

# RangeView

FALL 2010

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RangeView

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## Solar future shines bright

### New solar module plant moves Minnesota toward increased use of solar electric generation power

Solar power is ready to shine on the Iron Range. In early March 2011, Silicon Energy MN, LLC, will begin producing four-foot-by-four-foot solar modules in a new 25,000 square-foot manufacturing facility at the Mountain Iron Renewable Energy Park.

Developers say the high-quality solar panels are as resilient as the Iron Range.

"We think the Iron Range is a perfect place for manufacturing this type of product," said John Carroll, vice president of Newport Partners of Irvine, California, partial owner of the project. "When I think of the Iron Range, I think of a place that reminds me of being tough and resilient, and that's what this product's characteristics are all about."

The high-performance modules are perfectly suited to Minnesota's sometimes harsh winter environment, according to Gary Shaver, Silicon Energy president.

"Our modules are very rare in that ours are glass-on-glass frameless construction," said Shaver. "Very few manufacturers in the world are doing that. Most are using framed glass-on-plastic modules. The construction of ours gives us some real advantages in the protection of cells, structural strength and the ability to shed high winds and snow load."

Initially, 15 employees will be hired to work one production shift at the plant. As additional shifts are added, five to seven employees will be added for each shift, said Shaver.

Projections indicate that within four years, approximately 107 spin-off jobs will be created from the solar installation, electrical and supply chain businesses that relate to the plant.

A \$1.5 million appropriation from the Minnesota Minerals 21st Century Fund and \$3.6 million legislatively redirected from a property tax relief fund to fund cooperative renewable energy projects between Iron Range Resources and local governments, are helping support the \$7.1 million project. Advancing the development of renewable energy projects within the Taconite Assistance Area and creating new renewable energy-related jobs, is

a goal of Iron Range Resources.

The project places the Iron Range on the cutting edge of a rapidly growing industry.

During 2009, the solar industry grew by 37 percent and created 17,000 new jobs in America, according to the Solar Energy Industries Association (SEIA). By 2015, the industry may support 440,000 domestic jobs.

Minnesota currently has about two megawatts of installed solar capacity. California, the nation's solar leader, has more than 528 megawatts of installed capacity.

"To be involved in the manufacturing of an American product that can be sold all over the Upper Midwest and to be able to get in on the ground floor of a major push in Minnesota to increase the use of solar is huge," said Gary Cerkenik, a Mountain Iron Economic Development Authority consultant. "The key step is that we're building something that is going to become increasingly important to the Minnesota economy."

Industry growth is tied more to state incentives and policies than solar resources, according to the SEIA.

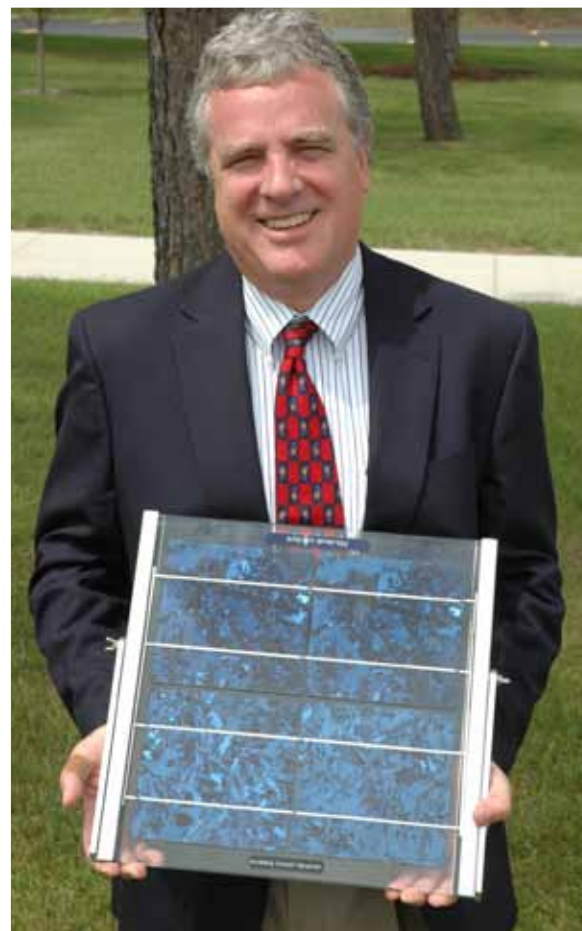
"The solar resource in Minnesota is comparable to Sun Belt states, but

**"We think the Iron Range is a perfect place for manufacturing this type of product."**

*—John Carroll, vice president of Newport Partners*

the reason you haven't had much solar is that there hasn't been much in terms of state or utility incentives," said Carroll. "We see a big untapped market in Minnesota that has a lot of catching up to do with the rest of the country."

Legislation authored in 2010 by Senator David Tomassoni,



John Carroll, vice president of Newport Partners, holding a solar panel similar to the ones they will produce in their Mountain Iron manufacturing facility.

Representative Tom Rukavina and signed by Governor Tim Pawlenty, appropriates \$21 million from an Xcel Energy Renewable Energy Fund for consumer solar rebates in the Xcel Energy service territory.

Coupled with additional utility and federal incentive programs, residences and small businesses within the Xcel Energy service territory are primary beneficiaries of the legislation and would pay about 30 percent of solar module installation costs.

