

## INTRODUCTION

Hi, I am Michael Skelly of Bordentown New Jersey. I am offering comments on the draft Sustainability Plan for New Jersey Transit (NJT) on behalf of the Environmental Justice Task Force of Unitarian Universalist Faith Action (EJTF - UU Faith Action).

First, we are very pleased that New Jersey Transit is preparing a sustainability plan and look forward to its providing guidance, accountability, and action plans for NJT.

## GENERAL REMARKS

New Jersey Transit (NJT) is a key player in making New Jersey, its people, and natural systems safer, healthier, and more successful through NJT services and facilities. The people and organizations of New Jersey are embarking on a major transition away from the outdated and dangerous carbon-based and polluting transportation systems dominated by private passenger vehicles, light trucks and heavy freight. The old systems crisscross the state in a frantic whirl of activity that provides NJ with some of the longest and least convenient commute times in the country. The old ways also provide a persistent cloud of air pollution and unregulated air toxics that has earned Jersey the nickname "cancer alley". We urge New Jersey Transit to aggressively carry out its role as a Leader of building and operating the key systems that will lead to New Jersey's expanding future success and rapidly move us away from reliance on the environmental, social, and economic transportation mistakes of the past.

## SECTION BY SECTION COMMENTS ON THE DRAFT NJT SUSTAINABILITY PLAN

Looking at the "About NJ Transit" section of the draft Sustainability Plan we are very pleased to see the existing number of vehicles and facilities that are part of the New Jersey Transit System. However, we urge NJ Transit to add to the Sustainability Plan a significantly increased planning and development process that would more than double by 2035 ALL the facilities and vehicles that NJ Transit has listed. The demand for added transit infrastructure is due to rise dramatically and will easily double with the right financial commitments and planning. In a world more focused on health, disruption of natural systems, and efficiency, transit will no longer be a supplement to private transportation, but rather the dominant provider of transport along with active transport such as walking and biking. The scale of current operations is admirable but woefully inadequate for their new role in the years ahead. Environmental Justice Communities will become even more dependent upon transit as we go forward, and they must not be left behind in this major change in our society. Our State is dependent upon this dramatic change for its future success.

In the "Data Development" section Passenger Miles Traveled (PMT) is mentioned. The most important measure of progress is increase in ridership and customer satisfaction. Measuring and reporting these are the highest data priority.

It is also very useful to look at Transit PMT, but this must be put into context as to total PMT in New Jersey. Since, NJ Transit is part of the NJ Department of Transportation it should make every effort to collect PMT data from other sources to determine if they are going down at the same time Transit-based PMT are rising. The total transportation picture is the real measure of progress toward sustainability. NJ Transit and DOT should urge NJ policymakers to support simple data collection upgrades such as having single passenger vehicle, and light-duty trucks report the odometer reading every year when they register their vehicles.

"Data Development" should also add how many passengers arrive on foot, how many are handicapped and mobility impaired (such as users of wheelchairs, walkers, etc.), by bike (active mobility), or car throughout the system. This data will provide analysis of progress on making connections, integrating into community and economic development, and supporting reduction in greenhouse gases and air pollutants. While it may be difficult to capture this data, it is critical to measuring progress toward a truly sustainable transportation system.

Under "Decarbonization" the most effective approach is for NJ Transit to support and encourage the deep and lasting reduction of transport of physical things such as people and freight over a dispersed area. NJ Transit could use its local planning and Transit Development assistance programs to encourage local centers for work and high-speed communications. They could be new NJ Transit hubs for "Moving electrons rather than things". The local hubs would then be a more focused location to make more highly used transit connections within the general transport service catchment area.

In the "Where Are We Now?" section there is reference to aggregated energy types and conversion to common factors. This is useful for an overall measure of progress and should be retained, however, due to the varied impact of different fuels and their utilization (creating different levels of greenhouse gases and other environmental impacts) (and the varied responses and costs each fuel and use entails) the data on EACH of the different types and uses should be collected and reported publicly each year. This approach also should be applied to the disaggregation of CO<sub>2</sub> e data.

"Air Quality" GHG and CAP emission reduction goals should use impact on human health and impact on natural systems rather than adopting a "best available technology", accepting target numbers of the past or another prescriptive standard. Our ability to detect, and handle these pollutants are shifting rapidly over time and should be measured as to the desired outcomes rather than data handling convenience.

We applaud NJ Transit's spotlight "Environmental Justice and Equity" especially a commitment to improve local bus networks and service frequency. We urge NJ Transit to include in its Sustainability Plan real support for active transportation such as walking and biking security, storage, connections, and communications of up-to-date transit wait times and arrivals through an App and on-site electronic signage.

Safe, permanent, and convenient Biking and walking infrastructure separated from traffic will bring riders to NJ Transit and gain public support and significant participation in mass transit. Due to New Jersey's population and destination density, and relatively flat terrain, it is an ideal State for making this a significant mode of transportation for all. We would do well to follow the example of other North American Cities and our European counterparts making this change in transportation systems. We need to make this commitment early, by 2035, to avoid expanding or enhancing fossil-fuel driving infrastructure further.

"Where Are We Now?" The comment above regarding disaggregation of data also applies to CO2 e.

