Wood to Energy Task Force

Meeting Minutes
Third Meeting
Augusta, ME
3/19/2008

Members of the Task Force:

Les Otten, Chair, Maine Energy Systems LLC
Pat McGowan Commissioner, Dept. of Conservation
Chip Gavin Bureau of General Services
Bill Strauss FutureMetrics
Charlie Agnew Biomass Commodities Corp.
George Soffron Corinth Wood Pellets
Keith Van Scotter Lincoln Pulp and Tissue
Jim Delamater Northeast Bank
Dale McCormick Maine State Housing Authority
Wick Johnson Kennebec Tool & Die
Patrick Strauch Maine Forest Products Council
Ian Burnes Maine Office of Energy Independence
Ed Miller American Lung Association of Maine
Jack Cashman Governor's Office, Senior Economic Advisor
Charlie Spies CEI Capital Management LLC
Bill Bell Maine Association of Conservation Districts
Doug Baston Small Woodlot Owners Assoc. of Maine
Peter Triandafillou Huber Resources Corp.
John Kerry Office of Energy Independence
Dana Connors Maine State Chamber of Commerce
Hemant Pendse Prof & Chr ChB Eng Dept, UMaine
Doug Gardner Prof. of Wood Science, UMaine
Doug Smith Retired Attorney/State Senator
Jon Hinck Attorney/State Representative
John Fitzsimmons Maine Community College System
Dutch Dresser Maine Energy Systems LLC
Sean Mahoney Conservation Law Foundation

Interested Parties to date:

Amy Carroll, Bill Card, Chris Howard, David Farmer, Edie Smith, Francesca Romanoski, Jane Lincoln, Jeff Tracy, Jennifer Merrow, Jeremy Caron, John Gurley, Karin Tilberg, Ken Bisson, Ken Eldredge, Leanne Diehl, Mackenzi Keliher, Mark Norward, Mark Walker, Michele Varuolo, Norm Anderson, Paul Aubrey, Peter Feeney, Peter Wintle, Sam Eldredge, Will Brinton.

Introduction (Les Otten)

The very reason we are here today: $3.74 a gallon. That's the price of oil this week.

With the Legislature coming to an end in April we have a small window of opportunity to take action on legislation from the Governor's Office; we may forward to you information on concerns we have recognized and potential legislation we may suggest.

Jim Delamater:
As banks, we are trying to get the state to recognize the need to provide incentivized programs for alternative energy projects.

Pat McGowan:
Because Legislature adjourns in April and there is an election in November the new Legislature may not be familiar enough to understand what the Task Force is doing. As agencies we are looking at options for increasing weight limits on state highways, options for BGS to retrofit new and existing buildings, and issues relating to critical infrastructure needs and air emissions controls. We will be putting together some legislation to put forward and will present that to this Task Force.

John Fitzsimmons:
Are there any concerns about the timing? With the budget shortfall and the closing of session is it actually less beneficial to put legislation forth now instead of waiting until the next session?

Les Otten:
There are several immediate actions we can take to make changes that will not harm loggers or the consumers and we want to put those forth as soon as possible. There is more technical and more extensive legislation that we may need to wait on.

Dale McCormick:
We have had calls from bankers who want to offer their own loan and incentive programs and we support that, and as a quasi-government organization we are also doing what we can to develop programs as well.

Review of Minutes from 2/20/2008:

Approved

Review and Comment on Mission Statement:

Newly Proposed Language:

> ***The Governor's Task Force on Wood to Energy was established to identify, evaluate and promote the use and development of sustainable alternative energy resources and technologies by capitalizing on the abundance of Maine's forest resources. The Task Force will evaluate the economic, environmental and public health impacts of forest-based energy alternatives and will provide recommendations to reduce reliance on foreign oil, develop and preserve new and existing markets and ensure the responsible stewardship of Maine's wood energy resources. The Task Force shall also examine European technologies and resource management, drawing lessons from their existing markets. It is acknowledged that the focus of this Task Force is purposefully narrow to allow for real accomplishment on a limited topic. There is significant energy consumption in power production and in transportation that can't be addressed within the scope of work for this Task Force. These other wood to energy options should be given proper consideration by other related groups in the near future so that the state of Maine can***

capitalize on their inherent value.