Silicon Energy opened its first solar module plant near Seattle, Washington, in 2007 and production began in 2009 after the state began offering incentives to homeowners and businesses.

"The Iron Range is a perfect fit for our product," said Carroll. "We know the product will do well in Minnesota, and there's a lot of technical talent on the Iron Range we plan on tapping into."

Silicon Energy's expansion to Mountain Iron has already generated inquiries from two additional renewable energy companies interested in expanding to the energy park, said Cerkenik.

Cerkenik credits the Mountain Iron Economic Development Authority, Tomassoni, Rukavina and Iron Range Resources with supporting the project, which took more than two years to develop.

"It's a lesson in economic development," said Cerkenik. "Projects like this are complex, but you just have to stay focused on the needs of the businesses you are recruiting."

# Dear RangeView Readers:



It's encouraging to see Northeastern Minnesota's loggers looking to the future.

In spite of the extremely difficult times that our region's loggers have faced in recent years, you'll read in this issue about the optimism that loggers hold for the future.

Although the nationwide housing slump resulted in the shutdown of oriented strand board plants in the region and forced some long-time loggers out of business, the resourcefulness of loggers, the forest products industry and economic development organizations are creating the seeds of a new industry.

More than two dozen northeastern Minnesota loggers have diversified into the production of biomass.

By going "out on a limb" and making significant investments in biomass producing equipment, these intrepid loggers are generating

a new product, revenue and jobs for their companies and the region.

Loggers like David Haley from Bigfork tell us that anything he can do to be efficient, he will do.

To assist the forest products industry and help build energy efficient communities, Iron Range Resources is also making some new investments.

In addition to assisting loggers in acquiring new equipment, providing loans to construct biomass boilers at the Hibbing and Virginia public utilities and providing support to help grow the renewable energy industry, Iron Range Resources is assisting communities in the advancement of viable community-based renewable energy projects.

The agency, through a special account established in the Taconite Environment Protection Fund, is dedicating a legislatively-allocated \$5.9 million for cooperative renewable energy projects between Iron Range Resources and local governments. The \$5.9 million comes from a one-time redirection of 15.5 cents

per ton of the Taconite Production Tax.

Like loggers, who with some risk have invested hundreds of thousands into equipment for biomass production, the agency is dipping its toe into community-based renewable energy development.

A few weeks ago, the Iron Range Resources Board approved a series of grants from this special renewable energy account to jump-start community-based renewable energy projects in Taconite Assistance Area communities.

The projects include solar photovoltaic module installation at the City of Hibbing Public Library and recycling center, the installation of biomass boilers at City of Orr facilities and a photovoltaic charging system for electric car usage in the City of Tower.

With these projects, Iron Range Resources is assuming a lead role in supporting community-based renewable energy projects within the region.

Investing in these projects is a

short-term calculation that I believe will lead to long-term rewards.

As our loggers look to the future of renewable energy, Iron Range Resources is looking to the future of our forest products industry and communities.

We will continue to provide support for the forest products industry. We will champion the development of healthy, energy efficient communities. And we will encourage the responsible use of our region's natural resources to make northeastern Minnesota an even better place to live, work and recreate.

Sincerely,

Sandy Layman  
Commissioner

## CLIPS



Logs being chipped by Haley Logging Company are destined for Laurentian Energy Authority.

### Timber producers hold annual exposition

Northeastern Minnesota loggers, forest industry officials and vendors celebrate the 57th annual North Star Expo at the Itasca County Fairgrounds in Grand Rapids on September 17-18. The event is designed to expose the logging community to the latest advances in equipment and safety. The expo includes logging equipment displays, workshops, loading and logging competitions, a draft horse demonstration and a mini-loader for the kids. Admission is free. The event is open to the public. Further information is available through the Minnesota Timber Producers Association at 218-722-5013.



Workers prepare forms as part of the expansion at the Mesabi Community & Technical College in Eveleth.

### Mesabi Range Industrial Maintenance Technology

Industrial Maintenance Technology students at Mesabi Range Community & Technical College are gaining new learning space. A \$5.4 million, 12,800 square-foot expansion at the college's Eveleth campus will feature two flexible high-bay laboratory spaces, two classrooms, student lockers and showers, social learning areas and faculty offices. "It will serve just about all our technical programs and allows much more efficient use of all our equipment and space," said Tina Royer, provost of the college. The expansion is scheduled to open in August 2011. Funding was approved as part of the state's 2010 bonding bill.



Site work is underway at the Mountain Iron Renewable Energy Park.

### Renewable Energy Park taking shape

A 28-acre Renewable Energy Park at Mountain Iron is taking shape. Located north of Highway 169 near Mountain Iron city offices, the park is being constructed to attract businesses that specialize in the production of sustainable and renewable energy products. Wood pellet producers and wind energy manufacturers are potential tenants.

Iron Range Resources provided a \$300,000 grant to the City of Mountain Iron to extend infrastructure to the park. The Minnesota Department of Employment and Economic Development, State of Minnesota and city, also helped fund site development. Silicon Energy MN, LLC (see page one) will be the first tenant in the park.

### NE Minnesota scores high in Minnesota Cup

Six innovative business ideas developed by northeastern Minnesotans are semifinalists in the Minnesota Cup competition. The Minnesota Cup competition is a statewide search for breakthrough business ideas. More than 1,000 entries were received this year in the sixth annual competition.

