

August 4, 2020

Portsmouth City Council
City Hall
Portsmouth, NH

RE: Renewable Energy

Honorable Mayor Becksted and City Councilors:

Well here's some good news. On June 3, a headline in the Guardian declared that *"Renewables Surpass Coal in US Energy Generation for First Time in 130 Years."* The article went on to explain why this is an encouraging development:

"Coal releases more planet-warming carbon dioxide than any other energy source, with scientists warning its use must be rapidly phased out to achieve net-zero emissions globally by 2050 and avoid the worst ravages of the climate crisis."

Yes, it's true, we are witnessing a paradigm shift. Local renewable energy installations are replacing grid-centric fossil fuel plants. So where exactly is Portsmouth situated along the spectrum? Regrettably, on this issue our city is on the wrong side of history.

Portsmouth's homes and businesses are mostly powered by Granite Shore's coal-fired Merrimack Station in Bow and Essential Power's gas-fired plant in Newington.¹ Eversource's recent \$126 million investment in upgrades to the transmission corridor from Madbury to Portsmouth² signals the industry's intent to keep our community dependent on fossil fuels well into the future.

The 60-year old Bow plant will soon be the last coal-burning plant in New England. As Merrimack Station accounts for only 2% of New England's electrical generation capacity, Portsmouth's reliance on coal relegates our city to that of an outlier.³

Many of the NH communities powered by Merrimack Station make a concerted effort to offset their dependence on coal by promoting renewable energy installations such as solar arrays. In contrast, Portsmouth's efforts in this regard have been feeble.

New Hampshire's political leadership has made it difficult to erect a utility-scale photovoltaic array that has an output in excess of one megawatt.⁴ What does that look like? A one-megawatt installation would require five contiguous acres, more or less, and would power 700 to 1,000 homes.

¹ A common misconception is that the 1,250 MW Seabrook Station powers NH's seacoast region. In fact, nearly all of that facility's electrical output is sent south.

² Eversource's Seacoast Reliability Project, so-called, was completed on June 1, 2020.

³ The Bow plant's 438 MW capacity is 2% of New England's 20,014 MW of available capacity, per US EIA.

⁴ I am counting on Councilor McEachern to fix this problem when he gets to Concord.

Yet, five-acre solar installations would fit in quite nicely at a number of locations in Portsmouth. The advantages are several:

- **Profitable** - The landowner profits;
- **Taxes** - The city collects property taxes on backland that might otherwise be difficult to access for other purposes;
- **Energy Diversification** - Portsmouth decreases its reliance on fossil fuels;
- **Reliable** - A shorter transmission route reduces the lines' vulnerability to extreme weather events;
- **Efficient** - Shorter transmission routes result in less electricity loss enroute.
- **Cost** - The cost of solar panels continues to trend downward;
- **Emissions** - Unlike coal and gas, solar farms generate no greenhouse gases;
- **Flexible** - Should the landowner subsequently desire a new use for the land, the solar installations are easily dismantled.

Sounds pretty good, no? Well, here's the problem: Your staff crafted zoning provisions that effectively ban such installations, citywide.

Admittedly, developers of solar farms face several hurdles in NH, not least of which are excessive fees for connection to the Eversource grid. Portsmouth's zoning ordinance should not be among the obstacles to the development of solar facilities in our city, certainly not as we enter the third decade of the 21st century. Should we fail to mitigate our impact on the climate, the disruption and hardships wrought by COVID-19 are but a preview of the cascading catastrophes that will befall our children and grandchildren.

I am writing to request that you direct your staff to draft an amendment to the zoning ordinance that would permit solar farms at appropriate locations, and to draft site plan review regulations to protect abutters, the environment, and taxpayers from improper installations. Such regulatory provisions are commonplace in New England. It is long past time for eco-municipality Portsmouth to develop land use policies that are responsive to the challenges that we face in the 21st century.

Thank you for your consideration,

A handwritten signature in black ink, appearing to read 'Tom Morgan', with a large, stylized initial 'T'.

Tom Morgan
39 Richards Avenue

cc: Planning Board
Conservation Commission