## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydroelectric Plants</td>
<td>2</td>
</tr>
<tr>
<td>New MMAC Members</td>
<td>3</td>
</tr>
<tr>
<td>Foote and Tippy Tours</td>
<td>4</td>
</tr>
<tr>
<td>Hydro Forestry</td>
<td>8</td>
</tr>
<tr>
<td>Recent Projects</td>
<td>10</td>
</tr>
<tr>
<td>The HIA Program</td>
<td>12</td>
</tr>
<tr>
<td>Clean Energy Goals</td>
<td>14</td>
</tr>
<tr>
<td>Trail Work</td>
<td>16</td>
</tr>
<tr>
<td>Dams as Learning Centers</td>
<td>18</td>
</tr>
</tbody>
</table>
New Members Join MMAC Team

LAST YEAR, the Manistee-Muskegon-Au Sable Coordination Team welcomed two new members and a returning member. The team helps balance healthy river systems and hydropower by overseeing the implementation process of the Federal Energy Regulatory Commission’s 40-year hydro license agreement with Consumers Energy.

Formed in 1996, the five-member team is comprised of one member from Consumers Energy, which owns the dams, and one member each from the U.S. Forest Service, Michigan Department of Natural Resources (MDNR), U.S. Fish and Wildlife Service, and the Michigan Hydro Relicensing Coalition.

Bob Stuber, who served on the team since its inception until his retirement from the U.S. Forest Service in 2015, has rejoined the team. As the new Executive Director of the Michigan Hydro Relicensing Coalition, he succeeds Jim Schramm, now the group’s senior advisor.

“Working with the coalition and MMAC Team members keeps me engaged with my profession and gives me the opportunity to work with former and new colleagues,” said Stuber, who is looking forward to his new role with the coalition.

A long-time attorney, Schramm was instrumental in forming the coalition and served as its legal counsel. He has earned national recognition as a river champ for his tireless work to restore and preserve the state’s rivers.

Patrick Ertel, Senior Resource Analyst with the MDNR, took over for Kyle Kruger, Senior Fisheries Biologist. Ertel’s responsibilities at the department include stream habitat analysis, permit/project review, and hydropower oversight. He also participates on the MDNR’s Natural Rivers Administration, a program to protect the natural quality of designated river systems, including the Au Sable and Upper Manistee rivers.

“It’s a passing of the baton,” said Ertel, who has participated with the MMAC Team for nearly five years and is transitioning into his official role on the team. “It’s part of the MDNR’s proactive succession planning,” he said. “We want to make sure that we have consistency as we make the transition.”

Kruger, who served on the MMAC Team for 18 years, has been assigned other responsibilities within the MDNR.

Scott Hicks replaces Burr Fisher, Fish and Wildlife Biologist with the U.S. Fish and Wildlife Service, who retired last spring. Hicks is the Field Supervisor for Ecological Services at the U.S. Fish and Wildlife Service’s Michigan Field Office in East Lansing, Mich.

The Field Office implements the federal agency’s endangered species, environmental contaminants and FERC programs as well as several other programs in Michigan. He’s been with the U.S. Fish and Wildlife Service for about 20 years, eight of those in Michigan.

“I appreciate the great working relationships we’ve had over the years with Consumers Energy,” Hicks said. “I’m looking forward to working with other stakeholders, FERC and the Consumers Energy staff on its Michigan hydropower projects.”

CONSUMERS ENERGY HYDROELECTRIC PLANTS

MMAC Hydroelectric Plants

Au Sable River

<table>
<thead>
<tr>
<th>Dam</th>
<th>In-service</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcona Dam</td>
<td>1924</td>
<td>8 MW</td>
</tr>
<tr>
<td>Cooks Dam</td>
<td>1911</td>
<td>9 MW</td>
</tr>
<tr>
<td>Five Channels Dam</td>
<td>1912</td>
<td>6 MW</td>
</tr>
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Manistee River

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<tr>
<th>Dam</th>
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<th>Capacity</th>
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</thead>
<tbody>
<tr>
<td>Hudeney Dam</td>
<td>1935</td>
<td>17 MW</td>
</tr>
<tr>
<td>Tippy Dam</td>
<td>1918</td>
<td>21 MW</td>
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Muskegon River