Doug Gardner
Expressed concerned that the idea of addressing energy needs for buildings only addresses a portion of the energy needs that the state will confront. Other needs include biomass generation and other efforts. There is considerable room for expansion of the scope of this Task Force.

Dale McCormick
Perhaps the Task Force should add a short phrase that addresses who we are and what our scope is and the fact that we are not a catch all task force and cannot develop the entire solution but can begin the process by adopting attainable goals for our work.

Chip Gavin
There should be a phrase that addresses that we are an important part of the solution but not the entire solution.

George Soffron
We should keep our focus relatively small given our time constraints.

Dutch Dresser
This mission statement broadens our scope, but continues to keep it focused enough to be able to make progress in the limited time we have.

Chris Howard
Perhaps the Task Force can focus the scope on heating alternatives for residential and commercial buildings and be able to make progress rather than trying to address a larger scope than it has time for.

Wood Pellet Plants – George Soffron

There are currently two wood pellet plants in Maine

- NE Wood Pellets – Ashland
- Corinth Wood Pellets

The capacity for production is increasing.
Contact as been made with wood stove manufacturers about purchasing larger quantities of boiler units.

By the end of 2009 the industry projects that there will be 350,000 tons of pellets produced in Maine annually.

Les Otten
As MESys we have noticed that there is market potential that is not being developed.
In Europe the market has matured from bagged pellets to large capacity pellet systems.
Our desire for convenience in the past has overwhelmed our desire for being" green" or being smarter about our energy use.
Four things must happen simultaneously to meet our needs:

1. A reliable consumer base, which means not just a stove but a complete whole-house system
2. Commercially viable heating systems for long term contracts with commercial users

3. Currently there is a limited amount of ASME approved equipment that can use this resource
4. Capacity must be developed .

George Soffron
One of the things that we need to address as a committee is where we want to focus our industry and how we want to balance it with current wood industries

Charlie Agnew
West coast resources are limited and there is a potential market for Maine pellets

Rosaire Pelletier
How many pellets are coming into Maine from out of state or Canada?

Charlie Agnew
There are companies in Canada and New England that are importing pellets into Maine.

Ian Burnes
Is there a rating system for the quality of pellets?

George Soffron
Yes, there is a system from the Pellet Fuels Institute that governs the production and quality of wood pellets. There different levels of pellets including standard grade pellets, premium grade and super-premium. The guidelines are being developed by the Pellet Fuels Institute.

Demand for pellets is growing worldwide. If you go online there is a company called JCC, it is the largest manufacturer of wood pellets and the company is unable to meet demand and is currently in the process of building another factory. You can look it up by doing an online search for Green Circle Bio Energy.

Chip Gavin
When looking at the industry specification for producing the standard, premium and supreme grades, what is Maine capable of producing?

George Soffron
We can potentially produce all three forms of pellets.

Charlie Agnew
There is an important clarification that needs to be made. The raw material content can contribute to ash content. Scooping up dirt while collecting the material can contribute to the ash content.

Les Otten
The Pellet Fuels Institute standards are self-enforced.
Do we want to allow self regulation or should government develop standards?

Ed Miller
We would be interested in using pellets to boost our energy resources and to clean up our air.
We shouldn't try to focus on adopting technologies like Europe – are there closer industries that can provide fuel to the State of Maine.

Bill Strauss
Premium or super-premium grade pellets allow you to have the ash cleaned once a winter or less versus more conventional and inefficient wood fuels that require constant ash cleanup.
The idea of having good standards and ensuring some form of enforcement is very important to the viability of the market.

George Soffron
The Pellet Fuels Institute is well on its way to assuming responsibility over the regulatory needs within the industry and so the Task Force's energy should be focused elsewhere.

John Fitzsimmons
Expressed his concern that the Task Force may be deviating from its original charge.
Asserted that the Tasks Force's major charge is to address the in-state need for energy and heating and not the exportability of it.

Chris Howard
We first need to understand what is available for supply and how the supply will grow or decrease over time and what incentives can be put in place to motivate supply increases and to motivate demand.