Three of the northeastern Minnesota semifinalists are students and instructors in the Iron Range Engineering Program. The top breakthrough ideas will be announced September 13.



## RangeView

RangeView is a publication of Iron Range Resources featuring the resources and opportunities of northeastern Minnesota. The state agency has a regional focus to diversify the economy of northeastern Minnesota.

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# Nugget plant is on a roll

Production at Mesabi Nugget increasing with equipment, process improvements

**A**t Mesabi Nugget, hot-to-the-touch, shiny iron nuggets are dropping off a conveyor system onto a stockpile at an increasingly rapid rate.

technologically-advanced process required to make iron nuggets on a commercial scale also underwent fine-tuning.

Yet, by mid-summer, production

On the open market, the nuggets would sell for \$450 to \$550 per ton.

However, 100 percent of the plant's production is being shipped by rail to Steel Dynamics, Incorporated to help manufacture high quality steel.

"The customer is screaming for more," said Hansen. "Our product quality is very good and while we are continuing to improve on that, we are focused on producing more tons."

The plant's iron nuggets replace the import of foreign pig iron to Steel Dynamics as a feed stock. Steel Dynamics also utilizes scrap metal as a feed.

"Steel Dynamics is very satisfied with the product," said Bednarz. "It melts very well. Our overall goal as a company is to not participate in the merchant pig iron market."

The ITmk3<sup>®</sup> technology utilized at Mesabi Nugget was developed and is owned by Kobe Steel Ltd. of Japan. Steel Dynamics owns 81 percent of Mesabi Nugget and Kobe Steel 19 percent.

The process combines iron ore concentrate produced at Northshore Mining Co. and Magnetation, Inc., with flux, binder and pulverized coal. After being rolled into marble-size balls and dried, the balls are fed into a 180-foot diameter rotary hearth furnace. After about ten minutes in the hearth, the melted balls become iron nuggets.

Iron nuggets are the first new product made from Iron Range iron ore concentrate in decades.

Because the nuggets are fed into the electric arc furnaces of mini mills rather than the blast furnaces of traditional integrated steelmakers, a new market for Iron Range iron ore concentrate has been created.

However, more work remains.

To become cost effective, Mesabi Nugget is seeking to maximize iron nugget production and be able to utilize iron ore concentrate from a Steel Dynamics-owned mine proposed at the site. Permitting for the mine, which like the processing facility would be located at the former LTV Steel Mining Co. site, is underway.

"We are ready to spend more money and bring additional mining investment to Minnesota," said Hansen.

Iron nuggets produced at the plant improve the productivity and energy efficiency of electric arc furnaces and are easy to transport and handle.

Steel Dynamics officials are pleased with the facility's overall performance.



A handful of nuggets ready for shipment by rail to Steel Dynamics.

To Mesabi Nugget and its owners, the sound of iron nuggets piling up is the sound of success.

Already pleased with the quality of its product, Mesabi Nugget is steadily moving toward its goal of producing 500,000 metric tons of iron nuggets per year.

"There's nothing that suggests we're not going to meet our goal," said David Bednarz, vice president of iron resources for Steel Dynamics, Incorporated, majority owner of the world's first commercial-demonstration iron nugget plant near Aurora. "This summer we've already been running 75 percent of the time which is quite an accomplishment."

Construction on the \$300 million project began in the fall of 2007. In January 2010, Mesabi Nugget produced its first iron nuggets.

Up to 900 construction workers were required to build the plant. About 80 permanent full-time employees are employed at the facility.

"We absolutely have a tremendous workforce," said Jeff Hansen, Mesabi Nugget Plant manager. "They are the cream of the crop."

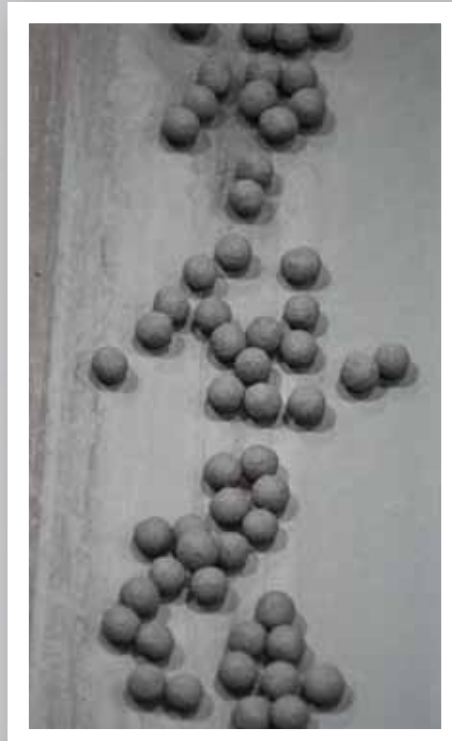
Like any project that's the first of its kind, the facility encountered some early equipment and mechanical glitches.

Conveyor systems required revamping and a key drive system needed upgrading. The

reached around 10,000 metric tons over a month-long period.

"Our goal by the end of this year is to produce up to 20,000 tons per month and then get up to the 40,000 ton-per-month rate," said Bednarz. "It's working very well early in the game."

Iron nuggets produced at the plant are made from northeastern Minnesota iron ore concentrate. The nuggets are 97 percent metallic iron.



Ore concentrate, flux, binder and pulverized coal is rolled into balls, dried and sent to the rotary hearth furnace.



