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PRESENTATION

Michael Cox - Piper Jaffray - Analyst

Thank you very much for joining us today, my name is Michael Cox, research analyst for Piper Jaffray. Thanks for joining us at the 6th Annual Piper Jaffray Clean Tech Renewables Conference. I am very pleased to introduce Metabolix, a meeting edge bioplastics and plant science company. The presentee from the company will be the company's Chief Financial Officer Joe Hill and I will turn the floor over to Joe.

Joseph Hill - Metabolix Inc. - CFO

Welcome everybody and thanks for attending our presentation for Metabolix. Before we get started, I do want to draw your attention to our Safe Harbor statement, our presentation does include in our response to various questions that may include forward-looking statements about the company's revenue and earnings and about our future plans and objectives. Any such statements are subject to risks and uncertainties that could cause the actual results and the implementation of the company's plans and operations to vary materially. These risks are discussed in the company's filings with the SEC including without limitation our form 10K which was filed March 11 2010.

So Metabolix, who is Metabolix? We are a world leader in multi-gene systems technologies for biopolyesters with a deep expertise in scalable engineered microbes. We have the expertise to scale up novel industrial processes from initial concepts to global scale production, addressing large-scale global markets and bio-based plastics, chemicals and enhancing energy economics. So what this means is, we take variety of renewable resources and through a series of processes including genetic modification and fermentation, we can deal with the industries of plastics, chemicals and fuels. So, our core capabilities in enabling this global markets are, we have innovation in multi-gene systems, in microbial engineering and implant technology.

But not just in gene expression and microbial engineering, we also have engineering excellence in scaling up this processes, in systems integration and developing pilot manufacturing. And then, in addition to that we have strong expertise in developing global markets in market analysis, we have strong expertise in product development, especially in polymer and especially chemicals and in industrial branding. So what is it we do, how do we do this. We have two primary pathways, so we are producing PHA. PHA is a naturally occurring plastic. It has been occurring, being produced for millions of years. The way mammals store energy, through fat, certain microbes in plants store this energy as PHA. They do it in very trace amounts, it is a natural process and what we have been able to do through genetic modification is to trick these microbes into producing significant quantities of this PHA on economically viable scale.

So the first path way that we're commercializing in marketing today is a fermentation path way. Where, we introduce microbes to sugar, they eat the sugar, they grow tenfold, 80% to 90% of its body mass is this plastic, we wash away the excess cell material and are left with the PHA. The other process that we have to do this is to produce the PHA directly in the plants themselves. Now this is a crop science, we are able to produce this in switch grass, in oilseeds, in sugar cane, in tobacco and this is where we are in developing stages today and have some significant proofs of concept. We have an efficient recovery process and our underlying competency is in the PHA chemistry.



So our business portfolio and our path ways, we enable three integrated business platforms. The first is to take the PHA and produce Mirel bio plastics. This is we're doing with our joint venture with Archer Daniels Midland. The other is that we can take PHA and produce industrial chemicals and we are able to do this through a fermentation process and also through our crop-based businesses. So, if we look at our business portfolio, we are and early biotech leader, we have a very robust portfolio. Our Metabolix growth platform has shown steady progress since the company has been incorporated and we have significant potential ahead of us through value creation. So, let me take a couple of minutes to just go through some of the history of the company and share some of the exciting growth opportunities we have in front of us.

So our foundation is on PHA technology, we in the early stages of the company have developed this technology, we demonstrated its viability and it is proof and we forge a relationship with Archer Daniels Midland. We have a joint-venture with Archer Daniels Midland where we have a joint venture company called Telles and Telles sells and commercializes the PHA that we are doing for a fermentation process called Mirel. Since 2006, we had our successful IPO, since then we have our first commercial plant from Mirel constructed and in operation with the initial design capacity at 110 million pounds, scalable to 440 million pounds or translated from our initial capacity of about \$275 million of revenue scalable to \$1 billion of revenue. We have signed on numerous early adopted customers from Mirel, that are on-board and we are shipping products to them today.

