

# Sierra Club – Shawnee Group

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# Shawnee Trails

http://www.sierraclub.org/illinois/shawnee

June – August 2022 QUARTERLY

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#### **Green Hydrogen? Green Steel?** by Sabrina Hardenbergh

"Instead of setting the stage for the narrowly targeted, rigorously defined role that hydrogen requires, the (IIJA/BIL Act) does the exact opposite, with repeated calls for prioritizing hydrogen production from fossil fuels instead of renewables; wastefully pushing a widespread uptake and use of hydrogen instead of its strategic deployment; and setting timelines that unquestionably bias the program in favor of industry over communities." —<u>Julie</u> <u>McNamara, senior energy analyst, Union of Concerned Scientists</u>

"Hydrogen fuel cells and combustion engines may be an important part of that clean energy future. But to make the hydrogen economy truly green, we will need a clean source of concentrated baseload energy. Hydrogen fusion has all the characteristics to fill that requirement, as a safe, environmentally friendly, and virtually unlimited source of energy for future generations." —<u>Bernard Bigot, Director-General, ITER Organization</u>

This April 2022, SB3613, the Hydrogen Economy Act, establishing a Hydrogen Economy Task Force, recently passed both houses of the Illinois state legislature. The task force will 1) plan partnerships with a hydrogen hub and maximize federal incentives for hydrogen fuel development using renewable energy, 2) identify opportunities to integrate hydrogen into transportation, energy, industrial, agricultural and other sectors, 3) identify barriers to hydrogen development, including within environmental justice communities, 4) recommend policies to deploy hydrogen in the Illinois economy. The bill supports a network already initiated by the University of Illinois, Argonne National Laboratory, and others in the Midwestern Hydrogen Partnership to compete for the U.S. Department of Energy grant application, to possibly be one of four regional clean hydrogen hub demonstration projects, part of the recent federal Infrastructure Investment and Jobs Act. This follows earlier federal energy plans for hydrogen in the 2000's. Oklahoma is also organizing with their predominantly "blue" hydrogen infrastructure in their natural gas fields, as is the Bakken in North Dakota, while other regions will promote their energy, transportation, manufacturing and R&D infrastructure. Three of four hubs are mandated to focus on developing hydrogen from fossil fuel, or nuclear, or renewable energy, and hubs will each focus on separate end uses like electric power generation, transportation, industry, and residential and commercial heating. The Midwestern hydrogen partnership appears to focus on renewables and nuclear (with gas) for transportation fleets and the electric power grid, with longer range (*Continued on Page 2*)

#### (Green Hydrogen? Green Steel? Continued from Page 1)

goals of benefitting other industry and manufacturing. Thus, it's time to gear up about green hydrogen, and green steel, that have been suggested to reduce fossil fuel dependence, decarbonize greenhouse gas emissions, and mitigate climate change. Yet, as with <u>lithium batteries in new electric vehicles</u>, there are political economic and ecological caveats in what still is an "all of the above" and fossil fuel heavy energy spectrum in this "clean hydrogen" moniker.

Presently, hydrogen (H2) is primarily chemical "feedstock" in oil refining (to lower sulfur content) and fertilizer production. However, the first <u>hydrogen (and oxygen) internal combustion engine</u> was invented over two centuries ago, in 1806, by Swiss engineer François Isaac de Rivas, with electric vehicles (EV's) appearing 25 years later, then Daimler's gas car in 1885, after which Ford's cheap Model T, new roads and an oil boom grabbed the market. The <u>hydrogen fuel</u> cell concept has existed since 1842 (reverse of <u>electrolysis</u>, known for several centuries), while a century later aerospace engineers further developed the fuel cell for NASA missions. Current analysts believe climate and emissions friendly energy efficiencies are to be found by electrifying everything that can be, using renewables, including cars. While fast fueling hydrogen cars (with longer range between refueling) exist in <u>California</u>, current thought is to opt for the EV. Hydrogen or hydrogen fuel cells could be useful where clean-energy electrification does not easily reach in <u>heavy</u> industry, long-haul aviation, maritime shipping, and <u>heavy freight</u>. Hydrogen could fill intermittent production balancing gaps in a high-renewables electric grid, displacing the role of natural gas. Using hydrogen where electrification can occur is <u>not cost effective</u>.