Conveyor belts move green pellets to the oven for drying.

"In our Ferrous Resources platform, we continue to make progress at our Mesabi Nugget plant in Minnesota," Keith Busse, Steel Dynamics chairman and chief executive officer said in the company's second quarter earnings report. "During the quarter we corrected materials handling and mechanical issues at the plant by replacing or upgrading equipment. We are pleased by the results of our continued ramp-up efforts, as the process is performing well in terms of metallization during periods of production."

By year's end, Busse expects production to increase significantly.

"We continue to expect to reach production rates of approximately two-thirds of the facility's estimated annual capacity of 500,000 metric tons by the end of this year, forecasting a significant increase in production in the second half," Busse said.

Iron Range Resources provided \$16.5 million in financing toward construction of the facility. The Minnesota Department of Employment and Economic Development provided \$10 million through the Minnesota Minerals 21st Century Fund.

The ITmk3 process utilized at Mesabi Nugget, with lower carbon-dioxide emissions and capital investment, is seen as an environmentally-friendly process that can be used to grow steel industries in developing countries.



# Renewable fuels frame the Minnesota forest industry

*Opportunities to produce additional biomass, generate biofuel products*

**F**or 86 years, the Haley family has been logging the woods of northeastern Minnesota.

At Haley Logging Company in Bigfork, David, Dean and Jeff Haley are following in the footsteps of their grandfather, father and great uncle in supplying wood to buyers such as Blandin Paper Company, Sappi Fine Paper and Boise.

But as the nation's housing market went into freefall, the Haley brothers looked into the future and realized they needed to diversify the company product line.

About a year ago, with financial assistance from Iron Range Resources, Haley Logging Company purchased a \$345,000 wood chipper to begin producing biomass.

Biomass is a renewable energy resource composed of woody residue, food crops, grassy or woody plants, oil-rich algae or organic components, or municipal and industrial waste.

Since acquiring the wood chipper, Haley Logging has supplied about 15,000 tons of biomass to the Laurentian Energy Authority (LEA). The LEA operates biomass boilers at the Hibbing and Virginia public utilities.

To survive the housing downturn, expand operations and meet the needs of a growing renewable fuels industry, the Haley's are among an estimated 25 to 30 loggers in northeastern Minnesota that are now producing biomass.

With an expansion of the biomass market forecast, forest industry officials and loggers say biomass and biofuels production could lead to the creation of a new industry in northeastern Minnesota.

"As the timber industry transitions, these new renewable, green products could become another primary forest products industry," said Scott Dane, Associated Contract Loggers & Truckers executive vice president.

## Loggers' perspective

As the housing industry and the demand for boards and sheathing plummeted, so did the finances of loggers.

An estimated 50 of the state's roughly 300 loggers have gone out of business since 2007 due to the housing downturn and national recession. About 80 percent of Minnesota's loggers are in northern Minnesota.

To diversify and boost their chances of survival, some turned to biomass production to supplement traditional logging operations.

"One of the main reasons we got into biomass is that we were already doing half the work, so why not just go all the way and



"Red" Haley, 2nd generation logger/owner of Haley Logging Company, shows off the new wood chipper used to convert logs up to 24" into wafer sized biomass.

generate a new product?," said David Haley. "The board market was going south, so we thought it would be wise to expand our market. If a logger can find anything that will help you with improving efficiency, you have to do it."

Adding biomass production to its product line created two new jobs at Haley Logging and preserved two additional jobs within the logging operation.

"It's kept the guys busier," said Haley. "We'd be really slow without it."

Peter Wood, a logger from Canyon, says there is a plentiful supply of biomass, however harvesting the product is not as easy as some might think.

"Everyone thinks you can make out real good, but you have to collect it and compete with other substances like oil and coal," said Wood. "And there are a lot of environmental regulations that make it difficult to harvest."

When oriented strand board plants in the region closed due to the nationwide housing downturn, many loggers turned to biomass production for survival, said Wood.

"For some people it was do this or have nothing," said Wood. "People should understand that we're not mining gold, we're mining the bottom of the barrel."

A statewide mandate to produce 25 percent of Minnesota's energy from renewable sources by 2025, championed by Governor Tim Pawlenty and supported by the legislature, is expected to fuel industry growth.

Clinton Cook, owner of Greg Cook Logging, Incorporated of Bigfork, says the renewable energy

mandate is a positive sign for an industry that's been struggling.

"That 25(percent) by 2025 law is going to help keep the biomass production there," said Cook. "And you keep hearing rumors about new (biomass) boilers being built."

Cook received financial assistance from Iron Range Resources in 2009 to buy an \$84,000 slasher and loader to expand into biomass production.

"It's a really good thing in that it makes the job site look cleaner and utilizes a resource," said Cook. "It's the right thing to do for our nation, but obviously the guys who do it need to be able to make a dollar."

The 25 by 2025 mandate is a major driver in projected growth.

"The real reason for people getting into biomass production is governmental policy," said Wayne Brandt, executive director of Minnesota Forest Industries. "We've been in the business in a big way for a long time. Back in the 1970s and 1980s there were a lot of schools doing it under the Rudy Perpich administration. Today, the primary driver for renewable energy is at the state level."

Within the Taconite Assistance Area of northeastern Minnesota, Iron Range Resources supports the region's logging industry and the responsible use of natural resources to produce renewable energy.