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<thead>
<tr>
<th>Dam</th>
<th>In-service</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fools Dam</td>
<td>1918</td>
<td>9 MW</td>
</tr>
<tr>
<td>Leaf Dam</td>
<td>1913</td>
<td>4 MW</td>
</tr>
<tr>
<td>Leidy Dam</td>
<td>1913</td>
<td>5 MW</td>
</tr>
<tr>
<td>Min Dam</td>
<td>1918</td>
<td>6.9 MW</td>
</tr>
<tr>
<td>Craton Dam</td>
<td>1907</td>
<td>8.65 MW</td>
</tr>
<tr>
<td>Hardy Dam</td>
<td>1931</td>
<td>5.2 MW</td>
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Non-MMAC Hydroelectric Plants

Grand River

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<thead>
<tr>
<th>Dam</th>
<th>In-service</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wacker Dam</td>
<td>1907</td>
<td>3.225 MW</td>
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Kalamazoo River

<table>
<thead>
<tr>
<th>Dam</th>
<th>In-service</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Celina Bridge Dam</td>
<td>1926</td>
<td>2.55 MW</td>
</tr>
</tbody>
</table>

Note: MW = megawatts, 1 MW = 1,000 kilowatts (kW)
One megawatt (MW) is enough to power 1,000 homes.
Foote & Tippy Dams: 100 Years & Counting

LAST SUMMER, Consumers Energy unlocked the doors at Foote and Tippy dams and invited up to 240 visitors for the rare opportunity to step inside each site. The open houses were part of the company’s 100-year celebration for the two hydros.

In addition, federal and state legislators honored the company with proclamations. Accepting tributes for Foote Dam signed by U.S. Rep. Dan Kildee (D-M) 5th District and Michigan Sen. Jim Stamas (R-36th District), who represent Iosco County, were representatives of Consumers Energy, John Broschak, Vice President of Generation and Compression Operations; William Schoenlein, Director of Renewable Generation; Kevin McGray, Utility Workers Union of America (IUWUA) Local 114 President; Dan Baker, Hydro Generation and Maintenance Superintendent; and Bill Glaab, East Side Production Lead.

Broschak, Schoenlein, Baker and Bob Banwell, IUWUA Local 114 President, accepted proclamations for Tippy Dam signed by U.S. Rep. Jack Bergman (R-M 7th District) and state Sen. Curt VanderWall, (R-10th District), who represent Manistee County.

“In the 1900s, building Foote and Tippy dams were huge accomplishments,” Broschak said. “The sweat and dedication it must have taken to build the dams is almost unfathomable. To maintain them over the last century—and to keep them looking and operating as good as they do today—was an even bigger feat. We applaud the men and women who helped make Foote and Tippy dams invaluable resources for Iosco and Manistee counties and the entire state of Michigan.”

The dams still use many original parts, but the way they’re run has changed. They were once operated manually, so operators were onsite daily. Operators lived nearby so they could reach the dam quickly when signaled by a light in their homes that the dam needed attention. Today, the dams are operated with limited automation. In 1994, Foote and Tippy were converted to run-of-river operations, meaning the same flow that enters the dams exits the dams.

“When they were built, the design life of the dams was probably 50 years,” Schoenlein said. “Foote and Tippy dams have continued to operate safely and efficiently for over 100 years while being maintained by generations of talented, dedicated employees.”

On Aug. 11, 2018, visitors, accompanied by several Consumers Energy employees, boarded a bus at Oscoda High School, which took them to Foote Dam. Participants stopped near the entrance for an essential safety presentation and donned safety glasses.

Named after William A. Foote, the founding father of Consumers Energy, the 9-megawatt dam is the fifth dam built by Consumers Energy on the Au Sable River between 1911 and 1924. Foote, which is the most downstream dam, is surrounded by the Huron-Manistee National Forests. It was the first Consumers Energy dam to have three vertical direct connected turbine-generators installed after two vertical units were installed in the existing powerhouse at Crotam in 1915 and constructed with Mio in 1916. The design, which proved to be more efficient, also was used at Tippy Dam.

The area around Foote Dam offers a boat launch, canoeing, kayaking, wildlife viewing, sightseeing and camping. The last portion for paddlers participating in the annual 120-mile-long AuSable River Canoe Marathon is at Foote Dam.