George Soffron
The Industry has a poor image with consumers and within Washington DC as a result of related, but different and less-efficient and clean wood energy options.
The industry is viewed as small and immature and hokey.
Consumers still see it as dirty because of previous technologies that are now outmoded.

Ian Burnes
Has heard from early wood pellet adopters that the quality of wood pellets varies considerably and can provide serious headaches.
Would like to explore this further because there needs to be some consistency of quality for manufacturers to conform to.
Is there an independent third-party program that is viable enough to evaluate pellet quality from the outside?

George Soffron
There is an independently verifiable third-party program being proposed and considered by the Pellet Fuel Institute and it will be addressed in June or July.

Dutch Dresser
But, wood pellet producers typically have to volunteer to be certified.

Les Otten
As a Task Force perhaps we could make a recommendation that wood pellets need to meet a specific standard.

Pat Strauch
When I talk to the landowners there is tremendous opportunity that can be created by using the so called "dirty residue" that remains after cutting.

Can those materials (tree tops, leaves, bark) produce a premium pellet or are we creating policy that may impact the use of those materials?

Les Otten
There is an enormous potential that we have not tapped into yet from the "dirty residue".
We are saying that if our goal is going to be to meet or exceed ash or air emission standards for structures then you want to meet at least the premium pellet grade because it will be a better product to burn from an efficiency, environment and economics perspective.

Bill Strauss
For high quality home heating systems it should be required fuel.
Consumers should not be burning less efficient pellets.

Dutch Dresser
Reviewed the standards for premium grade pellets from his laptop. Standards are available at: http://www.pelletheat.org

Pat Strauch
Are people buying round wood and hammer milling it to make pellets? Are they no longer using sawdust from the saw mills?

Ian Burnes
The pellet manufacturer that currently has the pellets with the least ash content are co-sited at a hardwood flooring mill in Canada.
We should not propose that we start a state board but there should be a process to educate consumers about the quality of the product that we want to manufacture in this state.

Dale McCormick
Government can help elevate the industry by increasing the quality of the product with standards and could improve the market.

George Soffron
The price of pellets will increase as the systems and the technology gain in popularity. It will eventually level out however.
The first advantage is that the gap between oil and pellets is wide and so the pellets can rise and still be competitive.
Sawdust prices have gone up and the demand is rising and that will drive the market speculation.
Global markets – we have a devalued dollar; we have a market and we have a good product for European clients who are coming to purchase large quantities for their markets.

George Soffron
It looks easy to make pellets, but it is hard and a lot of people don't understand that.
Additionally, the wood fiber industry goes through cycles and many people don't understand that either.

Les Otten
I think that we will recommend from a consensus standpoint that some form of standard be developed and adopted by Maine for premium pellets.

Ian Burnes
Suggested one small addition – if the group decides to have a third party, verifiable certification process then it would be useful, but if it is just industry saying what's in their pellets then it would be a pointless endeavor.

George Soffron
Is one of the efforts for this Task Force going to be to try and resolve if we have enough of a resource to support the industry?

Les Otten
We are in a bit of a different situation than Vermont, New Hampshire and New York because they are underutilizing their wood baskets. They don't have enough of a market for their available resources and so they will begin to ship their products to other states where markets exist.

Lung Associations Perspective
Presented by Ed Miller, Executive Director

We have two major concerns with particulate air pollution:

- The more we learn about particulate air pollution, the more we discover that lower levels of exposure can have a drastic impact on human health.
- Add in the composition factor and it effects both the risk of heart and lung disease.

It is very much like diluted second hand smoke but on a much larger basis.
It appears from initial research – and contrary to original thinking on the subject – that the wood to energy initiatives we are exploring could be accomplished while simultaneously improving air quality.

From a toxicology perspective the point has been made that it is not just the reduction of particulate matter but it is the nature of what the matter is that is quite different when comparing particulate matter from pellet burners and boilers to the particulate matter from oil burners.

I present this as a background because I see a unique advantage for our state in knowing that it can improve human health, improve the economy of the state, and address our future energy needs through the exciting work of the Task Force.

There is no single solution; it has to be a combination of efforts that move us toward the solution.
I think that our concern is not just with air quality; we are in a poor state with high levels of chronic illness and people are being forced to make choices between healthcare costs for prescriptions and fuel. Not only does the pellet approach make sense economically, but it improves indoor air quality as well which hasn't been discussed by this group yet.