While the water electrolysis equation we learn in high school chemistry class seems simple,  $2 \text{ H2} \rightarrow 2 \text{ H2} + O2$ , the scaled up industry-level operations, for what electric current or energy drives the transformation of water into hydrogen and oxygen, is more <u>complex</u>. A <u>hydrogen color code</u> indicates the process by which hydrogen is generated, using renewable energy (green; a "cleaner" electrolysis method), fossil fuel (grey, black, brown), <u>biomass</u> (blue, grey, turquoise or orange, depending on the method), <u>mixed hydrocarbon waste</u> (orange), <u>solar</u> (yellow) and <u>nuclear</u> (purple, pink, red) energy. <u>China</u> is the world's largest producer of hydrogen, of primarily the grey, black, or brown processes, respectively using natural gas or bituminous and lignite coal, to derive hydrogen. In the US, 95% of hydrogen production is <u>fossil fuel-based</u>, <u>emissions-intensive</u>, <u>steam methane reforming "grey"</u> hydrogen, <u>from natural gas plants</u>, wherein, our present production of hydrogen emits nearly as much climate pollution as all of Illinois' power plants. "Blue" hydrogen production of other chemicals, such as chlorine and lye, whereby the onsite use of <u>recovered hydrogen</u> as fuel to drive other processes in the plant in a more closed system of operations could lower use of fossil fuel. Hydrogen can be produced from <u>biogas</u> (methane, from waste water treatment plants, food industry waste, crop waste, animal feed facilities, landfills) and used onsite in fuel cells for energy needs. <u>Dow Chemical</u> to <u>Gill's Onions</u> employ such efficiencies, as do the <u>oil and gas and</u>

fertilizer industries (as with biomass onions, think steam methane reformation with natural gas: CH4 + H2O  $\rightarrow$  CO + 3H2, where the carbon monoxide is combusted to CO2, for grey hydrogen, or blue hydrogen if the CO2 is sequestered). Hence, further renewable energy could still be incorporated into or displace these systems, as well as employ means to decarbonize the operations beyond CO2 sequestration underground.

Thus, much hydrogen is not clean, but rather, only that <u>produced with renewable energy is cleaner</u>. <u>Solar</u> panels are often manufactured using coal-fired energy, with carbon emissions. Other factors include

the type of energy consumed in electrolysis, or used to transport hydrogen to it final destination, and the



Integration of a fuel cell system in a chlor-alkali plant for hydrogen recovery and cogeneration

impact of the eventual disposal or recycling of the parts and components used. Further caveats include: 1) H2 combustion creates air polluting nitrous oxide (NOx), leading to particulate matter, <u>ozone</u>, acid rain, and respiratory problems like asthma (thus, H2 is better when used in fuel cells vs. in a combustion engine), 2) H2 is inefficient as fuel (better to use renewable energy electricity), 3) explosive, and 4) in a "blue" hydrogen world H2 could be transported and stored via natural gas pipelines and tanks, but would need upgrade for higher percent hydrogen conveyance (*Continued on Page 3*)

#### (Green Hydrogen? Green Steel? Continued from Page 2)

and containment, as would natural gas appliances. For these reasons, hydrogen fusion has also been promoted as an eventual cleaner energy source, although such nuclear fusion is still in the research and development phase at various international partnerships like ITER, in France, and <u>universities</u>.