The River Road National Scenic Byway follows the Foote Dam Pond shore and parallels the Au Sable River. The reservoir is well known for its fishery and boating opportunities. Downstream are four fishing decks and an American Disabilities Act (ADA) accessible walkway. Besides trout, anglers can land salmon, steelhead, walleye and various pan fish. The access site is operated by the Michigan Department of Natural Resources under a lease agreement with Consumers Energy.
Foote & Tippy Dams (cont.)

• **Powerhouse** — discussion about dam operations and how electricity is produced.

Tippy Dam was originally named Junction Dam for its location where the Manistee and Pine rivers meet. It was renamed Tippy Dam in 1934 in honor of Charles W. Tippy, a Consumers Energy director who died from injuries sustained in a car accident. At 21 megawatts, Tippy Dam is the second highest hydro facility owned and operated by Consumers Energy.

When it was built, it was the second highest dam in the world constructed on sand and of sand with a spillway in it. The unusual design of the spillway features a hollow chamber that makes it ideal for hibernating bats. Each year from fall until spring, about 20,000 bats use the chamber as a hibernaculum, a place to hibernate. It’s the largest hibernaculum in the Lower Peninsula. Rare species such as Eastern pipistrelles, petite reddish-brown bats and Indiana bats hibernate there.

The water below Tippy Dam has a reputation as one of the finest trout, steelhead and salmon fishing areas in the state. The Pine River, a Blue-Ribbon Trout Stream, flows into Tippy Dam Pond, which also holds bass, pike, walleye and panfish.

From Tippy Dam to the M55 Bridge, the Manistee River is a designated National Recreation River. The area north of the dam features the Manistee River Trail and the North Country National Scenic Trail. Boat launches, portages, day-use areas and campgrounds operated by the Michigan Department of Natural Resources, U.S. Forest Service, Norman Township and private groups are open to the public.
Forests Live Forever on Hydro Lands

A S THE OWNER of thousands of acres of land acquired early in the 20th century to ensure ample water for its hydroelectric developments, Consumers Energy has been a friend to the forest.

Since 1924, the company has planted over 22 million trees on its hydro property along Michigan’s northern rivers. Managing those mature forests is the responsibility of Hilary Wells, the sixth forester with Hydro Generation since World War II.

Before joining Consumers Energy Hydro Generation in 2018, Wells worked for the Michigan Department of Natural Resources based in Caylrod. She graduated from Michigan State University with a bachelor’s degree in forest resource management and a minor in conservation and environmental studies.

“I’m responsible for tree inventory, marking trees, preparing timber for sale, thinning forests to stimulate growth and improve the quality of the remaining trees, and clear cutting stands when needed,” said Wells, who is based in Cadillac. “I also bid sales to local logging companies, administer and oversee those contracts, and help at recreation sites on leased lands owned by Consumers Energy.”

In addition, Wells manages the company property at the Ludington Pumped Storage Plant and J. H. Campbell Generating Complex in West Olive, Mich. She also represents Consumers Energy as a member of the Michigan Society of American Foresters.

Wells enjoys seeing some of the most picturesque woodlands that overlook Michigan’s northern rivers. “It’s hard to imagine that this same land was once barren and without trees.

Rebirth of the Forest

In the 1860s, lumberjacks cut their way through Michigan’s forests to keep ahead of the demand for wooden products for a growing America. By the early 1900s, the great forests were gone. The market withered and died. Northern Michigan became known as “stump country.” What the lumberjacks didn’t level, fires did.

Consumers Energy bought thousands of acres of land in the early 1900s for its hydroelectric sites along the rivers. Scrub oak, brush and other short-lived and relatively worthless plants covered the property.

In the spring of 1924, the company launched its reforestation program by planting some 5,000 white pine seedlings on a tract near Five Channels Dam on the Au Sable River. Forestry crews planted two- and three-year-old seedlings by hand in furrows made by horse-drawn plows. On steep inclines, crews used scalping hoes to dig furrows.

To ensure they would survive and thrive, seedlings were carefully matched with the soil conditions. Seedlings included Norway, Scotch, jack, red and white pine; white cedar; European larch; willow; black locust; and aspen. Each area (“plantation” or “reserve”) was assigned a number for identification, and records kept of the number of trees, species and dates planted.

