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CLUB**  
FOUNDED 1892

# TERRA FIRMA

SEPTEMBER - DECEMBER 2021

PUBLISHED BY VOLUNTEERS FROM THE LOWER HUDSON GROUP SIERRA CLUB

## TAKE ACTION! TELL THE NRC THAT HOLTEC NEEDS ROBUST OVERSIGHT FOR INDIAN POINT DECOMMISSIONING

*Compiled by Gale Pisha & Marilyn Elie*

*We gratefully acknowledge the historic and current energy, contributions and activism of Manna Jo Greene, Environmental Director, Hudson River Sloop Clearwater, Inc.*

On July 29, 2021, the U.S Nuclear Regulatory Commission (NRC) held an in-person and teleconference hearing in Tarrytown to gather comments on Holtec's decommissioning plan for Indian Point (IP). At the hearing, excellent comments were delivered by about 50 participants.

**Written comments from the public are due by October 22.** Please let the NRC know your concerns so that the decommissioning process will be safer for residents of the Hudson Valley and for residents living near other aging nuclear plants which will be closed and decommissioned in the future. Instructions on how to comment are at the end of this article and on our website at [SierraLowerHudson.org](http://SierraLowerHudson.org).

### Background

Indian Point's owner, Entergy, sold the reactors to Holtec International in 2019. Holtec is a multibillion dollar international corporation that has recently entered into the decommissioning business. They are promising a rapid decommissioning which includes sending high level radioactive waste to interim storage in New Mexico. Holtec has experience with spent fuel but has never completed decommissioning a nuclear plant before. They have an unsavory business reputation. The fear is that the company will attempt to do the job quickly and cheaply, and leave more money in the taxpayer-funded decommissioning trust fund that

it can claim as profit. A quick and dirty decommissioning could endanger communities around the plant and along the shipping route for the spent fuel.

The Indian Point Safe Energy Coalition (IPSEC), including Sierra Club, have been asking for the cleanest, safest decommissioning of IP with particular attention to safe, just, responsible management of the radioactive nuclear waste, now and for generations to come. In addition, the location of the AIM fracked gas pipeline so close to IP poses a grave community danger during this massive deconstruction process.

[Concerns to address in comments on Holtec's Post Shutdown Decommissioning Activities Report \(PSDAR\)](#)

**OUR CONCERNS IN A NUTSHELL: Holtec's Plan (PSDAR) gives woefully inadequate or non-existent treatment to key safety and financial issues affecting the New York Metropolitan Area.**

### **Cask and Canister Issues**

- 20-25 year warranty on canisters & cask system is inadequate.
- Visual inspection of canisters is not adequate, Pressure monitors or relief valves are needed to prevent radioactive leaks and hydrogen gas explosion.
- Thin-walled steel canisters containing fuel rods are inside thicker concrete casks. The casks are lined up like bowling pins making them vulnerable to terrorism. Hardened Onsite Storage should be considered.

*continued on next page*



## Membership Meeting Schedule

**Visit [SierraLowerHudson.org](http://SierraLowerHudson.org) and select Events**

**Visit [RocklandSierraClub.org](http://RocklandSierraClub.org)**

**All meetings via Zoom, link on websites**

## TAKE ACTION: INDIAN POINT COMMISSIONING...continued from front page

**High-Burnup Fuel** is much hotter and more radioactive than ordinary spent fuel and should be allowed to stay in the fuel pool at least seven years or more before moving to dry cask storage, not three years or less that is currently being proposed.

### Radiation Monitoring

- There is no plan for accurate off-site radiation monitoring, nor is there any way to detect increasing pressure, temperature or crack formation in the canisters. There is no way to remediate a leak on site or repair a damaged cask.
- Perimeter monitoring of the site will not capture problems onsite that can impact workers
- Offsite monitoring is needed, especially at the nearby elementary school.

### Pipeline Risks

- Holtec's plan does not even mention Algonquin's 42" high-pressure and other AIM gas pipelines adjacent to IP. Demolition work will increase the hazard of explosion risk with the spent fuel being in the blast radius under some scenarios.
- These gas pipelines should be shut down during decommissioning.

**Earthquake Zones** in the area should be studied further, given the advances in this field since the plant was constructed.