Hydrogen fuel cells are touted for highly efficient energy production, with only water emitted, and less hazardous materials when discarded, where the fuel cell components including expensive platinum can be refurbished or recycled at the end of their life. Yet, there are significant monetary, resource extraction, and energy costs of infrastructure and supplies for H2 production (many current methods not green), safe transport and storage (flammable in air, therefore must be kept very cold, liquified or in other stabilizing containment), and regulation. Proton Exchange Membrane (PEM) technology is used to produce electrolysers and fuel cells. Rare metals, platinum and iridium, are typical catalysts in fuel cells and some water electrolysers. Substitutes, like palladium alloys, cobalt-nitrogen-carbon, graphite, iron, and nitrogen doped carbon-coated nickel catalysts, are being researched; however, the mining and processing of each has environmental and socioeconomic costs. Platinum, also used in jewelry, catalytic converters, electrical contacts, turbine blades, is mined predominantly in South Africa, Russia, Zimbabwe, Canada, and the United States. Platinum and platinum group metals (PGM) mining's environmental impacts include high waste rock and tailings, high electricity consumption, CO2 emissions, soil contamination, huge water use, water pollution, and impact on moss, rats, macroinvertebrates, and other wildlife, such as fish, wherein human fish consumption creates cancer risk. The platinum mining industry employs social and economic practices of exploitation and dispossession, with village relocation, economic disparity and compensation issues,. Inhabitants are relocated at the last minute to barren sites with inferior housing, few communal water taps, no electricity, no refuse removal or adequate sewage systems, no electricity. Work clothes, heavy with chemicals, contaminate the household, and dust causes chest pain. Worker and neighboring inhabitants' mine-related health conditions include silicosis, silico-tuberculosis, asthma, sinusitis, many dust-related eye problems, HIV and AIDS, water-borne diseases, numerous cancers from radiation and chemicals, noise induced hearing loss and accidents, dermatitis, heat stress, asbestosis and asbestos related cancers, reproductive health problems, occupational asthma, bronchitis, neurological problems, repetitive strain and ergonomic injuries, work related stress, hypertension and strokes. Sex work and suicide are common. Mining for cobalt catalysts is a similar environmental pollution and human rights story, such as in the DR Congo, whether the cobalt ends up in hydrogen fuel cells or lithium batteries in EVs, cell phones and laptops. Fuel cell components may also include Teflon and Nafion (PFAS, "forever chemicals").

Japan has been the largest producer of hydrogen fuel cells, the largest fleet of hydrogen refueling stations, is developing various means to decarbonize industry, oil refining and shipping ports, and has demonstrated the international shipment of hydrogen where such supply chains could be further developed if not done onsite. Japanese <u>researchers</u> are among those <u>developing cheaper</u> alternatives to scale up fuel cell production, <u>safety and longevity</u>.

"I was traumatized myself. I have a younger brother who came to work here. After only one year of work, he found out he had TB and he died. We realized the place he was working in was dangerous for him. There was a lot of dust. He worked in a place where they load the platinum underground." —<u>Reverend Sakhumzi Collen</u> Qiqimana, resident pastor, Wonderkop, Marikana

#### Green Steel

With EV's and decarbonization of the electric grid, green steel produced by green hydrogen would make EV's "greener" and help decarbonize the steelmaking process—among the most carbon-intensive industrial processes. Using wind and solar generated electricity to electrolyze water, green hydrogen can be used in steelmaking to replace coal or natural gas without emitting carbon. With recent cost reductions of wind, solar, and electrolysers, green hydrogen cost is also declining. Lightweight vehicle materials such as aluminum and <u>carbon fiber reinforced polymer</u> have replaced steel to increase fuel efficiency and reduce the carbon emissions while driving vehicles. However, <u>such materials can increase carbon emissions during their material production</u>, and fill <u>landfills</u>, although manufacturers are <u>researching recycling and alternate fuel and feedstock sources</u>. Some steel companies, including <u>ArcelorMittal</u>, <u>Nippon Steel</u>, and <u>Baowu Steel</u>, have voluntary carbon neutral goals by 2050, even though green steel using hydrogen is about 50% more expensive than steel made by using natural gas, or \$360 per vehicle. Automotive corporations could invest in renewable energy production to energize their green steel supply chain and manufacturing, as did the IT sector. The steel industry could decarbonize via efficiencies, recycling, and carbon capture and storage wherein hydrogen (*Continued on Page 4*)

#### (Green Hydrogen? Green Steel? Continued from Page 3)

production may be a component, as an <u>auxiliary reducing component</u> (in BF-BOF, or H2-BF), or as a <u>sole reducing agent</u> in the direct reduction of iron (in DR-EAF, or H2-DRI).

The blast furnace-basic oxygen furnace (BF-BOF) method, accounts for <u>60%</u> of European steel production, wherein <u>most</u> <u>emissions</u> come from the blast furnace and the coke plant. The coke plant produces <u>coking coal</u>, which is used in the blast furnace both as a heat source and to reduce iron. H2-BF has the potential to reduce emissions both in the coke plant and

blast furnace because less coal is needed and only water forms after reacting with iron ore instead of carbon dioxide. <u>Common auxiliary reducing</u> <u>agents</u> are pulverized coal, oil, and natural gas, which produce CO2. For <u>technical reasons (temperature</u> <u>level, reducing rate, feedstock and precipitate levels)</u>, using only hydrogen in a blast furnace has not been possible, so H2-BF is seen as a transition to H2-DRI.

