

Creating Sustainable Communities 04/22/24 Patrick Post - President/CEO Sustainable Planet USA Organization PO Box 2124 Naples, FL 34106 239-738-0115

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The net-zero home

Netzero homes that generate all the power they use are becoming more prevalent and more affordable. At the higher end are homes that use some of these techniques to create energy and lower their impact on the environment. Here are some features:

Passive solar design: Using south-facing windows to harvest the sun's warmth in winter and keep the house cooler in summer.

Insulated wall panels Solar thermal heating system: Evacuated tube solar collectors mounted on roof heat water used for in-floor radiant heating system in the home. Solar electric power

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Veggie-based insulation: Soy paint, corn-based carpet and Forest Stewardship Council certified lumber and framing materials

Wind power system: Wind turbines on the roof

Energy efficient

Stone: Locally quarried stone exterior

Gray water recovery: Water used in sinks, showers, washing machines is collected and used for toilet flushing and landscape irrigation.

Site prep: All trees removed are chipped for mulch; all excavated materials screened and used for road base, backfil and topsoil. Construction debris sorted and recycled.

Concrete: Recycled cement with local coal ash and local demolition concrete

Geo-thermal heating and cooling system: A heat recovery ventilation system. Geothermal heat pumps use stable ground temperatures for home heating and cooling. From 20 years of research, I have discovered how to connect to the Sun to supply most of the world's energy needs and this can be accomplished by utilizing existing well-known solar power and battery power storage technologies. My goal is to promote the development of sustainable transportation and housing throughout Florida, the U.S., and globally. This includes providing solar power for passenger and commercial vehicles, light-rail mass transit, residential housing, and small to large buildings. These concepts can be quickly and cost-effectively implemented to provide free, clean, and unlimited solar electricity to consumers as a replacement to fossil fuels.

I have a vision to create a 200-mile solar-powered light-rail train community transportation system with bicycle and pedestrian pathways from Marco Island to Tampa. There will be 200 transit stations spaced one mile apart and every station will have parking for 100 vehicles with 2000 solar panels on the parking structure roofs. Each panel will generate \$50+ annually x 2000 panels = \$100,000 x 200 stations = \$20 million each year in free and clean electricity. The cost to construct this solar-powered light-rail system with bicycle and pedestrian pathways would be \$25 million a mile x 200 miles = \$5 billion. This is the same estimated cost to build a 200-mile freeway, such as the state legislature proposed toll road in 2021 to connect Naples to Orlando. Developing these solar and power storage concepts will provide alternatives to costly and dirty fossil fuels by creating an improved infrastructure design with the capability of recharging the power storage batteries used in housing, buildings, trains, and vehicles at no cost to consumers.

Florida has shown its desire to provide funding to improve the transportation infrastructures in our state, and it is a priority of the government to encourage building more affordable housing. Sustainable and affordable housing should be constructed near this transit system in smaller residential units in homes, condos, and apartments, etc. at 400-1200 sq. ft. for each unit. We will seek the support of large private transportation and development groups to assist us in constructing this project. The State of Florida could provide most of the \$5 billion funding to build this innovative transportation project, and there are numerous state and federal grants available that could provide startup funding for creating thousands of affordable housing units.

Tesla Inc. is one of the few companies in the world that has the capability to manufacture and supply the necessary renewable energy equipment that is needed for the creation of this new transportation and affordable housing project. Tesla vehicles would be utilized in a car-share program with 10-20 vehicles at each station to rent by the hour, day, week, or month, and they will be recharged from solar power at the stations. We have requested that Tesla support the development of our renewable energy proposals and provide the equipment and vehicles for this project. Their direct involvement could provide \$1 billion in sales to Tesla over ten years.

This effort will not require any financial assistance from Tesla Inc. What we need from their company is technical support and selling their electric vehicles, solar panels, solar roof tiles, residential battery power storage, and industrial power storage for the transit stations. Possibly Tesla, Inc. would also consider manufacturing the solar-powered electric trains, and they would benefit significantly from their association with this project and by helping Florida become a new national and global leader in the development and implementation of renewable energy. Tesla has the credibility needed to effectively launch this solar transportation and affordable housing project and their involvement will quickly set everything into motion in state, county, and city governments. We will also create a bike-share system with 20 bikes at each station.