**Emergency Planning and Response** needs to be continued as long as spent fuel is stored onsite.

### Transportation of highly radioactive fuel rods

- The plan currently calls for barge transportation down the Hudson River. This poses risk to river towns and the New York City metropolitan area.
- Transportation across the country by road and rail will threaten safety of neighborhoods along route.
- Aging infrastructure along the proposed roads have not been assessed for capability to handle 120,000 metric tons of nuclear waste and emergency responses have not been planned.

**Environmental Justice Concerns** about the disproportionate impact of decommissioning, transportation and storage of spent nuclear fuel on communities of color and low income, especially indigenous and Latinx communities, have not been considered. Many of these same communities have already suffered from uranium mining and processing, and could now be forced to host storage facilities against their will. The Governor of New Mexico along with other elected officials has notified the NRC that they do not consent to high level radioactive waste being shipped to their state. We need to stand in solidarity with them.

**Autopsy IP** to assess aging impacts that can inform closing decisions in other plants.

**Financial Risk to New Yorkers** If the \$2.3+ billion Decommissioning Trust Fund is used up by Holtec, NY taxpayers may be left with any remaining costs. Holtec has said they will be responsible for any shortfall. Given their shady business reputation, can they be trusted?

### NRC Oversight

The NRC is an agency captured by the industry it is supposed to regulate. This explains why it has historically been lax, often at the expense of public health and safety. NRC has already made allowance to Holtec that could have severe consequences by approving Centralized Interim Storage in New Mexico. It is entirely possible that this so-called temporary storage could become permanent. Should a permanent repository be found, it would mean moving the waste twice, a terrible idea. Careful monitoring on site is the only solution we have at the current time.

The NRC needs to put people before industry profit and plan for worst case scenarios.

### How to comment

1) **Written comments** can be sent in to NRC as follows:

- a) The NRC encourages **electronic comment** submission through the Federal Rulemaking Website: Federal Rulemaking Website: Go to <https://www.regulations.gov> and search for Docket ID NRC-2021-0125.
- b) Address questions about Docket IDs in [Regulations.gov](https://www.regulations.gov) to Stacy Schumann: 301-415-0624, Stacy.Schumann@nrc.gov.
- c) This document is has been published in the Federal Register and is available online at [federalregister.gov/d/2021-15068](https://www.federalregister.gov/d/2021-15068) and on [govinfo.gov](https://www.govinfo.gov).
- d) **Mail Comments** to Office of Administration, Mail Stop: TWFN-7-A60M, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Program Management, Announcements and Editing Staff.

2) Comments should also be sent to your **Congressional representative** as well as to NYS and local elected representatives.

3) Comments can and should be **posted on Public Service Commission docket for IP Closure Task Force and Decommissioning Oversight Board**: Go to <https://documents.dps.ny.gov/public/Common/AdvanceSearch.aspx> and enter 21-01188 in the case number field. Once you get on the case page, click the tab for Post Comment.

**VITAL NUMBERS LOWER HUDSON GROUP SIERRA CLUB**

**Local Sierra Club website: [SierraLowerHudson.org](https://SierraLowerHudson.org)**

**Rockland Sierra Club website: [RocklandSierraClub.org](https://RocklandSierraClub.org)**

**For contact info on our core activists, please visit [SierraLowerHudson.org](https://SierraLowerHudson.org) and select About Us**

## Join us to work on environmental issues in Rockland County!

Rockland Sierra Club was one of the groups leading the successful effort to defeat plans to desalinate Hudson River water for Rockland's drinking water. We are now helping the County craft a sustainable water management policy. We are also working to limit new fossil fuel infrastructure such as Pilgrim crude oil pipelines, and have partnered with 350.org on efforts to address climate change through divestment and through promoting Climate Smart/Clean Energy Communities programs for towns and villages.

Rockland Sierra Club usually meets during the first week of each month. Check [RocklandSierraClub.org](http://RocklandSierraClub.org) for dates and locations. For more information: [pkurtz9@gmail.com](mailto:pkurtz9@gmail.com) or [deby1012@gmail.com](mailto:deby1012@gmail.com). Or call 845-709-0802.

## Want To Do More Than Just Talk About Politics?

Many of us think about politics. More of us seem to talk about politics.