Steel made with <u>hydrogen in a direct reduction electric</u> arc furnace method (DR-EAF, H2-DRI) is increasing. Iron ore reduced from a solid state with hydrogen, is direct reduced iron (DRI), or sponge iron. In an EAF, <u>electrodes</u> create current to melt sponge iron, to which carbon is added (from pulverized coal, biomethane or other biogenic carbon sources), which produces steel. Added scrap can <u>reduce the need for</u> <u>iron ore</u>. DRI has been done since the <u>late 1960s</u>, but without <u>pure hydrogen</u>. <u>DRI can be combined with the</u>



DR-EAF method with green hydrogen, either using a shaft furnace or a fluidized bed reactor, where hydrogen is the sole reducing agent.

<u>BF-BOF</u> (blast furnace – basic oxygen furnace) method, to reduce coke use. Compared to coal steel making, DRI reduces emissions; however, the process so far mostly uses grey or blue hydrogen, or natural gas, wherein green hydrogen would further reduce emissions, for which several <u>Swedish</u> companies are better positioned. Yet to be seen is whether global companies like <u>ArcelorMittal</u>, collaborating with the <u>Midwestern Hydrogen Partnership</u>, will demonstrate green hydrogen and green steel in a local Hydrogen Hub, or influence companies like US Steel.

Clearly, the Hydrogen Task Force needs to incorporate renewables in the whole supply network to mitigate emissions and climate change, and legislators should support renewables in all sectors, with attention to environmental justice issues.

#### Volunteers Needed to Help Protect Shawnee National Forest

Protecting Shawnee National Forest involves frequent communication with the Forest Service, research on issues, and educating others about those issues. We especially need help in keeping oil and gas wells out of the forest - including fracking wells. Please contact Barb at <u>babitaji@aol.com</u> if you are interested in helping in any way.

Concerned about fracking?	FYI, to receive more timely alerts from the
Contact Barb McKasson at <u>babitaji@aol.com</u> if you are	Illinois Chapter of the Sierra Club, sign up
interested to help. Bills to support in Springfield, include HB282	online at their state website:
(fracking transparency bill) and HB1562 (People's Property	https://secure.sierraclub.org/site/SPageNaviga
Protection Act, concerning subsurface trespass), so do contact your	tor/Chapter/il_newsletter_signup.html:isessio
legislators. However, Barb can alert you of many action, outreach	nid=84420F4C49A5A8CD264E1E3C3E131E
and planning opportunities that come up.	25.app205a

**Call for articles and photographs for Shawnee Trails!** The next issue will be published in November. Please send your Word, PDF or JPG files to <u>sabrina@midwest.net</u> by **Monday, August 1st.** 

# SUMMER 2022: VIRTUAL SHAWNEE GROUP SIERRA CLUB MEMBER PROGRAMS

Information for joining these online Zoom webinar meetings will be shared later by Shawnee Group email, website and <u>Shawnee Group of the Sierra Club Facebook Page</u>. No in-person Shawnee Group member programs will occur this summer, per national Sierra Club directions, because of COVID precautions. Do also consider other Illinois Sierra groups' virtual presentations, as well as our own, listed on <u>www.sctrips.org</u>.

#### No Shawnee Group member programs will be held during June & July 2022.

### Thursday, August 11, 2022, 7 pm

Presentation: "Shawnee National Park?"

Presenter: Les Winkler, Outdoor Writer and Photographer for the Southern Illinoisan

**Location:** Via Zoom. (Registration information and access to the Zoom link for this program will be shared by email and on our website event page, <u>https://www.sierraclub.org/illinois/shawnee/events</u>; **scroll down** to the **spreadsheet** at the very bottom, click open this event's title and **fill out** your name, email and info. The spreadsheet is also at <u>www.sctrips.org</u>.) Should this event be shifted to in-person, notification will be shared via email, on our website, and the Shawnee Group of the Sierra Club Facebook page.

# <u>SUMMER 2022 – SHAWNEE GROUP SIERRA CLUB OUTINGS</u>

### Full Frog Moon Paddle, Sunday, June 12, 2022, 7:30 – 9:30 pm

We will participate in an evening canoe trip during the full moon with Cache Bayou Outfitters on June 12 from 7:30pm - 9:30pm. They were recently selected by Midwest Living magazine as the best place to paddle in the Midwest. On this canoe trip, we will learn about the life of nighttime creatures in the Cache River wetlands. Sign up at cacheriveroutfitters.com. The cost is \$37 for adults, \$21 for teens and \$18 for youth. Canoes and equipment are provided. If the trip is sold out, please call Steve Eberhart at 618-967-8690.