Wood pellets are another form of biomass that is popular for heating and is "carbon-neutral."

## Biomass on the upswing

Expectations are that biomass production in northeastern Minnesota and across the state will increase in coming years.

Iron Range Resources financially supported the LEA project and has provided low-interest loans to loggers for equipment acquisition. The agency has also backed solar,

# future of northeastern

## tion expected to grow

wind, and wood pellet developments, the creation of a renewable energy park in Mountain Iron and expanded use of a wood yard in Mountain Iron.

Iron Range Resources and its economic development partners are actively working to attract additional renewable energy businesses and jobs to the Taconite Assistance Area.

Iron Range Resources' programs that allowed the Laurentian Energy Authority to acquire additional biomass and expanding a low interest loan program to provide loans to loggers for equipment acquisition, have been of significant assistance to the northeastern Minnesota logging industry, said Dane.

Wood pellet plants, facilities that would produce wood cubes as a fuel to taconite plants, wind blade manufacturers, potential biofuels production and re-uses for the Ainsworth oriented strand board plants in Cook and Grand Rapids, are being pursued.

"Iron Range Resources has proven to be an active partner in supporting the timber industry through these tough economic times," said Dane. "Biomass is a renewable resource that creates green jobs, and its contribution to the economy has potential to produce environmental and economic benefits that will continue to benefit the region."

### Near-term prospects

At least three companies that make products from renewable forest materials are interested in locating manufacturing facilities at the Itasca Eco Industrial Park in Grand Rapids, according to Jeff Borling, director of Itasca Business Development for the Area Partnership for Economic Expansion (APEX).

The Itasca Economic Development Corporation, which acquired the former Ainsworth oriented strand board property, plans to turn the facility into a site for green economy businesses.

"We have had eight or nine company leaders who have expressed interest and visited the park," said Borling. "Of those eight or nine, we have a building products manufacturer, a wood pellet company and a biomass boiler manufacturer who are extremely interested in locating at the site."

Companies interested in locating within the park have a number of occupancy options including leasing space, purchase, or a lease with an option to purchase, said Borling.

Businesses that specialize in growth industries such as biofuels and advanced woody biomass production, are being targeted.

Redevelopment of the site could create 175 jobs within the

park and more than 300 indirect jobs.

Another three biomass-related companies are discussing potential location at the former Ainsworth plant south of Cook, said Steve Hill, president of Hill Wood Products in Cook. Hill Wood Products in December 2009 acquired the former oriented strand board (OSB) facility.

"We are looking at biomass projects other than wood pellets," said Hill. "Right now, we are fielding offers from three different biomass-based companies to partner with us."

### The road ahead

Currently, the primary markets for biomass within northeastern Minnesota are the Laurentian Energy Authority, Minnesota Power generation facilities, Sappi Fine Paper in Cloquet and a Georgia Pacific mill in Duluth.

However, timber industry officials are confident that in coming years, new biomass or biofuel operations will be developed.

"I think we will see incremental development of the biomass market," said Brandt. "But since LEA came on line, we haven't seen a significant increase in consumption. We will clearly see renewable energy developments and increased demand, but I don't see a free standing green field operation on the horizon for several years."

Access to capital, timber availability and loggers' profit margins are major challenges, said timber officials and loggers.

"To start a biomass operation, you need a lot of capital, which means you need to be a big company with financial resources," said Brandt. "The next significant user of biomass could be Keetac. If the Keetac expansion goes forward, they would be using a couple hundred thousand tons of biomass per year to fire their kilns."

"An ample supply of timber needs to be available to ensure work for loggers and industry growth," said Dane.

"The current cost structure is marginal," said Dane. "One of the greatest things that could be done to jump start biomass is to establish a cost structure that supports the acquisition of equipment and development of the industry."

Beyond biomass, development of a higher value product such as biofuels, is the long-term goal, said Dane.

"We've already picked the easy hanging fruit," said Dane. "Now, in order to have a strong bioenergy industry in Minnesota, we will have to go to a higher value product and look at the next generation of bioenergy beyond a wood stove."



Virginia's Laurentian Energy Authority biomass-fed steam and power plant.



Doug Ganoe, Virginia Public Utilities, shows the feed augers moving chips into the boiler.



Chips are fed from an overhead storage bin and moved to an LEA boiler.



Biomass piles are mixed and then loaded in trailers for transportation to the LEA facilities.

# Giant plans for Giants Ridge

*New recreation, housing, resort renovation initiatives underway at Giants Ridge*

Minnesota's top golf and ski resort is about to become even better.

Giants Ridge is planning to develop new forms of family recreation, high-end housing, a new chalet that will also serve as a conference center and a pedestrian-oriented village.

"What we are doing is following through on a master plan that will increase development and the economic impact that Giants Ridge has on the region," said Linda Johnson, Giants Ridge general manager. "Our goal is to make Giants Ridge one of the nation's best places to live and play."

Since Iron Range Resources acquired Giants Ridge in 1984, the agency has invested more than \$32 million in the facility. In addition, more than \$64.4 million in private investments have been made by developers to construct single-family homes, townhomes, villas and condominiums.

However, bigger plans are in store.

During the 2010-2011 winter sports season, Giants Ridge will open a snow tubing park, the only tubing facility of its kind in north-eastern Minnesota.

wooden arch Mesabi Trail bicycle and pedestrian bridge will be lifted into place across the narrows of Wynne and Sabin lakes this fall.



