Gov pushes biomass
But forests could die in support of his plan

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Up until the Industrial Revolution, humans burned wood and dung for their energy. In the poorest parts of the Third World, people still do to heat homes and cook food. But it is a high mark of our own society's development today that we get our energy from more advanced sources, like coal, oil, natural gas, nuclear, and even wind and solar.

This measure of progress helps explain how we have created the most affluent economy in world history. It also partly explains how the United States has been adding, not losing, forestland over the last century.

So if burning wood is a 19th century anachronism, why is Gov. **Deval Patrick** eager to make it a part of the state's 21st century energy mix? That is the big question that must be raised in the wake of reports his administration is pushing the development of four industrial wood-burning power plants in western Massachusetts.

The official answer is that the state must meet a 2020 renewable portfolio standard deadline to get 15 percent of its energy needs from renewable sources.

To do that Beacon Hill is kicking in $1 million in subsidies to get these biomass plants constructed, and is fast-tracking the environmental approval process to develop a resource backers tout as renewable and sustainable. These plants would run partly on woodchips and refuse from tree service companies, but officials haven't ruled out cutting in state forests to provide fuel if needed.

This explanation raises more concerns than the administration's plan allays. One is the high cost of generating power from burning wood. Each of the proposed power plants would be in the 50 megawatt range. By contrast the coal and natural gas plants they would compete with might produce 500 to 1000 megawatts each, generating power far more efficiently. The state would reward the new biomass plants with renewable energy certificates in order to close the spread and make their prices appear competitive. But that spread has to be made up somewhere, so costs will be picked up by taxpayers.

Meanwhile Massachusetts already boasts the third highest retail electricity prices in the U.S., 60 percent higher than the national average. Nothing in the governor's energy proposals aims to bring down prices that are strangling economic growth.

The economic downside of wood is rooted in its geology. Wood is bulky and has a low energy content relative to other fuels. A pound of coal packs twice the energy of a pound of wood, while a gram of uranium packs the punch of eight tons of timber. The most generous estimates suggest it would take nine acres of forest to provide a sustainable annual supply of wood for just one home. Multiply those nine acres by the roughly 200,000 homes the proposed plants would serve, and you have some idea of the landscape footprint that wood burning plants would leave.

The uranium and fossil fuel supplies presently providing the lion's share of our energy, whatever their drawbacks, are extracted from beneath the surface and leave a relatively minimal footprint compared to their energy contribution.

While the governor touts the green aspects of burning wood, it is telling that the fiercest opposition to these plants comes from environmentalists. They worry about deforestation, and they point to tricky carbon accounting by biomass proponents to suggest that burning wood may actually increase greenhouse gas emissions.

Families having to stoke the hearth with firewood to cook dinner or heat the homestead are scenes from 19th century novels. Patrick's idea to revive that pre-industrial practice - albeit on an industrial scale - deserves to be taken out behind the woodshed.