Visit our older Shawnee Group Sierra Club blog page, lower right side (Index), for a list of weblinks to local hiking trail descriptions, and directions about how to get there: <u>https://shawneegroup.blogspot.com/</u>

# Service Outings – Help Save High Quality Natural Areas

Shawnee Group is committed to helping rid high-quality natural areas of non-native invasive plants (NNIS) that are threatening to crowd out our native plant communities at La-Rue Pine Hills Research Natural Area (Snake Road) and at Fern Rocks Nature Preserve (Trillium Trail) in Giant City State Park.

COVID-19 pandemic guidelines restrict group activities, but service outings will eventually occur again.

Please consult our web page <u>sierraclub.org/illinois/shawnee</u> or our Facebook Page (<u>Sierra Club Shawnee</u> <u>Group</u>) for further developments in 2022 or contact Barb at 618-549-9684, <u>babitaji@aol.com</u> or text 618-534-7440.

**Piasa Palisades Group Outings Chair:** Carol Klinger, 618-288-5506, <u>ciklinger@yahoo.com</u> <u>http://www.sierraclub.org/illinois/piasa-palisades</u>

Eastern Missouri Group Outings Chair: Doug Melville, 636-288-1055 douglas.k.melville@gmail.com http://sierraclub.org/missouri/eastern-missouri

# **Future Outings TBA:**

Updates listed on our or Illinois Chapter websites: http://www.sierraclub.org/illinois/shawnee https://www.sierraclub.org/illinois/events-calendar Other short notice outings and events may be announced on our Facebook page: https://www.facebook.com/SierraClubShawnee

**Reduce COVID risk.** The <u>CDC</u> and <u>IDPH</u> still indicate that in many cases, if you can't socially distance, wear a <u>mass</u>, especially indoors.

# **Illinois Environmental Council Legislative Wrap-up, Spring 2022 Session of the Illinois Legislature** *(condensed, notated by Barbara McKasson)*

Illinois Chapter Sierra Club is a member of the Illinois Environmental Council (IEC) and has a seat on the board. The Chapter has input into the legislative priorities of IEC, but we must limit our priorities for our grassroots lobby corps to four or five bills. The IL Chapter priorities this session were the PFAS Incineration Ban, the Environmental Justice Permitting Bill, Coal Plant Demolition Bill, CEJA Fix and the Electric Vehicles Charging Act. Go to <sierraclub.org/Illinois/Shawnee> and click on "newsletters" to view the summary of these bills in the March – May 2022 Shawnee Trails newsletter.

Spring session ended April 9<sup>th</sup> so legislators could start campaigning for primary elections; in off years, the session usually goes until the end of May. Still, significant progress occurred on Sierra Club and IEC priorities for the year.

**Climate and Equitable Jobs Act (CEJA)Fix- SB3866 (Walsh/Hastings)** Unfortunately, we saw continued efforts to roll back CEJA. Despite unified environmental community support for a bill that would make a minor but critical technical update ensuring full funding for the workforce programs within CEJA, several hostile amendments to this bill were introduced by industry. Luckily, the CEJA fix passed without any amendments and is headed to the Governor, who was a strong supporter of the CEJA bill.

**Environmental Justice Permitting – HB 4093 (Harper/Villanueva) –** Passed House, held in Senate. A cornerstone of this year's political agenda, this bill would make it much harder for polluters to locate within environmental justice communities where pollution is already very high. While we successfully passed this bill out of the House (64-38), we hit a roadblock in the Senate and had to put the bill on hold. However, presently there are 21 co-sponsors and we fully intend to get this called for a vote during the veto session.

**PFAS Incineration Ban – HB4818 (Greenwood/Belt)** – Passed both houses. The incineration of "forever chemicals," aka PFAS, is another practice that has disproportionately impacted minority communities in Illinois through air pollution, namely in East St. Louis. It is now on its way to the Governor.

