The Forest Products Report

The Case for Wood Bioenergy

Editor's Note: This is a rebuttal to last week's lead story "Spending Deal Overrides Climate Science on Wood Energy" from the Bonner County (Idaho) Daily Bee. It was written by ***Andrew Johnson****, Vice President of TSI Inc.*

When grown and harvested, sustainably wood is a great source of energy with the potential to displace all of the fossil based fuels used currently in industry and our daily lives. Drax Power in the U.K. sits on top of one of Europe's largest coal mines but has recently converted from using coal to using wood pellets and now provides as much as 10 percent of the U.K.'s energy using this green fuel. In fact, just last week, Britain had its first "coal free" day since the birth of the industrial revolution. Alaskan Airlines recently flew cross-country using fuel derived from wood chips. The Netherlands, Japan and Korea have approved a massive expansion of power generated from wood pellets and it looks like Canada and China are going the same way. So what makes wood a green alternative to fossil fuels and good science according to a large body of scientific institutions and many governments?

The basic science…

When a tree grows it absorbs CO_2 (carbon dioxide) from the atmosphere converting it into carbon and oxygen. The carbon is locked up in the tree meaning our forests are a massive carbon vault. When a tree dies it slowly rots releasing the carbon back into the atmosphere as CO_2. If the total tonnage of all the wood in all the forests in North America stays the same then this is, by definition, a carbon neutral cycle with no net addition of carbon to the atmosphere. If we can increase the size of our forests we actually help reduce the total amount of carbon in the atmosphere so the whole process would be better than carbon neutral. This becomes a rallying point for environmentalists—more forests mean less carbon in the atmosphere and as a bonus more habitat for our wildlife. Although I think it's somewhat idealistic, I do agree with this hypothesis. Hence, we all have a tendency to rail against the very idea of chopping wood for energy.

Wood Bioenergy…

Using wood for energy means that at some point it gets burnt (whether that's in a power station, a jet liner or on your fireplace at home). The thing is, when wood burns it releases the same amount of CO2 as it does when it rots. So the real question is—does this use of wood for bioenergy deplete the overall tonnage of wood in our forests? (Because if it does then that's not good.)The wood bioenergy business actually uses a tiny fraction of the total wood harvested in our forests. As an industry it is dwarfed by the lumber and paper industries so it can be hard to get your hands around the statistics. For the most part

the wood used for bioenergy on an industrial scale comes from sustainable plantations. There is a growing body of hard evidence that proves that by adding a value to the local forest ecosystem, owners and managers of forests are more inclined to replant with new trees, and that forests in areas that are being actively harvested for wood bioenergy are actually increasing in total tonnage. Many of the largest bioenergy (pellet) producing plants export fuel to Europe and are governed by extremely stringent certification programs for sustainability (as devised by the most devious and hard left bureaucrats of Brussels). So by that measure the wood bioenergy business is achieving the goal of the environmentalists—more forest, not less—we are on the same side and should be fighting everyone's common enemy, the fossil fuel industry.

There are many other issues that get thrown in the mix when it comes to this topic, some (in the guise of science) are well-meaning but nonsensical; others are good because they help keep the industry on its toes. However the specific charge highlighted in the Bonner County Daily Bee article was that wood is a major pollutant that produces a lot more carbon dioxide than coal. It is true that if you are burning wet chips (which a number of small power producers do) that the ratio of heat energy to carbon dioxide is not good, but you don't have to be a scientist to understand this. Just try burning wet logs in your log burner or fireplace at home—it's a disaster. What's truly amazing is that they can even burn wet wood chips. Unfortunately this data is cherry-picked and used to demonize the whole industry.

Mainstream power producers (like Drax in the UK) burn dry wood in the form of pellets and are able to run their power stations without derating them, and with a lot less emission of pollutants than when they use coal. The technology is available and being used to make the whole process really clean. In any event it's a red herring—so long as forest stocks are not being depleted as a result—it doesn't matter if you are trying to burn wet wood or dry wood—wet wood might be inefficient but it's still carbon neutral so long as the forestry industry supplying the raw material is run sustainably—which, for the most part in the US, it is.

I applaud constructive criticism of any industry, it makes us all better, but let's start with a balanced view. Wood is a good, clean, sustainable source of energy that is producing jobs and manufacturing investment in our rural communities in spite of the climate unfriendly tactics of the Trump administration. One short paragraph on page 902 of the appropriations bill might well end up being almost the only thing I agree with the current federal government on.

About the author *– Andrew Johnson is an executive in the Engineered Wood and Wood Bioenergy Industry, a former card-carrying member of "Friends of the Earth", an electric-car-driving-father to teenagers and young adults who are all on the far-left of the save-the-earth spectrum, and a self-confessed environmentalist.*