By 1928, nearly half a million trees had been planted on Michigan’s stripped forest lands along the Grand, Kalamazoo, Au Sable, Manistee and Muskegon rivers, where Consumers Energy’s hydroelectric plants operated. The reforestation program was one of the largest private reforestation efforts in the country.

In 1936, just 12 years after the reforestation program began, more than 2.4 million trees had been planted on company property covering some 2,000 acres. To shield the growing forests, the company installed metal fire boxes, equipped with suitable tools, where fire hazard was greatest, and fire warning signs.

Consumers Energy’s Chief Forester George Blair reported in 1937 that the trees in the first planting near Five Channels Dam exceeded 15 feet in height. “Continuing each year with an enlarged program, the company has planted nearly 3,200,000 trees involving an area of more than 2,700 acres,” he wrote in The Au Sable News.

Agricultural inventions made reforestation less labor intensive and more efficient. In 1938, tractors were used for furrowing for the first time since the program began. In the 1940s, tree planting machines pulled by crawler type tractors did most of the planting. This enabled crews to plant more trees in less time. By 1971, Consumers Energy had planted more than 22 million trees.

With the exception of five years (most likely during World War II when there was a shortage of workers), Consumers Energy planted seedlings twice a year, in the spring and fall, for at least 40 years.

Along with reforestation came such benefits as watershed protection, timber production on a selective basis, erosion control, homes for wildlife, increased underground water supply and ecotourism. Northern Michigan became a top destination for vacationers drawn to the quiet beauty of its woodlands and clear, cool waters.

“Careful and deliberate conservation efforts restored the forests to what they were before the lumber boom began,” said Wells, an outdoor enthusiast who enjoys trekking through the forest at work and off work with her husband, Ben, and their two dogs, a retriever mix and a bluetick coonhound.

“Our forestry management plan ensures that our forest lands will continue to thrive and be there for future generations,” she said. “I’m happy to help make that happen.”
New Looks for Historic Places

TWO OF CONSUMERS ENERGY’S century-old hydroelectric dams have new structures that enrich the view and enhance safety while preserving their historic character. Croton Dam in Newaygo County and the workers camp built during construction of Five Channels Dam in Oscoda County are listed on the National Register of Historic Places. Recently completed construction adds to their original charm and offers new sightseeing and recreational opportunities.

Five Channels Nets a Fishing Platform

THE AREA DOWNSTREAM of Five Channels Dam has been a popular fishing site for decades. To make it safer for anglers to cast a line into the Au Sable River, Consumers Energy erected an ADA accessible wooden fishing platform that’s open to the public year-round. Hydro Generation placed one-foot-size rip rap (loose limestone rock that stabilizes shorelines) along the river to provide erosion protection that occurs during operation of the spillway and high flows that occur throughout the year.

“However, the rip rap would have made the fishing site unsafe to the public,” said Rich Castle, Natural Resources Administrator of Renewable Generation. “Construction of a new fishing platform was needed to encourage safe shore fishing at the site.”

The platform was constructed by driving steel pilings into the river bottom and adding steel framework. A wood platform was installed on top of the frame and wooden railing is affixed for safety. Work was completed in the fall of 2018.

“The platform will be open year-round and provide fishing enthusiasts and the public an ideal opportunity to enjoy Five Channels Dam and the Au Sable River,” Castle said.

Croton Oil House Gets Rebuilt

AT THE SAME TIME Croton Dam was completed (1907), a frame structure referred to as the Oil House was built to serve as a storage facility for all drums, hand tools and small hardware. While Croton Dam was designated as a historic place, the Oil House was not included.

Over the years the use of the building changed. In past 1920, an expansion added more space to the first floor and a partial second floor for offices. In recent years, the Oil House was used for storage.

“The structure never had running water or heat and didn’t have electricity for many years,” said Dave McIntosh, Senior Licensing Engineer. “The basement walls were bowing in and held up by vertical support rods that made the cellar useless. The original windows were broken and paint was peeling. The wood siding contacted the asphalt from surrounding parking lots. We considered restoring the building, as it sits on the fringe of the Croton Powerhouse, which has been listed on the National Register of Historic Places for 40 years. But we knew it would be expensive and unsafe for workers.”