**Waukegan Coal Ash Clean-up** – **SB 3073** (Johnson/Mayfield) – Passed Senate, held in House. Toxic coal ash is currently leaching harmful substances into Lake Michigan drinking water and groundwater in the environmental justice community in Waukegan, IL. NRG, the company that owns the coal plant, has refused to clean up the mess and successfully stopped this bill from moving out of the House. We expect to continue to pursue this important legislation.

**Power Plant Demolition - HB 2767** (Mah) – Held in House. Introduced due to a smokestack demolition that covered an entire neighborhood in dust and ash, this bill would require much more stringent procedures and public engagement when a power plant is set to be demolished. We intend to work with sponsors to reintroduce this legislation next year.

**Expand Electric Vehicle Charging Infrastructure – HB 3125 (Gabel)** – Requires that the construction of new residential property be EV ready. This bill passed the House but will need more work in the Senate.

**CEJA Attack Bill – SB1104 (Harris) – We opposed this bill**, which creates a "reliability task force" stacked with fossil fuel interests and short on renewable industry representation. This task force perpetuates false notions that renewables are unreliable and also were counter to the reliability protocols and transparency already present in CEJA. Fortunately, this bill did not move forward in the House.

**Illinois Drug Take-Back Act – HB1780 (Gong-Gershowitz/Fine)**- protects Illinois wildlife, waterways and drinking water by establishing the Illinois Drug Take-Back Program with funding from pharmaceutical companies. Passed both chambers and headed to Governor.

**Plastic Procurement – SB1915 (Morrison/Carroll)-** Creates a state procurement preference for compostable or recyclable foodware and bans single-use plasticware at IDNR state parks and natural areas. Passed both chambers and headed to Governor. (*Continued on Page 7*)

(Legislation, Continued from Page 6)	Shawnee Group Native Plant Sale "A Success"
Low-Bid Requirement; ISBE Food Procurement – HB 4813 (Gordon-Booth) – Eliminates the current low-bid requirement for procurement of food and food services within ISBE to give schools more flexibility in accessing locally sourced, healthy food options. Passed both chambers and headed to Governor. Agriculture Equity Commission – HB 5201 (Harper/Simmons) – Creates an equity commission within the Department of Agriculture to review current programs and grants to identify inequities in outreach and distribution of funds to Black, Brown and low-income communities. Passed both chambers and is	Thanks to Eric and Ann Stahlhaber at Southernwood plus all our Shawnee Group members who helped make the sale a success. Of course, one of the main reasons we hold the sale is to promote the use of native plants in order to help our native wildlife, especially pollinators, insects and the birds that need the insects to feed their baby birds plus for carb loading for long migration flights. Our gross profit was \$2,113 from the sale of 302 plants. Southernwood earned \$1,661 and Shawnee Group earned \$452. Other benefits included educating people on the native plants, a service given by Jean Sellar and Eric Stahlhaber, and educating people on Sierra Club activities and mission.
headed to Governor.	If you missed the sale or want more native plants, see
<b>Pyrethroid Restrictions – HB 3118 (Gabel) –</b> Sets restrictions on when and how pesticides targeting mosquitoes can be used. Requires additional training for	<u>facebook.com/Southernwood-Gardens</u> , or visit their native plant nursery at 4650 Rhine Rd. in Alto Pass. Call for a reservation: 618-697-3798, 618-833-2769.

sprayers on the life cycles of mosquitoes to ensure proper use of pesticides. This bill passed both chambers and is headed to the Governor.

**Partners for Nutrient Loss Reduction Strategy Act – SB3471 (Villivilam)** – In order to address the state's difficulties with implementing the Nutrient Loss Reduction Strategy, this legislation would add the implementation of the strategy to the purposes of the Partners for Conservation Fund and provide additional fiscal resources to agencies implementing the strategy. This bill did not move forward, but received important agency support.

**Green Hydrogen Task Force** – <u>SB3613</u> (Ellman/Costa Howard) – Establishes a green hydrogen task force to create a plan for potential partnerships and to maximize federal incentives for hydrogen fuel development using renewable energy. This bill passed both chambers and is headed to the Governor's desk.

Illinois Legislative Contacts: CALL YOUR LEGISLATORS TODAY!

