhouse Gas Accounting for Biomass Units

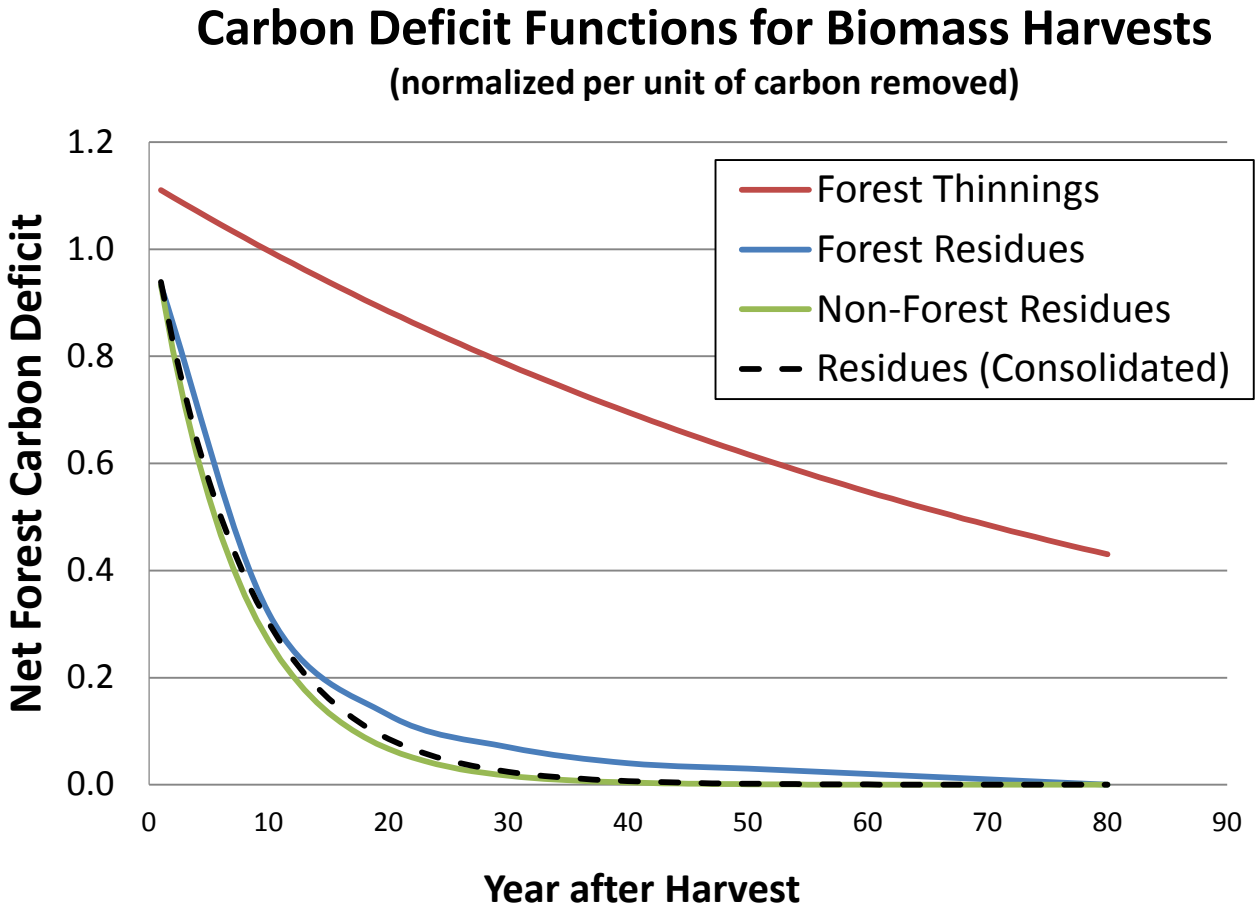
Threshold

- 50% reduction in GHG over 20 years, relative to a natural gas, combined-cycle generation unit
- Must be met on an annual basis
- Under-Compliance Mechanism provides some flexibility

GHG Accounting

- *Guideline* provides spreadsheet for demonstrating GHG threshold for RPS Application, and for Annual Compliance Reporting
- Accounting is based on:
  - Overall Efficiency
  - Displaced Fuels
  - Biomass Fuel Use: Thinnings and Residues

GHG Analysis – Thinnings and Residues



Thinnings: Long deficit reduction period during forest re-sequestration.

Residues: Short deficit reduction period due to avoided biomass decomposition.