To demolish or modify the building, Consumers Energy Hydro Generation sought approval from the State Historic Preservation Office (SHPO) due to the potential for its effect on the historic nature of the Croton Powerhouse. SHPO agreed that removal would not have a negative effect on Croton and plans were made to demolish the building. However, Hydro Generation had an idea for the site that would improve aesthetics and benefit workers, visitors and neighbors.

McIntosh, who worked on Consumers Energy reports for the Federal Energy Regulatory Commission, which regulates and licenses Consumers Energy’s dams, participated in an environmental study of the water quality downstream of Croton Dam. The study revealed that temperature-sensitive fish would benefit from cooler water in July and August when the water temperature is typically at its highest level.

“We wanted to get cooler water into the withdrawal zone at the bottom of Croton Pond and move it downstream for fish that are sensitive to higher temperatures,” McIntosh said.

Starting in 2009, we installed an air compressor to operate water diffusers in the pond to lift the cooler bottom water so it could be drawn into the turbines and moved downstream.”

The air compressor, which operates 24/7 in July and August, was on a trailer outdoor, and was noisy. Hydro Generation surrounded it with plywood and added sound-deadening material. “Our original plan was to remove the air compressor in September,” McIntosh said. “When we added the sound-deadening structure, we needed to leave the compressor in place year-round but it didn’t fit the historic character of Croton.”

With SHPO providing approval that removal of the Oil House would not negatively affect the historic nature of the Croton Powerhouse, Consumers Energy designed a replacement building to resemble the old structure and received FERC approval for construction of a new building. The new building was designed to house the air compressor and reduce the noise levels in the surrounding area when in operation.

“We expect to complete the building and install the air compressor permanently inside by July 2019,” said McIntosh, who has worked on the Oil House and water quality projects for about 10 years.
Improving Fish Habitat: The HIA Program

SINCE THE AU SABLE
Manistee and Muskegon River hydro project licenses were issued by the Federal Energy Regulatory Commission in 1994, Consumers Energy has provided more than $9 million to the Michigan Department of Natural Resources (MDNR) - Fish Habitat Improvement Account (HIA) program.

These HIA funds, which were agreed upon to mitigate any fish damage caused by the hydro plant turbines, have been invested in a combination of fisheries research and on-the-ground projects that include habitat improvement, fishing access and erosion control. The company’s HIA contribution is increased annually at the rate of inflation.

Projects eligible for HIA funding can be located anywhere in the watersheds of the Au Sable, Manistee and Muskegon rivers. Priority for project selection is based on addressing management needs identified in the river assessments that the MDNR has completed for each of the three rivers.

The assessments can be found online at the MDNR website: www.michigan.gov. Once there, select “Fishing,” then “Managing Michigan’s Fisheries,” then “Library and Reports.” The river assessments are in the “Special Management Reports” section of the library. Fisheries Special Report No. 19 is the Muskegon River assessment, No. 21 is the Manistee River assessment and No. 26 is the Au Sable River assessment.

HIA-Funded Projects for 2019 and 2020

ON THE AU SABLE RIVER, the HIA has been a major contributor to small dam removal projects for the past four years. These projects have allowed tributaries of the river to become barrier free for fish and other species to travel upstream to native or more ideal habitat and spawning areas. For 2019 and 2020, the MDNR has provided funding for the removal of undersized culverts in Oscoda County. The undersized culverts block fish movement by restricting the fish’s ability to reach important habitats for spawning and winter cover.

The HIA also provided funds for improvements to the MDNR Muskegon River walleye pond. The project is expected to finish with the installation of electric pumps, which ensure water levels in the pond are maintained more efficiently and better managed by staff. The pond provides a significant number of walleye fingerlings and is one of the primary locations the MDNR Fish Division uses to collect walleye eggs for rearing and stocking into the many lakes and streams throughout Michigan.

On the Manistee River, the HIA is funding two significant projects in 2019 and 2020. The first project is an erosion control project located downstream of Consumers Energy’s Tippy Dam. The project is a joint venture of the MDNR, U.S. Forest Service, and Trout Unlimited and will address bank erosion and provide more defined river access points that allow anglers to access the river while minimizing negative effects to the river bank.

The second project on the Manistee River is a survey project being completed by the Upper Manistee River Restoration Committee. The survey will be conducted on the Manistee River between M-72 and the Yellow Trees Landing and is needed for prioritizing future erosion control projects.