State Dist. 109 – Adam Niemerg: 618-813-6036; 217-782-2087; <u>niemerg@ilhousegop.org</u> State Dist. 115 – Paul Jacobs: 618-534-9880; 217-782-0387; <u>Jacobs@ilhousegop.org</u> State Dist. 116 – David Riess: 618-282-7284; 217-782-1018; <u>friess@housegop.org</u> State Dist. 117 – David Severin: 618-440-5090; 217-782-1051; <u>www.ilhousegop.org/contactseverin</u> State Dist. 118 – Patrick Windhorst: 618-294-8703; 217-782-5131; <u>www.ilhousegop.org/windhorst\_contact</u> Senate Dist. 55 – Senator Darren Bailey: 618-665-4109; 217-782-6674 Senate Dist. 58 – Senator Terri Bryant: 618-684-1100; 217-782-8137; Sec'y.: <u>cbrown@sgop.ilga.gov</u> Senate Dist. 59 – Senator Dale Fowler: 618-294-8951; 217-782-5509; <u>senatorfowler59@gmail.com</u> Governor J.B. Pritzker: 217-782-6830; <u>https://www2.illinois.gov/sites/gov/contactus/Pages/default/aspx</u> Speaker of the House Emanuel Chris Welch: 217-782-8120; 708-450-1000; <u>repwelch@emanuelchriswelch.com</u> Senate President Don Harmon: 217-782-8176; 708-848-2002; <u>http://www.donharmon.org/contact-senator-harmon</u>

Congressional Contacts: CALL YOUR CONGRESSMEN TODAY!

Senator Dick Durbin: 618-351-1122; 202-224-2152; <u>http://www.durbin.senate.gov</u> Senator L. Tammy Duckworth: 202-224-2854; <u>https://www.duckworth.senate.gov</u> Representative Mike Bost: 618-457-5787; 202-225-5661; <u>https://bost.house.gov</u> Representative Mary Miller: 618-240-3155; 202-225-5271; <u>https://marymiller.house.gov</u>

**President Joseph R. Biden**, The White House, 1600 Pennsylvania Ave., Washington, D.C. 202-456-1111; <u>https://www.whitehouse.gov/contact</u>

# Has Your Email Address Changed?

To receive notification when the latest Shawnee Group newsletter is posted online, be sure to inform the Group when you change your email address. Send email address updates to: <u>crusso1957@yahoo.com</u>.

Read current and past newsletters on our website: <u>http://www.sierraclub.org/illinois/shawnee</u>. The website also lists information on upcoming local programs and outings, plus state and national Sierra Club issues.

## **Leadership Opportunities**

**Run for the Board!** We need a few good women and men. Join the board of directors (the executive committee, also known as the ExCom) in overseeing the Shawnee Group's strategic direction and economic health. Board members meet monthly for about 2 hours. Board terms are for two years. We are always interested in potential candidates.

# We need Hospitality team members

Provide refreshments for one monthly meeting each year (2nd Thursday). Be the Hospitality Chair to organize refreshment providers and greeters OR Act as a greeter for a monthly meeting or welcome and assist our speaker OR Select and make reservations at a local restaurant for our monthly "Dinner Before the Meeting." Contact Jane Cogie, 618-549-4673, jane.cogie@gmail.com.



# Shawnee Group Sierra Club T-Shirts for Sale!

Show your support for our local group's activities. Contact Mike Covell at 618-201-4928 or <u>emike@siu.edu</u>.

White logo on blue T-Shirt **\$15** Medium Large or X-Large

# Household Chemical Collection Event – Open to ALL Illinois Residents

Saturday, June 4, 2022, 8:00 am – 3:00 pm SIU Arena South Parking Lot (Banterra Center), Carbondale (from US Hwy 51, turn west on Pleasant Hill Road, then North on Arena Drive)

Bring in your old oil paints, paint thinner, herbicides, poisons, pool chemicals, motor oil, rechargeable batteries, antifreeze, solvents, etc. Also accepting old medications in original bottles – prescription and over-the-counter.

You **MUST REGISTER** to

schedule drop-off time. You can call 618-684-3143, ext. 128 OR online at: <<u>jchdonline.as.me/HHW2022</u>> to register – click on June 4 on the calendar and choose a time and fill out the form.



Also make a note of the list of items that will not be accepted, such as explosives, ammunition, fire extinguishers, smoke detectors, medical waste, etc. (see complete list on the website) Latex paint and alkaline batteries are not recycled. They can be safely thrown in with your regular household trash.

You must show Illinois state ID or a recent utility bill with your Illinois address to show you are a resident of the state.

Bringing items from friends and neighbors is encouraged. And spread the word!