Want to DO something about it?

Your local Sierra Club is looking for interested people to help evaluate candidates for public office. The work is voluntary and can be done at your convenience. We read the results of candidate questionnaires, and meet with candidates in selected races to speak with them about local environmental issues. At present we are meeting via Zoom.

We are a non-partisan organization and accept requests from all parties.

If interested contact Ed Berry at [berryled3@gmail.com](mailto:berryled3@gmail.com) for more information.



## Unbelievably Fabulous, Free, Fall Member Get-Together! September 26 at 3:00pm at Gerlach Park, Ossining

In lieu of our Sierra Club Lower Hudson Group annual Harvest Dance and fundraiser, we are holding a hike and picnic at the pavilion at Gerlach Park in Ossining. Sierra Club members and the public are welcome.

This will give us a chance to get together in-person outdoors. Please bring a mask, wearing is optional. We will observe 6 foot social distancing.

The hike will be led by Aaron Leonard, highly experienced and informative Sierra Club Outings Leader. He will be joined by longtime Sierra Club member and Outings Leader Leslie Hoellger. We'll also have with us ornithologist (that's a bird person, if you don't like too many syllables) Ponie Sheehan to point out birdish doings.

This will be a gentle out-and-back walk along the Old Croton Aqueduct trail.

Please sign up and agree to a liability waiver at [bit.ly/LHGPicnic](http://bit.ly/LHGPicnic).

If you won't be hiking, no problemo. Just be at the Gerlach Park pavilion by 5:00pm.

At 5:00pm we'll eat. Please bring whatever you want. A pre-event survey done in August revealed that most members would prefer to arrange their own food.

Activity is held rain or shine, but may be altered due to inclement weather.

Questions: Call George Klein at 914-772-3916.



# DOING HVAC THE DOWN TO EARTH WAY

by Liam Robb O'Hagan

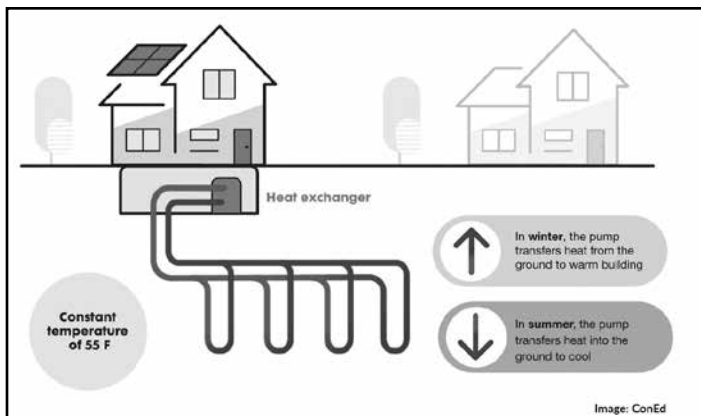
Is Geothermal heating and cooling about to have its moment? In July the Westchester County Association, an organization representing local businesses, NYSERDA and Sustainable Westchester launched a new application: <https://geopossibilities.ny.gov> that enables residents to quickly assess if geothermal heating solutions might work for them.

At the Zoom launch event Scott Smith, NYSERDA's Clean Heating & Cooling Program Manager, said that to achieve New York's 2050 electrification and decarbonization goals, most building heating and cooling systems will have to use ground-source heat pumps (GSHP). The grid would have to be impossibly large if we were to rely on air-source heat pumps.

Using the earth to heat and cool your home is a long-established way to reduce your reliance on fossil fuels and is the standard way of heating homes in Sweden. A heat pump transfers heat from one thing to another, either the ground or the surrounding air, which is much more efficient than generating heat by burning fossil fuels or using electric heaters.

Ground-source heat pumps are up to 50% more efficient than gas furnaces and 75% more efficient than heating with fuel oil. They use electricity to drive the pump.

A mix of water and food-grade antifreeze is cycled through pipes to the point a few feet below the surface where the earth is a stable year-round temperature of about 50-55° F. In summer, the heat in your home is transferred to the fluid and pumped into the earth, which sucks the warmth out of water before it is cycled back to the house.