Analyses based on Manomet Study (thinnings) and literature (residues). See *GHG Analysis Guideline*.

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Renewable Energy Portfolio Standard - 225 CMR 14.00

Guideline for the Calculation of Overall Efficiency and Lifecycle GHG Analysis

December 2011

OVERVIEW AND INSTRUCTIONS

Under 225 CMR 14.00, any operator or owner of a woody biomass Units applying to the Department of Energy Resources (DOER) for qualification under the Renewable Energy Portfolio Standard (RPS) program must meet certain conditions pertaining to the Overall Efficiency of the Unit (as provided in 225 CMR 14.05(1)(a)(7)(f)(ii)) and the Lifecycle Greenhouse Gas Emissions from the Unit (as provided in 225 CMR 14.05(1)(a)(7)(f)(iii)). This Guideline provides a set of worksheets to be used by the applicant to demonstrate that the Unit meets these two criteria.

Overall Efficiency

The applicant shall input Unit information required in the yellow shaded cells of the *Overall Efficiency - Annual* worksheet. The applicant shall also enter additional descriptive information in the yellow shaded text cells, as necessary. The applicant may provide further description under separate cover, and DOER may request additional information to assist its review of a Unit's application.

Data are to be input into the worksheet based on the applicant's projected *annual* (one Calendar Year) system performance. The worksheet is used to determine if an applicant can meet the regulatory requirement of at least an Overall Efficiency of 50%. An applicant that is unable to demonstrate an annual Overall Efficiency at or above 50% but projects operation at or above 50% during one or more calendar quarters, must complete this worksheet based on annual performance. However, the applicant must also complete the four *Overall Efficiency – Quarterly* worksheets found as the final four worksheets of the workbook. *For projects which are determined by DOER to be Advancement of Biomass Conversion Generation Units, this paragraph holds except that the minimum Overall Efficiency is modified to be 40%.*

Lifecycle Greenhouse Gas Analysis

The applicant shall complete the *GHG Analysis* worksheet. The worksheet is provided by DOER as a template for the purposes of demonstration that the Unit meets the regulatory criterion of reducing GHG emissions by at least 50% compared to natural gas combined cycle electricity generation in 20 years (based on 1-Year or Single Year Analysis).

Data are to be input to the provided worksheet in the yellow shaded cells. Other cells will be automatically completed as calculations, parameters, or copied from the Overall Efficiency worksheet. Applicants who wish to utilize parameter values different than those used in this template may propose alternative assumptions with justification to DOER for approval.

If an applicant can justify to DOER's satisfaction that unique features of its Unit merit substantially different assumptions and methodologies than those underlying this template, the applicant may alternatively submit to DOER an independent analysis with full documentation of assumptions and methodologies. Such analysis must be deemed complete, acceptable to DOER, and in compliance with efficiency and greenhouse gas requirements of the regulation.

Similarly, if DOER deems that a project sufficiently departs from the standard design and operation of a biomass Unit as provided in this template (for example, in the case of co-firing), DOER may require the applicant to utilize this template with different assumptions or parameters, or submit an independent analysis to the satisfaction of DOER.

E48 =1+('GHG Model - Residues'!E35*E44)+('GHG Model - Forest Thinnings'!E35*'GHG Analysis'!E45)

Massachusetts Department of Energy Resources
Renewable Energy Portfolio Standard - 225 CMR 14.00

Statement of Qualification Application (SQA)
Worksheet for the Calculation of Lifecycle GHG Analysis

input	
parameter	
calculation	
result	
input from other worksheets	

Generation Unit Name (as identified in SQA): 0

Life Cycle Greenhouse Gas Analysis

Biomass Lifecycle Stack Emissions from Generation Unit

Fuel Input	0	
	0	#N/A
	#N/A	MMBTU_input annually
Bio-Product Credit	If Merchantable Bio-Products, provide under separate cover, a documentation of the embedded proportion and permanence of the input biomass fuel carbon in the Bio-Product.	
		% input carbon permanently embedded
CO2 Emissions	216.4	lbs CO2/MMBTU_input
	#N/A	tons CO2 annually

Biomass Fuel Processing Stack Emissions

Provide, under separate cover, the Lifecycle GHG Analysis for Biomass Fuel Processing and enter result below	
	tons CO2 annually