More information about the HIA project proposal and selection process is available from MDNR Agency Representative Patrick Estel, whose contact information appears in the Manistee-Muskegon Au Sable Coordination Team listing on page 2.
Hydropower Major Player in Protecting our Planet

CONSUMERS ENERGY’s more than 150-year history is rooted in 13 hydroelectric plants along five of Michigan’s most scenic waterways: the Au Sable, Grand, Kalamazoo, Manistee and Muskegon rivers. Built between 1906 and 1936, the powerhouses are hailed as the state’s oldest, cleanest and most reliable sources of renewable energy.

In 2018, we set a breakthrough goal of eliminating the use of coal to generate electricity. Later that year, we filed an Integrated Resource Plan (IRP) with the Michigan Public Service Commission to demonstrate the proposed way in which we would meet that goal – including a plan to increase our renewable energy supply to more than 40 percent and cut emissions by 90 percent by the year 2040. This continued transformation to cleaner fuel sources is part of our long-term commitment to protect the planet.

“ar vision considers people, the planet and the prosperity of our state and the communities we serve. This IRP will guide key decisions in the coming years to make us a cleaner, leaner company for the Great Lakes State,” Poppa said. “This is a pivotal moment in our company’s long, proud history — and this plan charts a course for us all to embrace the opportunities and meet the challenges of a new era.”

In the IRP, we forecast renewable energy levels of:
- 25% by 2025
- 37% by 2030
- 45% by 2040

Future Generation Supply

Environmental Goals

In the past five years, we’ve created a cleaner, more sustainable energy future for Michigan by taking a leadership position in reducing air emissions, reducing water use, saving landfill space and increasing the amount of renewable energy supplied to customers.

“Our actions to date have reduced our carbon intensity by 38 percent, reduced our water usage by 35 percent and avoided over one million cubic yards of landfill disposal,” Poppa said. “We are still not satisfied. Our goals represent our further commitment to leave Michigan far better than we found it, because we live here, too.”

In 2018, Consumers Energy announced these five-year environmental goals for Michigan:
- Saving 1 billion gallons of water;
- Reducing waste to landfills by 35 percent; and
- Enhancing, restoring or protecting 3,000 acres of land in Michigan.

“We have a track record of doing more,” said Poppa, a Michigan native who is passionate about making life better for the state’s nearly 10 million residents and for future generations to enjoy.

With every decision it makes, Consumers Energy considers its impact on people, planet and prosperity. In 2017, the company:
- Ranked as one of the Top 10 Greenest Companies in the nation and the #1 company in Michigan according to Newsweek magazine.
- Scored highest for sustainability performance among U.S. utility companies and ranked 16th among 195 global utilities, as assessed by Sustainalytics.
- Began moving away from coal by closing seven of its 12 coal-fired generating units in 2016 - more than any investor-owned utility that year, resulting in a 38 percent carbon intensity reduction from 2008 levels.
Trail Work on the Move

As the owner of over 12,000 acres of land associated with its 13 hydroelectric sites, Consumers Energy provides abundant recreational opportunities for public use. The company is currently collaborating with government agencies, environmental groups, nonprofits and outdoor enthusiasts to finalize two sustainable non-motorized trail projects on its hydroelectric lands.

Michigan’s Dragon Trail at Hardy Dam

Michigan’s Dragon Trail at Hardy Dam is the longest outdoor recreational trail proposed on Consumers Energy’s hydro property. The single-track dirt trail will loop 42 miles around Hardy Pond and feature 20 footbridges and 13 scenic overlooks.

The trail committee includes representatives from over 30 public, private, educational, nonprofit groups and government entities. Newaygo County, with assistance from Mecosta County, will be responsible for the construction and maintenance of the trail under a license agreement from Consumers Energy.

Consumers Energy’s management team has approved detailed plans submitted by the trail committee, including:

- An Incident Action Plan developed by Newaygo County Emergency Services with input from other police, fire and rescue departments in Newaygo and Mecosta counties.
- The Manistee-Muskegon-Au Sable Coordination Team (listed on page 2) approved the proposal in late fall 2018. Consumers Energy then sent the trail proposal to the Federal Energy Regulatory Commission (FERC) requesting Newaygo County be granted permission to construct and maintain the trail.