The opposite happens in winter when the water in the pipes is warmed by the earth. Using a compressor this ground heat can be concentrated enough to heat a home. As the earth is warm compared to the frosty winter air this is much more efficient than using an air-source heat pump, even though that is better than burning fossil fuels

Although it is commonly called geothermal energy, a ground-source heat pump should not be confused with industrial scale Geothermal Energy projects that drill deeply into the crust to tap hot rocks or use natural hot spring water, to create steam to turn turbines that generate electricity.

Wide adoption of ground-source heat pumps has been held back by the high upfront costs of installation, but an increasing

number of Federal and State incentives are beginning to change that equation as outlined by Will Xia from ConEd during the launch of the geopossibilities website. ConEd has almost doubled the rebate and has extra incentives for users in gas-constrained areas of Westchester.

The website, which uses existing lot size and building specification data to estimate if geothermal is an option, doesn't take account of all the rebates available so it should be used as a starting point on your geothermal journey. It is not available in Rockland or Putnam counties.

Prior to the pandemic I had my home assessed for a geothermal system. The consultant advised me that, even with tax credits and other rebates it probably didn't make financial sense until I was faced with replacing the gas-powered furnace my home came with. With the permitting it is estimated the installation of the Geothermal would take 3-4 months, so I would have to time it with the expected demise of the furnace.

Recently, I woke to find a pool of water on my basement floor leaking from the furnace. The HVAC guy said I might only get a couple of more years out of the furnace, so I decided to revisit the geothermal option.

Although it was still more expensive than replacing the gas furnace, once I added in the deductions and the savings on my power bill it made sense. Which is important for those of us for whom being green is not motivation enough.

Another benefit is the equipment is inside and not exposed to the elements like my aging A/C units, which now need to be recharged with refrigerant annually. And thanks to Community Choice Aggregation, electricity I'd be using to power the pump is renewable.

My furnace also heats my domestic hot water which was the origin of the leak. The water heater had to be replaced, so I installed a hybrid or heat pump water heater, that will enable me to do away with the furnace completely. This uses the ambient heat in your home to heat your water. It is an air-sourced heat pump, but as temperature in your home is unlikely to drop below 65 degrees, it stills work efficiently, and the increased upfront cost is also easily paid off in energy savings.

When a neighbor installed a system last year, the drilling produced a slurry of ground up rock residue. This was collected behind one of those silt fences which seem to be standard on building sites now and carted off at the end of the project. I'm sure some of the finer particles made it into the storm water system in the murky water that seeped out the bottom of the silt fence. It made me think of toxic mine tailings, but this issue hasn't come up as a concern in my research into GSHP, even on sites that have a green perspective. Perhaps the scale is so small it's not a problem. Not all GSHP require drilling bore holes. Some use shallow trenches, existing wells or even ponds.

Even if the impact of drilling is an open question, it is unlikely to be dirtier than coal mining and natural gas fracking. We have to accept that our way of life will have some impact on the environment. Our goal should be to minimize these, and on balance this is far superior to other methods of heating your home.

# EXPLORE YOUR BACKYARD WITH A BOUNTIFUL CSA

by Gail Dutan

A couple of years ago, my husband and I were visiting a local greenhouse, looking for some trees to plant. We live in Carmel and visited Petersen's Patterson Greenhouses. Little did we know that this fourth generation, family owned business was running a CSA (Community Supported Agriculture) out of their expansive property. I'm not the type of girl who gets excited about new clothes or makeup. My favorite thing is shopping farmers markets and unboxing my weekly pickup from Peterson's. My share is mostly vegetables with occasional herbs and flowers and I'm not required to put in manual labor to work off my share. Some CSA's may offer eggs, meat or flowers as add-ons. Many people joined CSA's during the pandemic, and are continuing to enjoy the fun of connecting to a local farm and eating seasonally.