Conventional Lifecycle Stack Emissions Displaced

Electric Generation	Natural Gas - Combined Cycle	If not NGCC, chose other from drop-down list
	0	MWh annually
	1100	lbs CO2/MWh
	0	tons CO2 annually
Thermal Boiler		chose from drop-down list (if a new load, enter "Natural Gas, new")
	0	MMBTU_out
	#N/A	Boiler Efficiency (standard assumption)
		Boiler Efficiency (optional user input)
	#N/A	MMBTU_in
	#N/A	lbs CO2/MMBTU
	#N/A	tons CO2 annually

Boiler Efficiency (justificaiton if not Standard Assumption):

Carbon Debt/Dividend Analysis

Carbon Debt	#N/A	tons CO2 annually
	#N/A	carbon debt, %
Biomass Supply Information		
Residues		% of supply
Forest Derived Thinnings	100%	% of supply (calculated - Supply must sum to 100%)
Net CO2 Emission Reductions		
Regulatory Requirement Applicant must demonstrate at least a 50% reduction by Yr 20 (1-Yr A	1-Year Analysis	
	#N/A	% reduction in Year 20
Based on 30 year project life (results for Year 50 allows for residue decay and forest recovery without additional project emissions post Year 30)	Multi-Year Analysis	
	#N/A	reduction in Year 10
	#N/A	reduction in Year 20
	#N/A	reduction in Year 30
	#N/A	reduction in Year 50

Important Directions: Enter data as provided in Fuel Supply Plan. Sum of Supplies must equal 100% (Forest Thinnings calculated to assure this result).

Other Key Worksheets in the *Guideline for the Calculation of Overall Efficiency and Lifecycle GHG Analysis*

- Quarterly Overall Efficiency calculations to demonstrate REC eligibility by Unit's Third-party Meter Reader.

- Annual Compliance Report (to be filed to DOER by each Generation Unit, to demonstrate compliance with GHG threshold).

Under Compliance Mechanism

Generation Unit Annual Compliance Report

- Annual report, covering the prior calendar year, to DOER providing Unit's Overall Efficiency and GHG reductions relative to 50% reduction in 20 years threshold.
- Calculation methodology and reporting per *Guideline.*

Under-Compliance

- Unit that demonstrates a reduction in 20 years of GHG less than 50% are deemed to be in Under-Compliance.
- Percentage points below the 50% threshold is the Percent Under-Compliance.

Under-Compliance Mechanism

- Unit pays Under-Compliance Payment equal to $0.50 times the Percent Under-Compliance for each REC settled for compliance in MA. [For example, a Unit reducing GHG emissions by 40% will be 10 Percent Under-Compliance and need to pay (0.50 x 10) $5 per settled REC.]
    - Fees paid to MassCEC and used as directed by DOER for residue fuel supply infrastructure and tree planting.
- Unit enters Probationary Status for 5 years.
    - Increasingly rigorous steps to assure compliance – require demonstration that more and more of the fuel supply is contracted from residue sources.
    - Probationary status waived if over-compliance offsets under-compliance, or if compliance is met for three years.
    - Otherwise, Unit's qualification is revoked after Probationary Status.

Treatment of Previously Qualified Units

- All Units maintain qualification through 2012
- Units maintain qualification through 2014 if they provide DOER a Fuel Supply Plan and utilize Eligible Biomass Woody Fuel as demonstrated through ownership of Biomass Fuel Certificates.
- Beginning in 2016, all Units must meet the Overall Efficiency, GHG reduction threshold, and all provisions of the regulation.

Program Verification and Review

Advisory Panel

- Membership: EEA, DOER, DCR, DEP, and 5 non-government entities
- Meet not less than twice per year
- Provide findings and recommendations to DOER regarding confidence in verification and enforcement of:
  - Tracking/enforcement of *Eligible* and *Co-Mingled Biomass Woody Fuel*
  - Operations of the electronic tracking of Biomass Fuel Certificates and impact on fuel markets

Forest Impact Assessment

- DOER, in coordination with DCR, will assess the impact on forests resulting from biomass fuel removals, every five years, starting in 2015.
- Assessment will also survey aggregate fuel use by sources, and evaluate appropriateness and accuracy of GHG accounting methodologies.

Further Information on Rulemaking

- **Follow all rulemaking activities at DOER's website:** http://www.mass.gov/eea/energy-utilities-clean-tech/renewable-energy/biomass/renewable-portfolio-standard-biomass-policy.html

- **Public Comment Period**
  The Department will accept written comments on this proposed final regulation between May 19th and June 18th, 2012. Any interested party may submit written comments electronically in pdf format by 5:00 pm on June 18, 2012 to doer.biomass@state.ma.us