*Rip-rap is put in place around the abutment for the Mesabi Trail bicycle and pedestrian bridge.*

The Mesabi Trail is a 132-mile long bicycle and recreation trail that now extends from Grand Rapids to Giants Ridge. When complete, the trail will extend to Ely.

"In addition to connecting the Giants Ridge base with Voyageurs Retreat, the bridge will be a dramatic resort focal point and a vibrant

"We consider this to be a 'warm bed' development in which the structures will be used a greater percentage of the time than a single-family summer home," said Jim Plummer, Iron Range Resources Real Property Coordinator. "The Residence Club is an example of where we have met our Master Development Plan goals of carefully dividing the 1,800 acres owned by Iron Range Resources into 32 parcels that are available for private development."

At the Giants Ridge complex, future plans include construction of a new energy efficient 48,000 square-foot chalet.

The chalet would include an event/conference center that could also be utilized for meetings and weddings. It would be heated and cooled by a geothermal heating system and electrical power would be provided by a photovoltaic module system. It would be built on the footprint of the existing chalet and sports dormitory. Construction would begin in the spring of 2013.

"Long-term plans are to develop a pedestrian oriented village that creates a sense of place," said Plummer. "Overall, our plan is to develop up to 450 lodging units in the village at Giants Ridge that are environmentally friendly and retain the north woods character."

Giants Ridge in 2010 could have a \$50 million economic impact on surrounding communities, according to a THK Associates Economic Impact Study.

gathering place for bicyclists and all resort guests," said Johnson.

Not far from the bridge, construction is advancing on The Residence Club at Giants Ridge, a new upscale 27-unit member-owned fractional ownership community. One of the 3,300 square-foot homes within the community was completed this summer. Development of a second home is underway. Buyers of the homes will each own a deeded 10 percent undivided interest in one of the homes, but will be able to occupy any available Residence Club home.



*A snow tubing park will open at Giants Ridge in December.*

Snow tubes specifically designed for the hill will be provided to customers as part of the \$15 ticket price.

"Snow tubing has become really popular with families and groups across the country," said Johnson. "What we plan to do is to start with three or four runs using some of our existing ski hill base. There will be rope tows that will get the tubers back up the hill. It's a lot of fun and will be a great option for families and people of all ages."

To create additional recreational opportunities, a 140-foot long,

The bridge also provides a connection between the Giants Ridge base area and the Voyageurs Retreat housing development on the east side of Wynne and Sabin lakes.



*An artist's drawing of one of the 27 units planned for The Residence Club at Giants Ridge.*



*Conceptual design of the proposed 48,000 square foot Giants Ridge chalet/event/conference center.*



## BOARD MEMBER PROFILE

# Shelley Robinson

In the late 1970s, a majority of high school graduates in the western Montana logging town of Seeley Lake went to work for logging companies or paper mills rather than dash off to college.

However, Shelley Robinson, born and raised in the small town, figuratively ran her way into college.

"As a senior in high school, I was the Montana state champion in the 100 and 200 yard dashes," said Robinson, a citizen appointee to the Iron Range Resources Board. "My fastest time in the 100 was 10.9 seconds and in the 200 it was 22.9 seconds."

Robinson's foot speed made her third fastest high school female sprinter in the United States in 1978.

It also earned her a full-ride scholarship at the University of Montana.

"My dad was a logger and my mother stayed at home," said Robinson, who now lives in Hibbing. "There were limited opportunities for kids in the small

town we lived in. Track was just really something for me to do. What it ended up doing was allowing me the opportunity to attend college, which financially or conceptually, very few kids who lived in the town ever did."

Robinson graduated magna cum laude from the University of Montana with a double major in behavioral science and psychology and a minor in special education. She also holds a master's degree from St. Cloud State University in education leadership, a superintendent of principal's license, and a doctorate degree (ABD) in organizational management from Saint Mary's University.

Robinson's first job was on an island in Alaska, working with a student who had suffered a traumatic brain injury.

Naturally, she started a youth track program.

"When the tide went out, we could run track," said Robinson.

"When the time came back in, we couldn't run."

Robinson moved to the Iron Range when her husband Josh accepted a special education job with the state.

"We were stunned when we moved here," said Robinson. "At my high school in Montana, we rode 70 miles one way to school and here we had all these schools not very far apart. None of the high schools in Montana had swimming pools, but here, every school had a pool. And when we saw the Hibbing High School auditorium, I had never seen anything so beautiful."

Robinson was, and remains, impressed with the Iron Range.

"I have never seen a place like the Iron Range," said Robinson. "The people here make things happen and it's a place where there are plentiful opportunities for citizen involvement. I would live no other place. I just love the strong spirit of the Iron Range and the people who live here."



### About Shelley Robinson

Shelley Robinson is executive director of Range Center, Inc., a Chisholm-based private non-profit organization that provides comprehensive programs and services to adults and children with developmental disabilities.

Robinson has been a citizen member of the Iron Range Resources Board since 2007.

"My role on the board is to maintain that community connection, not just with human services, but the citizens of the Taconite Assistance Area," said Robinson. Her community connections include: United Way of Northeastern Minnesota, Hibbing Housing Authority, Ironworld Development Corporation, Central Iron Range Initiative, Mesabi Range Community & Technical College human services program and Hibbing Area Chamber of Commerce. She also teaches undergraduate statistics and research methods courses for Bemidji State University and the College of St. Scholastica and serves as an adjunct instructor for Bethel University's graduate program in organizational leadership.