Dale McCormick
Could we get a comparison of the different fuels and the toxicity of those fuels when compared against other fuel sources?

Ed Miller
Certainly.

Shawn Mahoney
Has there been a lifecycle analysis completed to determine the viability of wood pellets as a heating fuel source?

Wood Pellet Development and Systems
Doug Gardner, UMaine

www.forestbioproductsumaine.edu

Project undertaken in conjunction with Corinth Wood Pellets – powerpoint presentation.

Neils Nielsen is perhaps the worldwide authority on wood pellet technology and was in attendance at the Task Force Meeting.

The dies on wood pellet machines must be changed almost every three weeks causing high energy and maintenance costs during production. The cost for a pellet machine is $250,000 per machine on average.

Wood Supply Outlook

Large Landowner Perspective
Steve Schley, Seven Islands Land Company

Given the discussion that you just had about the standard of pellets I guess I would tell you, and you can correct me when I am done, that the best opportunity for Maine is not premium pellets it is standard pellets. I will be presenting on behalf of the large landowners and Tom Doak, will be representing the small landowner perspective.

The reality is that most round wood in Maine is well spoken for in terms of existing markets. There are pockets in the northwest corner of the state that don't make full use of the resources, but Maine is generally a net importer of round wood to meet the demand needs.

Landowners prefer to have deep markets for their wood products as opposed to less stable markets. The reality is that large landowners have modeled their forests extensively and have created long term forecasts and strategic plans for the management of their resources. Where there could be deemed an underutilized resource is in the so called "dirty wood": Bark, tree tops, needles, branches and other residuals from cutting. Dirty wood is where the opportunity is. Otherwise you are competing with paper mills and pulp mills. For the large landowners that's fine, because more competition means a better price, but for the pulp and paper industries, it could be detrimental.

Les Otten
We heard from the State Forester that there were 1.8 million tons of round wood not being used. Is that true?

Steve Schley

Just in the Pingree forest alone we have a considerable amount of tree tops that could be considered round wood that have not been removed, but it currently requires chainsaw processing and that is perhaps the most harmful work a logger could do. Developing a technology to debark the tops could produce an enormous amount of volume from the existing resources.

There are additional volumes but they are not currently cost effective for harvesting. The greatest opportunity for having significant round wood volume would be to help finance the systems necessary to do more of what would be characterized as pre-commercial thinning and I would agree with the million ton reports projections.

If the pellet industry could revisit the processing of converting raw materials and develop technologies to bring those resources to market you are talking about at least 100,000 tons of raw material available from residuals alone per year. You're going to have to have harvesting systems that have yet to be developed. Right now it is not cost effective, but with technology development it would be feasible.

Small Woodlot Perspective
Tom Doak, SWOAM

When we talk about the members of my organization, we are talking about small landowners who represent about 45% of the forestlands in Maine. Better markets are a positive things for small landowners. Very few small landowners do the marketing for their wood, but they are contracting with firms that should ensure that their wood is flowing to markets and that they will get the best returns. For small landowners whether its pulpwood or biomass or chips its great business, but the real value for small landowners is in saw logs. For the small landowner being able to harvest the residual materials would add value to their forest resources.

One of the greatest concerns for small wood lot owners is the development of green standards or sustainability standards for wood pellets. Small woodlot owners generally can't afford the high costs associated with becoming independently certified as a sustainable forest owner. If such a certification is developed what will be the cost associated with that program and who is going to pay for it? If the market wants green-certified pellets then that is going to be a much tougher thing for small landowners to provide.

Steve Schley
When I have heard pellet manufacturers talk about their projected raw material costs the numbers I am hearing are wrong. It's currently between $30 and $40 a ton. That's whether you're competing with pulp mills or not. You have cutting, processing at the yard, trucking to the mill and processing at the mills. I don't know if you have had presentations on the costs associated with the pellet market yet?

It doesn't matter whether it's clean or dirty wood. A lot of the costs are going to be determined by the technologies to move products from the forest to the roadside. Currently, Canadian technologies are harvesting round wood of much smaller proportions but there is little advantage in the market and the viability is limited.