"This was a necessary step as FERC, which issues operating licenses to Consumers Energy for operating its hydroelectric facilities, also must approve the company’s Land Management Plan," said Brooke McTaggart, Real Estate Asset Analyst for Consumers Energy’s Hydro Generation – Land Management. "The plan includes all proposed or established recreational facilities, including trails, on the company’s hydro property."

Pending FERC approval and contractor availability, construction could start this spring. The trail would be built in 11 segments, with multiple segments being built at the same time. The trail is expected to be completed in 2022.

Iosco Exploration Trail Along the Au Sable

The 34-mile Iosco Exploration Trail (IEC) will connect Oscoda to Hale along the River Road National Scenic Byway. The mixed-use, multi-use trail will be part of the 77-mile Michigan Iron Belle Trail, which runs from Detroit to Ironwood by connecting smaller community trails.

Construction of the trail is underway in Hale and expected to begin in Oscoda in July. The trail utilizes mostly road right of way; however, a portion is designed to pass through Old Orchard Park. Campground located on Consumers Energy hydro property near Foote Dam on the Au Sable River. Consumers Energy leases the property to Oscoda Township.

Committed community leaders created the nonprofit IEC to oversee planning, construction and future maintenance. The trail will be paid for with grants, donations and funds from townships and Iosco County. When completed, the townships along with Iosco County Parks and Recreation and the IEC will maintain the trail.

Before construction can begin on hydro property, Consumers Energy must review and approve the final engineering plans for the trail and then submit them to the MMAC Team for their approval. Once those steps are completed, Consumers Energy will send the detailed plans to FERC.

"When completed, these new trails will add almost 90 miles to Michigan’s trail system and be an all-season destination for users who want to hike, bike, cross-country ski or snowshoe," McTaggart said.
Dams Are High-Tech Learning Centers

LAST YEAR, Consumers Energy’s hydroelectric sites became one-of-a-kind classrooms for college students. The unique partnership between Consumers Energy and Northwestern Michigan College in Traverse City, Mich., helps students earn a Bachelor of Science degree in marine technology and succeed in today’s high-tech world.

“There’s no other program in the United States that offers the type of hands-on training that our students get at Consumers Energy’s dams,” said Hans Van Sumeren, Director of the Great Lakes Water Studies Institute at NMC and program developer.

“And there’s no better way to find a job in the industry than to have the experiences that our students receive through this public-private partnership. All our graduates are 100 percent employed around the world,” he said.

“There are more jobs available in the field than there are graduates. We need more people in the program.”

The concept for the program started in 2017 when Consumers Energy was considering ways to be supportive of the college. At the same time, NMC was looking for ways to give students relative industry experience. Representatives of Hydro Generation and NMC met and solidified the course components last year.

Students enrolled in the marine technology program performed survey work last summer using an unmanned aerial vehicle (UAV or drone) along the shoreline of Creton Pond on the Muskegon River in Newaygo County.

Consumers Energy also provided NMC students an opportunity to work at Mio Dam on the Au Sable River. “Our Hydro Generation staff gave students an overview of the dam, project scope, due date and safety briefings to increase awareness and ensure compliance with safety procedures,” said Adam Monroe, Consumers Energy Chief Dam Safety Engineer.

Under the supervision of Hydro Generation staff and NMC instructors, students performed an underwater inspection of the existing walls, spillway gates and intake at Mio Dam, checking for anything that might affect the integrity of the dam. They brought in their own equipment, which included a remotely operated vehicle (ROV) with integrated sonar as well as high-resolution scanning sonar for detailed observations.

“We reviewed the data from the inspection and were pleased with the information the students gathered,” Monroe said. “We’re looking at target areas that will give students more experience and challenging work in 2019.”

Consumers Energy also has made its dams available to the NMC Aviation Department. Using drones (ROVs), students performed inspections of the dams.

Rich Castle, Natural Resources Administrator of Renewable Generation, said the programs benefit Hydro Generation as well as NMC. “This partnership allows NMC students to get real-life experience using their equipment and working for Consumers Energy as if they were our contractor,” he said.

“We work through the contractor process with them and, in return, we receive a finished product from the inspection. It’s proven to be a great relationship.”