Robinson sees herself as a person who works behind the scenes to advance economic growth.

"If you want economic development, you need to do something about it as far as being involved as an individual," said Robinson. "I think the best thing you can do to contribute is to make yourself competent and do what you say you will do."

## Sold-out on solar

*New solar photovoltaic technician program promises bright future for graduates*

Only days after completing Hibbing Community College's Solar Photovoltaic Technician Program, Mike Prada set his sights on someday starting his own solar panel sales and installation business on the Iron Range.

"The big thing is to get homeowners educated about solar energy and that it's something they can do," said Prada, a 2002 Hibbing High School graduate. "There's a lot available right now in rebates, and in Minnesota, there's as much peak sun to utilize as there is in Florida."

The 25 credit program, which began in the Fall 2009 semester, instructs students in the construction, installation and operation of solar panels. Nine students enrolled in the first-year program.

"All of the students seemed to like the program a lot," said Jesse Dahl, program instructor. "After the school year was over, we received a lot of messages from students thanking us for the education they received."

Rapid growth within the solar industry is creating job



Jesse Dahl, Hibbing Community College solar photovoltaic instructor, holds solar photovoltaic units used in the program.

opportunities for well-trained workers, said Dahl.

"Every year it's getting better and better," said Dahl, a native of Tower and a Hibbing Community College graduate who worked as a solar panel installer in the Twin Cities. "More and more homeowners are looking to install solar systems. Places like the off-highway vehicle park in Gilbert and the St.

Louis County annex building in Hibbing are installing large arrays. In the metro area, solar growth is unbelievable."

Students enrolled in the one-year program study electrical math applications, DC electrical theory, AC/DC electrical circuits and calculations, residential wiring and photovoltaic theory,

design, installation, maintenance and troubleshooting. The course complements the college's two-year Electrical Maintenance and Construction program.

"A student can come in here and by taking the solar photovoltaic technician program and the electrical maintenance and construction program, have a really good career

start," said Dahl.

The solar program is one of a variety of energy generation programs being offered at area community colleges. "We as a group of Northeast Higher Education District (NHED) colleges talked several years ago about offering alternative energy programs," said Michael Raich, Hibbing Community College dean of student services and academic initiatives. "Our obvious niche was to tie the solar program with our electrical program."

Iron Range Resources, through the Iron Range Higher Education Committee, is supporting energy and workforce development programs at NHED colleges.

"Iron Range Resources has been instrumental in helping our colleges with resources," said Raich. "The agency's help in funding some of the equipment that we need and with start-up costs has been important, because these programs are not inexpensive to operate."

For additional information visit [www.hibbing.tec.mn.us](http://www.hibbing.tec.mn.us)

# Scope out the Range

Abundance of public land makes area's hunting opportunities unique

**A**mong outdoors people, it's often referred to as "The Big Woods."

Northeastern Minnesota's millions of forested acres, much of it public land, makes the region a hunter's dream.

"People come up to these towns and see places like Orr and Ely and just say 'Wow!'" said Tom Rusch, a Minnesota Department of Natural Resources Area Wildlife manager in Tower. "They see that these towns are neat places and that this is the kind of place where you can hunt and fish."

**"... what really sets us apart is the public land base ... It is three-fourths public land, which creates access that you don't find across the nation."**

*-Tom Rusch, MN DNR Area Wildlife manager*

Few regions in the state or nation offer hunting opportunities like northeastern Minnesota.

Whether in search of white-tailed deer, American Black Bear, sharptail or ruffed grouse, moose, woodcock, waterfowl, snowshoe hare or other species, northeastern Minnesota is prime hunting territory.

"We have a variety of species to hunt, but what really sets us apart is the public land base that's unique to northeastern Minnesota," said Rusch. "It is three-fourths public land, which creates access that you don't find across the nation."

Hunters can access millions of acres of federal and state land, tax-forfeited property managed by counties and dozens of state wildlife management areas.

"The kind of hunting we have here is primarily on public land or tax-forfeited land and it provides the kind of access that you can't find in other parts of the country," said Rusch. "There are a lot of acres... enough where you can walk all day long."

Across Minnesota, there are 58 state forests totaling 3.9 million acres, two national forests offering 2 million acres, 1.2 million acres of county and municipal public land and 1,380 Wildlife Management Areas totaling 1.2 million acres, according to the

Minnesota Department of Natural Resources.

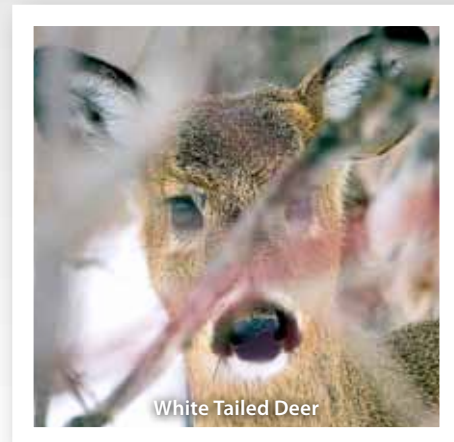
A major chunk of the state's forest base is in northeastern Minnesota.