## **Here are a few CSAs in the Lower Hudson Group area:**

**Putnam:** Petersen's Patterson Greenhouses, 1169 Route 311, Paterson, NY 12563, 845-878-3431, [www.petersenspg.com](http://www.petersenspg.com)

**Westchester:** Eight Mile Creek Farm, pickup at The Organic Teaching Kitchen in Croton-on-Hudson <https://www.localharvest.org/eight-mile-creek-farm-M16275/csa#drops>

Stoneledge Farm, pickups in Rye, South Salem, Buchanan, White Plains, <https://www.localharvest.org/stoneledge-farm-llc-M316/csa>

**Rockland:** Rockland Farm Alliance, pickup at Cropsey Community Farm in New City, <https://www.rocklandfarm.org/2021csaprogram>

Stony Point Community Farm Share, pickup at RHO Building in Stony Point <https://www.localharvest.org/stony-point-community-farm-share-M71881>

## **Here are some links to find a CSA near you:**

[www.localharvest.org/csa/](http://www.localharvest.org/csa/)

[www.ams.usda.gov/local-food-directories/csas](http://www.ams.usda.gov/local-food-directories/csas)

If you can't find a CSA near you, check out [misfitsmarket.com](http://misfitsmarket.com) where they source fruits and vegetables that may not be picture perfect for the grocery store.

I love zucchini but I was getting tired of the usual stir fry. This is a great alternative to the traditional way which uses chickpeas. I prefer it because its lighter and a welcome option for people who suffer from Crohn's, colitis, IBS and other auto-immune disorders.

## **Zucchini Hummus**

1 large zucchini, cut into chunks  
1/2 cup tahini  
1 clove garlic, peeled  
1 TBS quality olive oil  
2 TBS lemon juice  
1 tsp cumin  
1 tsp smoked paprika  
1 tsp sea salt

Combine all the ingredients in a blender or food processor and process until smooth. Adjust seasonings to taste. Makes 4 servings.

**Sweet Variation: Cinnamon-Sugar Hummus:** Omit the garlic, cumin, and paprika. Add 1/4 cup sweetener of choice and 2 tsp cinnamon.

## **Do you belong to a CSA?**

Email Gail Dutan at  
[gail@primalpathhealthandwellness.com](mailto:gail@primalpathhealthandwellness.com)  
and share your experience!



*A weeks share from Petersen's...beans, cucumbers, beets, lettuces, garlic, zucchini, tomatoes, onions, carrots and corn.*

# VOTE

## 2021 ELECTION BALLOT EXECUTIVE COMMITTEE, SIERRA CLUB LOWER HUDSON GROUP VOTING DEADLINE DECEMBER 31, 2021

### YOU CAN VOTE ONLINE!

**Please check your email inbox toward the end of the year for your 2021 Sierra Club Atlantic Chapter and Lower Hudson Group ballots, which will be sent to all members with email addresses on file. You must choose to EITHER vote online OR by filling out this paper ballot.**

**There are five vacancies on our executive committee (“ExCom”).**

#### **Candidate Statement of Linda Brunner**

It’s been an adventure to be on the ExCom of the LHG these past few years. My role has primarily been as a liaison with organizations such as Friends of the Great Swamp in Putnam County and the Airport Coalition, and elected bodies (Westchester County Board of Legislators and Yonkers City Council), where our impact is increased by cooperation. Representing LHG in committees such as Container Gardening, and Steering for the Planting Westchester effort initiated by County Executive Latimer was another great way to cooperate. I especially appreciate being involved in vetting with candidates for election and determining whether we will endorse them. I am convinced that knowing whom we can rely on to vote and exercise their voice and power in line with Sierra Club principles and guidelines is critical.

#### **Candidate Statement of Gail Dutan**

I’ve been a member of Sierra Club since 1998 when I started doing the layout for our newsletter, Terra Firma, and have since printed and mail it from my family’s business. I helped put together the recipe booklet for the 2020 Harvest Dance fundraiser. My real passion is food and its effect on our health. I’ve recently been contributing interesting local foods and recipes to *Terra Firma*. I am really excited about the future of regenerative farming and the initiatives taking place in NY state. More than choosing whether to go plant-based or eat meat, it may come down to choosing sources that aren’t depleting our soil and causing climate change. The more we support these types of farmers, the more readily available food will be to all income groups.

#### **Candidate Statement of Marilyn Elie**

The most critical issue we face today is climate change. The solutions are about a lot more than keeping fossil fuels in the ground. Economic justice, reforming the way we generate electricity, planning for more resilient communities and electing progressive decision makers all have a part to play. Organizing and outreach that informs and inspires people to action is crucial. Closing Indian Point has been my focus for the the last 25 years. It has meant a lot of organizing, public education, demonstrations, legislative visits and, of course, emails! I would welcome an opportunity to bring these skills to bear in a wider arena by serving on the Executive Committee and would welcome your support.