We know what we are doing for wildlife and ecology is important for forest regeneration and we are incorporating those needs into the resource projections. We need to leave some volume of that wood behind, but there is a significant portion of that can be brought to market.

Pat McGowan
Chip Gavin is finalizing an RFP for a wood pellet system for a state building.
We are looking at implementing this quickly so that we can boost the demand side from the public arena and help jump start the market.
We are working on an electronic assessment and grading of buildings from A- D. Buildings rated with an A are buildings with systems that will be sufficient for a decade or more, D rated buildings will require maintenance and upgrading the soonest.
Get some recommendations to us and we will go forward with this and the end would be a public bond issue that would call for buy in by municipalities and other entities to integrate biomass, bio-fuel and wood pellet technologies into their buildings.

Ed Miller
Dirty wood does not mean dirty air! We need to revisit the language of dirty wood and see if we can develop a more marketable term.

Charlie Agnew
This goes back to standard - you can clean emissions from ash thoroughly.
There is quite a lot that has to do with particulate and gaseous emissions and what can be done to clean the product using technology.

Tom Doak
We are well below the capacity of the forest to produce volumes of resource and there is considerable opportunity for growth of the resource and available supply

Les Otten
There appears to be the necessary capacity within the resource.
Right now we are only at 100,000 tons worth of production per year and we don't have the facilities to consume the pellets we are manufacturing and they need to be exported.

For your review I have areas of discussion that I drew from today's meeting that we want to focus on moving forward:

1. **There needs to be popular understanding and acceptance of the wood pellet industry. This is a clean technology and the market needs to know that.**
2. **Domestic production would be extremely important because it would keep money in this state, improve the economy and increase use of our forests and improve the financial stability of consumers.**
3. **There is no consumption equipment. There is no ASME approved equipment available in stores. The technology is not widespread throughout Maine. We don't produce burners or boilers in the State of Maine and there is a significant potential to do so.**
4. **The consumption base does not exist. It is not in homes and schools and widely adopted as a mainstream technology.**
5. **There is no financing capacity. We need to continue to support R&D at the State of Maine and if we can use a paper industry byproduct to fuel the pellet industry then we are well on the way to creating a viable market.**
6. **We need to figure out recommendations for legislation and policy that will improve the viability of the market and ensure that the wood products industry will be able to meet the demands of this emerging market.**

7. **We need to begin the discussion of farming our firewood (switch grass, elephant grass, poplar trees, willow trees).**
8. **Government needs to support all of the above actions if we are going to start an industry. To be fair to all of the stakeholders we have to be able to recommend that we do everything we possibly can simultaneously.**

Next Meeting
I would like to make the next meeting a discussion of the eight items just covered and see if the Task Force can reach consensus and then get some direction for steps that can be used to make progress on recommendations.

Steve Schley
If we knew how many buildings could be retrofitted with viable systems, perhaps from the state list provided by Commissioner McGowan, then it might give us a greater idea of the available market.

Chip Gavin
To date, when we have looked at integrating these systems into buildings over 10,000 square feet then wood pellets do not remain the best and most viable alternative energy technology available and we need to determine exactly what facilities we could implement this technology in. We are talking about residential or small-scale commercial facilities and we are talking about facilities that could be made more energy efficient or are energy efficient and we need to focus on what buildings would be a good fit for this technology.

Ian Burnes
We are in an era of tight budgets and we need to find the benefits so that we can compare this industry apples to apples with weatherization and other efforts. We are going to see costs go up in the market, but we need to figure out how to burn less overall. We need to be clear in providing an overall context.

Bill Strauss
He will be presenting the economic impacts of the potential market on the Maine economy at the next meeting.

Chip Gavin
As commissioner McGowan mentioned we do anticipate an RFP to heat some state buildings with this type of technology and I encourage folks to stay tuned because there will be news on this soon.

Ed Miller
We should ensure that this is not released as a boutique initiative, but as part of a larger strategic energy plan. Converting smaller town offices might be worthwhile as part of an overall strategic plan.

Next Steps:
Because we have missed a few meetings due to weather we may have another meeting placed on the agenda.

The next meeting will be Wednesday, April 2nd in room 105 of the Cross Office Building.