On the industrial chemicals side, we have proof of concept, we demonstrated that in 2010 and in the oilseeds side, we have had a successful field trials in 2010. So that leaves us to today and the value creation and in the near future. So we have three main platforms, we have Mirel which is our bioplastic produced through the fermentation. We have our industrial chemical platform and we have our crop platform, and these three together have some very exciting opportunities for us and some very strong potential for value creation. So if we look at going forward, some of the major milestones we are looking at is for Mirel, of course the first is the plant is opened, it is manufacturing product today and we're in the stages of selling out the Clinton plant with the future to expand that plant from 110 million up to 440 million pounds produced per year.

On the industrial chemicals side, our initial focus is to produce C4 chemicals and to commercialize that and then to expand that two other industrial chemicals, C3 chemicals, C5 chemicals. And on the crop side, our targets are to achieve crop yield targets, we have some significant proof of concept, we have had some successful field trials and now we are advancing our technology to improve our yields and to commercialize those crops and enforcing partnerships for that. So these three platforms here have very strong potential for tremendous value for Metabolix.

So let us focus first on the Mirel bioplastics. This is our versatile family bioplastics, it is a plastic that is superior to petroleum-based plastics, in that it reduces our dependence on petroleum. It is truly a biodegradable product and is biodegradable in ambient conditions and not only does it replace other petroleum-based plastics, it enables new applications that one could not do with petroleum based plastic.

There are other bioplastics are out there in the market being produced. Mirel is superior to any of these other bioplastics and it is, when you are thinking about the bioplastics you need to consider all of the properties of those plastics. It is superior in that, it has a wide range of properties, it is Vinotte certified as biodegradable. The product is biodegradable in ambient conditions, that does not need industrial composting, if the product finds its way into lakes, into streams into composting, it will naturally degrade. It is seen as food by microbes, so as long as you introduced in into a microbial environment it will be ingested by the microbes and just decompose. But just like, if it is not in a microbial environment, it will last for a long time, take for example this wouldn't podium here, in an environment like this it is going to last for a long long time. You go and bury this in your backyard, it is going to starts to degrade immediately.

Mirel is highly moisture resistance, unlike some starch based products that are very moisture sensitive. Mirel has a very high thermal stability, you can introduce boiling water into it and it still retains all of its properties. If it is in consumer product left in a car that gets hot in the summer sun, it will not deform, and will not lose any of its properties. One another important thing, especially when you are introducing a new material is how easily is it processed on existing converting equipment. Mirel is easily processed on existing converting equipment; it does not need any capital equipment changes. It can be processed on what the converters are using today, it can be fed right through with just some changes of some settings. It has a equal or better



throughput of bio based - of petroleum-based plastics and that is a very important consideration when you are trying to commercialize this product.

And lastly, the product has many properties that it can be made to be rigid, it can be made to be flexible, it can be rubbery, it can be stiff, we can make bags, we can make injection moulded hard products, we can make film, we can make cards. So, given all of these properties, we have a broad commercial applicability of Mirel. Because it can be processed with existing converting equipment and because we have a wide range of processing technologies, there is strong vertical market applications for Mirel.

So why do customers want to buy Mirel? What is the Mirel value proposition. Well, first of, it does reduce petroleum use. There are many fronts today looking to seek for replacement of bio-based fuels or bio-based content, it needs legislation for example, many areas are abandoning plastic bags, it improves existing products, it can provide faster biodegradation, especially in take for example in the composed bag market. There is an issue that, they need these composed bags biodegrade faster and faster. Our products will improve that and produce faster biodegradation while producing also better physical properties. But in addition, we can create many new products.

We can create mulch film for agricultural growers, that biodegrade in the field therefore eliminating the need to bring in labor at the end of the growing season to gather up all of the mulch film that is being used and then having to pay to dispose of that at the end of the growing season, you can till Mirel into the soil, it will biodegrade by the time you are ready to plant, it will have been gone. We have applications for biodegradable planters, biodegradable clips, we can produce bags that are suitable for home composting. There are applications for shoreline restoration that could not be done with the petroleum-based plastic and there are many many other applications.