"Mobility and Accessibility" under "enhance connectivity" NJ Transit needs to expand light rail and passenger train service both for frequency and establishing new routes as real substitutes for car-oriented culture. True congestion mitigation will happen when the total volume of automobiles and trucks are reduced due to real transportation alternatives being built and operated such as 10 new light rail and passenger train routes in New Jersey.

"Mobility and Accessibility" under "enhance connectivity" NJ Transit needs to expand active transportation connections with walking and biking by establishing new routes and facilities that connect with walking and biking infrastructure safely separated from cars and trucks. NJ Transit should do so at a scale where it would see the addition of another million commuters a day being fed into the NJ Transit system by 2035.

"Climate Resilience" We applaud NJ Transit planning for climate resilience. NJ Transit also needs to make the repairs or upgrades necessary for the electric lines between Trenton and Newark to withstand extreme high temperature days. NJ Transit should also prepare for electricity outages by supplying NJT Facilities and vehicles with electricity from solar and wind and then store enough energy in Battery Energy Storage Systems (BESS) or Thermal Energy Storage Systems (TESS). Combination of wind, solar and local or wayside energy storage systems are practical for transit applications today. NJ Transit should not use fossil fuels, at any more locations including natural gas at Kearney, for emergency energy storage and distribution in an emergency.

The field of microgrids, local renewable power generation, and local energy storage is growing rapidly and there are many examples available. Of course, each situation needs to be carefully tailored to our specific circumstances.

These approaches are actively being tested and commercialized. As one of many examples: Wayside energy storage used for emergency power train movements were tested on a preliminary basis at Washington DC Metro according to <https://www.masstransitmag.com/rail/article/12240262/wayside-energy-storage-taking-regenerative-braking-savings-to-the-next-level>

Princeton University has long been using a sophisticated ice-based Thermal Energy Storage System. It allows them to collect energy in off-peak times and to generate and distribute thermal and electric energy at other times.

Microgrids and NJ Transit local energy systems can provide the ability to store electric power near the mass transportation systems in and around New Jersey. NJT microgrid could utilize High Voltage DC (HVDC) for distribution over in-state distances. HVDC is more efficient than the general grid with its up to 30 percent losses and the NJT microgrid would save a large proportion of the energy that is lost now. The microgrid or local energy system could carry massive amounts of electrical energy to the New Jersey transit facilities during off-peak period, to be transferred into local energy storage for later and during emergencies. During peak periods, that storage could allow electrically powered mass transportation system to operate off the regional grid and to continue to operate in the event of a system malfunction or power blackout on the grid.

"Waste" Overall is good. It should have food waste and other potentially recyclable or compostable waste streams identified and quantified. Food waste and compostable waste has been identified as a meaningful source of Green House Gases.

"Water" "Where are we Now?" Does water use vary throughout the year or is it flat as suggested by the average gallons per day and the estimate of gallons per year? Availability of water, conservation, and reuse opportunities may vary through the year too. Was this taken into consideration?

"Community Engagement" We strongly support looking at regional and international examples for further inspiration and insights.

"Community Engagement" I am a person with mobility and other handicaps. NJ Transit is essential to me. Please add to these goals and Communications with and consideration of people with disabilities. As the general population ages more and more people have visual, auditory, and mobility issues and they can be a significant portion of growing your customer base.

"Community Engagement" "Good Design Elements" We strongly support enhancing stations and shelters. Due to the relatively low cost and technical advances, shelters and transit stops should have security upgrades such as LED lighting and continuous camera and sound feeds powered by solar panels, backed-up by batteries. Shelters and transit stops should have secure places for bicycles to be stored. NJ Transit should coordinate with DOT to provide passengers/pedestrians safe traffic crossing signals with a good amount of time to cross. Crosswalk design and signaling dealing with cars, walkers and bikes are especially good in Netherlands and New Jersey should seek out and follow their examples here.

"Transit Oriented Development" We strongly favor transit-oriented development and transit village programs. Continue existing programs and increase them from year to year.

"Additional Spotlights" are very encouraging.

GAPS:

I believe that part of sustainability is economic sustainability. We will only be truly sustainable when we have an economy that is based on our sustainable way of life. When we educate, train, employ, and utilize locally owned and operated businesses in Environmental Justice Communities then they will truly be participating in New Jersey's new sustainable economy. NJ Transit should identify and advocate for current NJ Subsidies, tax breaks, outright grants, technical assistance should be diverted from fossil fuel enterprises and distributed to locally owned, minority, and women-owned small businesses and enterprises that will advance energy/materials conservation and transit-based sustainability. There was limited mention of job creation, job training, or educational programs for vo-tech students, etc. in the Draft Plan. Also, there was limited mention of partnering or coordinating with Department of Community Affairs, Universities, or others for business development, research and development, or increasing NJ-based manufacturing. The NJ Transit Sustainability Plan needs to address these areas and set goals, aspects, targets, actions, and metrics.

## CONCLUSIONS

Despite these detailed comments above and lengthy discussion of room for improvements, the overall effort by NJ Transit to create and follow up on a Sustainability Plan are very good and we are grateful for the opportunity to participate in the process.

Respectfully submitted,

Michael Skelly

on behalf of

Environmental Justice Task Force of UU Faith Action (EJTF – UU Faith Action)