



## **RENEWABLE ENERGY PORTFOLIO STANDARD**

### **BIOMASS ELIGIBILITY REVISIONS**

**– OVERVIEW –**

**Department of Energy Resources  
September 17, 2010**

This document provides information on the key provisions of the draft proposed regulation filed by the Massachusetts Department of Energy Resources (DOER) pertaining to the eligibility of biomass generation units to receive Renewable Energy Certificates (RECs) under the state's Renewable Energy Portfolio Standard (RPS). In addition to the regulation, DOER has provided this summary of the provisions to facilitate public review and comment.

#### **LIMITATION OF ELIGIBLE FUELS TO BIOMASS RESIDUES AND ENERGY CROPS**

The proposed regulation limits eligibility of biomass fuel for the RPS to non-forest derived and forest derived residues, forest salvage, and energy crops. The regulation provides a defining list of these eligible materials.

For forest derived residues, the regulations establish a strict limit of no more than 15% of all forest products harvested by weight can be considered eligible biomass fuel. This constraint, which practically translates to the removal of no more than 50% of the tops and branches of harvested trees, assures forest sustainability and nutrient retention.

The regulations provide that trees removed in thinning operations for the purpose of practicing good forest management are eligible biomass fuel, though they must fall within the 15% removal constraint. The product of such thinning operations, subject to the 15% removal limit, is considered forest derived residue for the purpose of RPS eligibility in order to discourage the poor forest management practice of high-grading, or removing only high-quality trees from a stand and resulting in loss of forest quality over time.

The regulation establishes a fuel certification, tracking, and verification mechanism to provide assurance that the eligibility criteria will be met, without creating undue burdens on the forestry industry and unit owners. To ensure a continuous, transparent verification process, the regulation sets up an advisory panel to review compliance and requires DOER, in coordination with DCR, to conduct a forest impact assessment every five years.

### **ESTABLISHMENT OF AN OVERALL EFFICIENCY CONVERSION CRITERION**

The proposed regulation provides that biomass units must meet a high efficiency criterion so as to minimize greenhouse gas emissions from the finite biomass resource available. DOER has set this efficiency criterion for full REC benefits at 60%, but the regulation provides that units operating at levels beginning with 40% efficiency to receive a fraction of a REC for each MWh generated, on a sliding scale. DOER believes this approach will encourage the development of commercially viable applications that achieve higher levels of efficiency, moving toward a target efficiency of 80%.

### **MEETING A GREENHOUSE GAS REDUCTION CRITERION**

With the limitation of eligible biomass fuel to primarily residues, and the imposition of a high efficiency threshold, DOER believes the proposed regulation allows only for biomass units that will have substantial greenhouse gas reduction benefits over time. Nonetheless, the proposed regulation also requires for qualification that a unit demonstrate to DOER a reduction of life-cycle greenhouse gas emissions of at least 50% over 20 years, compared to natural gas combined cycle electric generation and any fossil fuel emissions displaced from serving thermal loads.