"It's still what makes living here such a high quality thing," Jeff Lightfoot, Minnesota Department of Natural Resources regional wildlife manager said of northeastern Minnesota's public land base. "You have the woods and the lakes right in your backyard."

About 535,000 residents and non-residents of Minnesota spend more than \$494 million a year on equipment, trips and other hunting expenditures within the state, according to the U.S. Fish and Wildlife Service.

However, its northeastern Minnesota's "big woods" that is a major attraction to those seeking to "get away from it all," according to Lightfoot.

"The big thing to me is that everyone has their preferences, whether it's the prairie or the big woods or the transitions," said Lightfoot. "But in northeastern Minnesota, there are deep woods areas that hunters can get to and not encounter other hunters like in other parts of the state or country. We get a fair amount of calls from people looking for forested areas where they can get away from people."



White Tailed Deer

*Photo credit: Duluth News Tribune*

Hunting's economic impact on the region is significant, according to Doug Ellis, owner of Virginia Surplus, a clothing and sporting goods store.

"It's a major part of my business and a major part of the economy," said Ellis. "We have mining, logging, tourism and then you could say recreation, like hunting, is another part of our economy."

Among northeastern Minnesotans, hunting is a way of life, said Ellis.

"Hunting is part of our heritage and culture," said Ellis. "A lot of us who live here grew up around guns and fishing rods."

For hunters who travel to northeastern Minnesota, the big woods experience is unlike any other hunting trip, he said.

"It's a real hunt," said Ellis. "It's not like going out hunting in your backyard. Here, you have to deal with wolves and with deer that are smart, but there's always that chance of bagging a big deer."

Though deer firearm and grouse remain among the most popular hunting seasons in northeastern Minnesota, the muzzleloader (black powder) deer season has "exploded," said Ellis.

"Because of a licensing change, muzzle loading has become more popular," said Ellis. "And now, we have inline muzzleloaders that look like rifles, but are much more accurate and using synthetic powder that can shoot at longer ranges than the old black powder muzzleloaders. We've probably been selling 75 muzzleloaders a year. The licensing changes have really extended the season for deer hunters."

Long-term hunting opportunities in northeastern Minnesota are bright.

In July, The Conservation Fund, Minnesota Department of Natural Resources and Blandin Paper Company completed a forest conservation easement that protects 187,876 acres of forest, wetlands and shoreline owned by UPM Kymmene, which operates Blandin Paper.

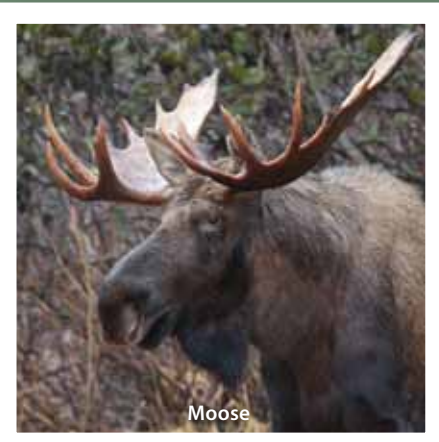
Under the \$44 million deal, the UPM lands provide public access for hunting, fishing, birdwatching, recreational activities and preserve existing hiking, snowmobile and other trails. The easement prevents development and subdivision of the lands and prohibits alteration of water channels, wetlands, streams and rivers.

Senator Tom Saxhaug and Representative Loren Solberg, both of Grand Rapids and members of the Iron Range Resources Board, were instrumental in advancing legislation that led to completion of the easement.

"Hunters will find that having additional access will guarantee their hunting on this land for a long time," said Saxhaug. "We are working hard on consolidating forest land, which will make for better forest management. With better management, we will have a healthier wildlife population."

The bottom line is that for area residents and visitors, there's no better place to hunt or simply relax, than in the forests of northeastern Minnesota.

"It doesn't matter if you have a few hours or a day or two to spend," said Ellis. "Hunting is important because it gives you a chance to



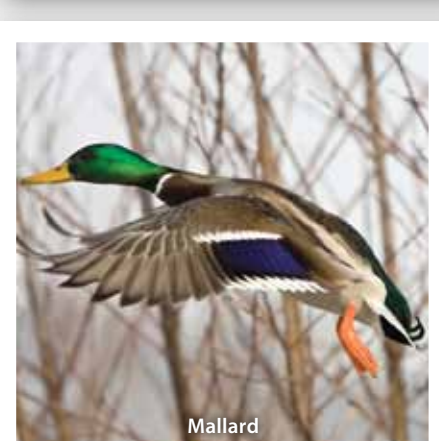
Moose



American Black Bear



Ruffed Grouse



Mallard

get out into the woods, clear your head and listen to the woods and the sounds. Hunting frees you to do that and be successful. And even if you're not successful, that's fine."

For additional hunting information visit [www.dnr.state.mn.us](http://www.dnr.state.mn.us).

## MINNESOTA HUNTING STATISTICS

Deer hunters .....	400,000 +
Grouse hunters .....	100,000 +
Bear hunters .....	15,000
Wildlife Management Areas ....	1.2 million acres
State forests .....	3.9 million acres
National forests .....	2 million acres
County/municipal lands .....	1.2 million acres

## POPULAR NORTHEASTERN MINNESOTA GAME SPECIES

Big game:	White tailed deer, bear, moose
Small game:	Ruffed grouse, sharptail grouse, woodcock, waterfowl

*Source: Minnesota Department of Natural Resources*