So, let us look at the market from Mirel bioplastics. Today there are 540 billion pounds of plastic produced a year. Most of that winds up in landfills. Metabolix with our initial target market with our three processing technologies for sheet, film and injection molding, we see a target market for six main areas of greater than 2 billion pounds. We have applications today for agriculture and horticulture, we have applications for composts bags, we have many marine and aquatic applications, we have applications for numerous consumer products and business equipment and of course huge market potential for food and non-food packaging.

We have earlier adopter customers, we have numerous customers in each of these areas across all of these target markets and across all of our existing processing technologies Ball Horticulture produces a soil plant wrap that also holds ink and can enhance marketing for those types of applications. Heritage is a leader in the compost bag market, we have consumer products with [new] rubber made, today they are producing a pen, this is a pen right here that is biodegradable. This is made with new rubber made through their paper make division.

There are Target gift cards, Target was one of our of early adopters to produce gift cards made of Mirel, we have a Labcon and Pharmafilter that we are shipping product to, that produce business equipments and then as we expand this and look at this, there are new technologies, we're working on and will be delivering in the areas of foam, non-woven, non-wovens are like diapers and swiffers and filter type materials. There is blow molding applications and there are numerous latex applications, so as we expand these technologies, we're expanding this target market.

So, if we look at our customer mix, we have a high grade of customer mix. We have a large pipeline; we see significant demand for Mirel. We have over 3000 potential opportunities in the pipeline, of those we have selected about 100 core prospects that are in various stages of product development that of these we expect to see conversion of about 50% to get to base opportunities for our Clinton 1 facility of 40-50 target customers. So what- we got very robust customer development pipeline, the typical of sales cycle in this industry, a customer development cycle is probably about to nine to 15 months for the time a customer says, I want you to develop this product to the time we do develop it. We are introducing new material into this market, so it is a new material for biodegradable plastic of Mirel and that takes additional time to get through these initial sales cycles.

There is a process of product qualification, then we have the brand managers need to manage their supply chain development, they need to go through market testing and through product placement. And this as we're introducing new material for the



market, that means understandable to see that, that this takes a bit longer than a typical plastic industry development cycle just as brand managers are introducing new product and want to make sure that it is what they want and that it is a strong product for them and for the purchasers.

We currently are projecting that we will be moving into the commercial phase of our arrangement with Archer Daniels Midland to the first commercial sale around mid-year of this year. We are pricing the product at [225 to 275] a pound. This is discussed at all stages of development. The length of time that takes to introduce this new product is not a matter of price negotiations, it's a matter of product development and supply chain management, we have lead all of our conversational price development and we have seen more than enough demand at these prices to be able to sell out the Clinton facility.

We currently expect to reach capacity of the Clinton 1 facility in mid 2013. So this is a picture of our facility, this is our first commercial manufacturing facility. It is built on 30 acres in Clinton lowa. It is, initial design capacity of 110 million pounds of \$275 million in revenue. It is built on a platform to expand four times that capacity and if you see in this picture here between the buildings you'll see some open space and that is the areas where we will be able to expand the facility. If we look at the initial cost of this, a significant cost is been made in building and infrastructure and a base to be able to expand at this facility, so the expansion of this facility will be a less cost than what the initial capacity design is. We have rapid deployment and continued advancement of the Metabolix Mirel technology going on and we will be implementing that as we expand the facility.

So to wrap up on Telles, Telles which is the name of the joint venture we have with Archer Daniels Midland. We have established this joint venture in 2006. Metabolix at this phase it is providing sales and marketing and product development to the joint venture. Archer Daniels Midland is building the manufacturing facility, is paying for the manufacturing facility and is running the manufacturing facility. The joint ventures sells Mirel, has a operating cost, buys the raw material from Archer Daniels Midland at a cash cost to basis plus a small uplift, will have pay for its sales and marketing as product development and will have an operating income that is shared 50-50 between Metabolix and ADM, because ADM has taken the financial risk of commercializing Mirel, because ADM is building this manufacturing facility and putting up all the capital for that.

The payback of that build of capital is being paid back interest free on an accelerated basis from the first profits of Mirel. Once those first profits of Telles have gone to pay of the manufacturing facility, then the remainder is split 50-50. All the while Metabolix will be receiving a royalty of \$0.10 to \$0.12 per pound of every pound sold of Mirel even during this commercialization phase.