Increasing electric utility and vehicle fuel costs, rising rental rates, and the escalating cost to purchase homes and condos, with mortgages near 8%, have made it difficult for most people in Florida to find a quality and affordable place to live. With the tremendous demand for homes, condos, and apartments, limited supply, and rising population growth throughout Florida, we must immediately begin reinventing our housing and transportation infrastructures to create more livable communities. Constructing affordable housing units near the light-rail train line will provide conveniently located apartments, condos, and homes close to this transit system with attractive park-like bike and pedestrian pathways. I am familiar with the homebuilding process because I work for Kaye Lifestyle Homes, which builds custom homes from \$300 K to \$ 5 million.

It has been reported that Collier and Lee County are planning on spending \$4 billion during the next 20-25 years to improve the roadways in our communities to accommodate more vehicles and reduce traffic congestion. I am proposing that we should also spend \$4 billion on reducing vehicle dependence and improving the lives of our citizens by constructing an alternative to passenger vehicles. An example is creating a 160-mile grid system of small solar-powered light-rail community trains with bicycle and pedestrian pathways in Collier and Lee County. We can start with reconditioned vintage trolleys or use tram-style cars with a rear car just for bicycles. There would be 160 transit stations spaced roughly one mile apart with car and bike-share.

Two main routes would travel north and south, and 8-9 would go east and west along major roadways, and they would all be interconnected. Bicycle and pedestrian pathways would be created along both sides of the tracks in a park-like setting. The cost would be \$25 million a mile x 160 miles = \$4 billion. This transportation project will make our communities infinitely more livable, enjoyable, and healthier. It will help reduce the cost of living for numerous people by providing easier, faster, and less expensive alternatives to driving vehicles everywhere that we need to go. It would also make our local communities significantly more bicycle and pedestrian-friendly for our residents, snowbirds, and the millions of tourists who visit SW Florida annually.

In addition, one north and south light-rail line should be created from Marco Island to Tampa, which would be 200 miles x \$25 million a mile = \$5 billion. In March 2019, I contacted Florida Governor Ron DeSantis and the FDOT and requested that they provide funding to create this 200-mile light-rail train regional community train transit system for Southwest Florida, and we can start the construction in Collier and Lee County. Governor DeSantis forwarded my proposals to the FDOT, and they suggested that I contact our city and county governments for support.

The I-75 freeway in Florida was originally designed for the future addition of trains between the north and south lanes, and it makes sense to start constructing this community light-rail train system on this established route. I propose constructing the first 20-mile section of the rail line in the middle of I-75 starting at Golden Gate Parkway and ending at Corkscrew Road. It will take less time and cost to build this project by utilizing the existing freeway route and this will provide the least traffic disruptions. This is a better choice as compared to a proposed ten-year plan to widen the I-75 freeway for the same 20-mile section from six to eight lanes. The cost to taxpayers would be similar for both projects at \$25 million a mile x 20 miles = \$500 million.

My letter to Governor DeSantis in 2022, proposed the construction of a 50-mile community light-rail train system from Marco Island to Southwest Florida International Airport. It would go along Collier Blvd. to Highway 41 and continue north on 41 to downtown Naples. It would then go north along Goodlette-Frank Rd. and connect to the abandoned Amtrak railroad tracks north of Immokalee Road at Wiggens Pass Road. It would travel through North Naples, Bonita Springs, and Estero on the track right-of-way. At Estero Parkway, it would turn east and go over I-75 to reach Hertz Arena at Ben Hill Griffin Rd. It would then go north to Florida Gulf Coast University, Gulf Coast Mall, SW Florida Int. Airport, and JetBlue Park in Fort Myers. Another good route is Marco Island to the airport, primarily along Collier Boulevard, and it could continue north from the airport an additional 20 miles to connect with the Solar City of the Future Babcock Ranch.

The five PDF attachments below can be provided regarding the state and national energy proposals I have developed during the last 20 years. I recently contacted Tesla Inc. and requested that they become involved in this project by providing their technology expertise and their solar and residential/industrial battery power storage equipment, etc. Developing this sustainable energy project also will attract numerous new businesses to Southwest Florida.

Letter to Florida Governor Ron DeSantis - April 22, 2022 Letter to Catherine McKenna at the United Nations - April 22, 2022 Six past letters of support from state and federal leaders and FP&L (2006-2009) Summary renewable energy letter to President Biden - January 21, 2022 Business Plan to Tesla Inc - October 10, 2023

I look forward to your response to my proposals.

Kind regards,

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