#### **Candidate Statement of George Klein**

I ask for your vote in order to continue to oppose the expansion of the Westchester County Airport, continue our work to reform elections in NY state, find ways for our activists to work together more effectively, deepen our outreach to younger members, seek new ways for the group to communicate our values and messages more widely and forcefully to both members and the public, keep our group financially strong, encourage everyone to enjoy our great outdoors, and, personally for me, to continue work with our wonderful activists.

***Candidate Statements continued on next page***

**Candidate Statements continued from previous page**

**Candidate Statement of Bill Meyer**

Over the past several years I served the Lower Hudson Group as ExCom Chair and State Chapter Delegate and have previously served as Chapter Conservation Chair. This past year our group overcame many conservation, political and administrative challenges. I am proud to have provided leadership during this crucial period that helped the group not only to thrive but also to grow stronger. Together we successfully developed activities and programming online, expanded our outreach and conservation role in the region, managed small victories on our long-fought conservation issues and effectively increased our (virtual) presence in Albany. Send me back to the ExCom and I pledge to continue to build on this success, as well as to engage local members to join and become more active.

**Candidate Statement of Jerry Ravnitzky**

After retiring from school psychology in 1998, I started attending town board meetings and worked toward promoting honest and open government, becoming president of Concerned Residents of Carmel & Mahopac for the next 16 years, running successful food and toy drives as well as the highly successful CRCM Candidates Forums. I became a board member and then vice president of Community Watersheds Clean Water Coalition (CWCWC), a founding member of Stop the Algonquin Pipeline Expansion (SAPE), an ExCom member of Sierra LHG, and a member of Unified for Clean Energy (U4CE) working to decommission Indian Point safely. My goal now is to do all I can to keep fossil fuels in the ground and Indian Point safe, knowing that we must leave a safer environment for future generations. I would be honored to be re-elected an ExCom member of Sierra LHG.

**Candidate Statement of Sarah Wilson**

I have been our group treasurer since 2010. I support the work of our passionate, committed group ExCom. I have conducted carbon footprint workshops and promoted electric vehicles, Community Solar, and other green initiatives at numerous public information events. I run the quarterly Yorktown Repair Cafe, and support expanding the Repair Cafe concept to other towns in our area. I serve on the Board of Yorktown100, a grassroots community-based organization that seeks to reduce Greenhouse Gas (GHG) emissions in Yorktown, NY to net zero by 2040, and am on the Yorktown Climate Smart Communities Task Force. I also serve on the steering committee of Sustainable Putnam, whose mission is to develop sustainable communities across Putnam County. As a member of the ExCom I focus on efforts to solicit and encourage broader and deeper participation by you, our valued members, in activities of the LHG.



**BALLOT**

**Please vote for up to five candidates. If you vote by paper ballot, cut off this whole page and mail to Laura Burkhardt, 758 E. Crooked Hill Road, Pearl River, NY 10965 so that it is received no later than December 31, 2021. Member information, needed to verify that the member has not also voted online, will be separated from votes before votes are tabulated to ensure secrecy.**

**Vote here:**

- Linda Brunner
- Gail Dutan
- Marilyn Elie
- George Klein
- Bill Meyer
- Jerry Ravnitzky
- Sarah Wilson

**\*If you have a joint membership, vote here also:**

- Linda Brunner
- Gail Dutan
- Marilyn Elie
- George Klein
- Bill Meyer
- Jerry Ravnitzky
- Sarah Wilson

**\*If you have a single membership, this column will be ignored when votes are counted.**

**To help out with or be present at the vote counting in early January, 2022, please email [sierralowerhudsonelection@gmail.com](mailto:sierralowerhudsonelection@gmail.com) or call 845.290.0874 by 12/15/2021.**



**TERRA FIRMA**

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LOWER HUDSON GROUP

# SIERRA CLUB

WESTCHESTER, PUTNAM & ROCKLAND COUNTIES

*"Hurt not the earth, neither the sea nor the trees,"  
The Book of Revelations, 7:3*



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SEPTEMBER - DECEMBER 2021

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