We have completed construction of our first commercial facility. It started up, we're proven that this technology can be scaled to commercial level. We have signed up a diversified portfolio of numerous early adopter customers, and we have received food grade approval for injection molding and thermal forming. So if we look at where our mile stones going forward are, of course to sign up new customers in 2011 to obtain additional food grades for film and foam, to build production and sales design capacity of the initial plant which we expect to sell out by mid 2013. We are continually reducing our cost based and expending our margins and we plan to execute our plant expansion which is currently being analyzed today.

So if we look, that's it for the Telles and the Mirel, we look at other platforms of industrial chemicals we're very excited about the progress we made for industrial chemicals; we're very excited about the potential for those. Our goal is to replace petroleum derived chemical with renewable products. The platform is based on the Metabolix core strengths advanced engineering strains, PHA compositions, we have a highly efficient scalable fermentation process and we have a single step recovery process, high conversion yield requiring only minimal work up.

Our initial focus for this it is on C4 chemicals, about an \$800 million market, targets are being expanded for that. If we look at the industrial chemicals, our initial targets are identified. Our technology development is moving very well with this. There are three main products we are looking at here, GBL which is, which addresses areas in solvents and personal care, our fermentation is scaled up, our test product, we expect to be customers in the first quarter of 2011, our recovery design is being optimized and this provides attractive returns when petroleum is trading at \$60 to \$70 per barrel.



If we look at BDO, which has applications in fabrics and engineered resins, GBL is part of the BDO this are - expect attractive returns when petroleum is trading at \$90 to \$100 a barrel and acrylics, which are in paint and codings and super absorbents, a proof of concept is being demonstrated there. We expect attractive returns at [\$90 million to \$100 million] per barrel. That is an \$8 billion industry, we see the BDO industry at about \$2.5 billion and the first one we are going after is about \$800 million. We have business and partnership models being evaluated for each of these stages and are working to advance those.

If we look at our last, our crop-based businesses, this is where instead of going through a fermentation process to sunlight, water and CO2, we can produce PHA directly in the plants themselves. This picture in the lower left hand is an actual photograph of a leaf of the grass and you can see the yellow parts of that photo are the actual plastic. So through the genetic transformation, what this does it eliminates a whole fermentation process, the need to convert sugar into PHA and recover it, we will just grow the crops and then recover. It is a low cost recovery for chemicals and plastics, it provides further upgrading options for fuels and residual biomass can be used to heat or power.

So if we look at Crop-based businesses, existing fossil fuels for production of plastics and chemicals is through exploration, refining producing the olefins and converting that. With the Metabolix type of engineering you reduce those steps. It provides step change in the economics for production of plastics in chemicals and it provides high return into an integrated bio refinery. If we take an example here of a camelina, camelina could be produced today if you grew 1 million acres of camelina, it will produce \$110 million of bio diesel, it will produce \$115 million of meal for a value of that crop of \$225 million.

If you use the Metabolix enhanced industrial camelina, you now are producing a bio plastic of an additional \$400 million, you still have your same bio diesel value of \$110 million and some additional fuel. You are almost doubling the value of that crop. These are new markets for farmers, provides new revenue sources for them and attractive, very attractive returns per acre. We have had our first field trial successfully conducted in 2010.

So if you look in summary for Metabolix, we have multiple platforms addressing large markets, we have a growing market, it is driven by consumer awareness and by public policy, we are the leader in bio-based biodegradable plastics. Our initial platform is in commercial operation, product is being shipped to the market today and we have a very strong IT science platform intellectual property protection. We have over 600 patents in that location today, crossing the spectrum of production from gene modification to fermentation to recovery systems to specific product applications.

We have a clear defined business strategy. We have a very experienced management team and we have a very strong financial position. We have, I believe, we believe we have adequate cash to advance the science that we are working on today that we believe that the development that we need to do is sufficient to be done with our cash and any additional cash would be opportunistic for expansion on our behalf. To that point I think I had some, I have actually gone over a couple of minutes here, so we have a breakout session in the room next door and I'm happy to take some questions there.

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