
# Environmental Justice Task Force

Comments on New Jersey Energy Master Plan
September 12, 2019

## Introduction

Unitarian Universalist FaithAction NJ is a faith-based nonprofit that envisions a just New Jersey free from systemic oppression and greed, full of engaged people committed to each other, to our communities, and to the earth. Our comments on the Energy Master Plan reflect this vision along with the Unitarian Universalist principles of the inherent worth and dignity of every person; justice, equity and compassion in human relations; and respect for the interdependent web of all existence of which we are a part.

## General Comments

We thank the BPU for its hard work in producing this blueprint for getting to 100% clean energy by 2050. We strongly support that goal and would support a more aggressive approach, such as 100% clean energy by 2035.

We agree with and strongly support many of the actions discussed in the draft Energy Master Plan, which represents a thorough approach to reducing New Jersey's carbon footprint, while accounting for the many complexities. We have identified the following actions as particularly important to our mission of environmental justice:

- Community energy planning, especially in Environmental Justice communities.
- Electrifying the transportation sector and increasing clean transportation options in Low and Moderate Income and Environmental Justice communities.]
- Reducing emissions at the ports (and in nearby Environmental Justice communities).
- Establishing and growing a community solar program, to allow renters and others whose homes will not support solar panels to use solar energy.
- Using local workforce to develop solar rooftop and community solar in Low and Moderate Income communities.
- Trying to expand the reach of clean energy programs.
- Incentivizing transition to electrified appliances and buildings.

However, we are seriously concerned about other aspects of the Draft Energy Master Plan. It acknowledges that we need to reduce fossil fuel consumption and rely more on "clean energy sources". But it mistakenly considers radioactive fuels to be "clean" and it assumes that all of PSE&G's power plants will be able to continue to operate through 2050. The risk of an equipment failure that releases deadly radioactive gases increases over time. The EMP should assume that all of PSEG's nuclear power plants will be shut down no later than the date when their current Nuclear Regulatory Commission Licenses expire, and plan accordingly.

Also, the Draft EMP assumes we need more natural gas electric generating power plants, and more pipelines to convey more fracked gas from Pennsylvania. Instead, the state needs to promote the rapid development of solar and wind electric generating capacity and to establish

a moratorium on all new natural gas infrastructure (i.e. pipelines and gas powered electric generating plants. Otherwise, the gas suppliers will create economic disincentives for building solar and wind generating capacity.

We also have concerns about additional things, including:
- Redefining “clean energy” to include fossil fuels with carbon offsets or carbon capture and sequestration.
- Slow pace of electrification of NJ Transit, state fleets, and the state’s light-duty vehicles.
- Emphasis on electrifying heavy duty vehicles, while only *investigating* conversion to hydrogen fuel cell or other technology
- The absence of any specific plans or milestones for converting heavy-duty vehicles.
- Unclear plans for replacing natural gas and nuclear in the energy production mix.
- Lack of specifics on implementation of the Energy Master Plan.
- Leaves out important economic sectors, like agriculture.
- Doesn’t address implementation.
- Lacks milestones.
- Carbon trading in RGGI

Finally, we believe that there should be efforts to increase tree planting and local agriculture.

As we said initially, our central concern is the impact on Low and Moderate Income communities, but because each of the strategies affects everyone, including Low and Moderate Income communities, we will comment on all strategies and not just Strategy 6, Support Community Energy Planning and Action in Low and Moderate Income and Environmental Justice Communities.

# Transportation

We applaud the goals of electrifying the transportation sector, decreasing vehicle miles traveled, and reducing port and airport emissions.

**Electrifying transportation**. It is important to consider how to incentivize Low and Moderate Income households to buy clean energy vehicles. Since they are unlikely to be in the market for new electric cars, but will be in the market for used cars and lighter vehicles such as motorcycles and electric bicycles, these should be included in any rebate program.

Specific targets for converting each type of vehicle to clean energy — either electric or alternative fuel — must be set, in the form of annual milestones, in order to be sure of reaching the Global Warming Response Act (GWRA) target of 80% reduction in emissions below 2006 levels by 2050.

**Reducing vehicle miles traveled.**
If we clog our roads with single-passenger electric vehicles, we might have cleaner air and be contributing less to climate change, but our quality of life will not improve, and too many of us will lose too many hours sitting in traffic. We strongly believe that public transportation is important, and yet we know that there are too many parts of our state with too few buses, without rail lines. Also, rail lines are oriented toward New York and Philadelphia commuters, not just in their locations but also in their schedules. All of the routes in New Jersey should be carefully reviewed.

Ride-hailing companies such as Uber and Lyft want to be the new public transportation. We suggest that any such expansion be carefully considered, as it has a great capacity for increasing costs, with unclear and limited benefits for residents. Like traditional taxis, or

perhaps even worse, they clog the roads trolling for rides, expending energy out of proportion to the number of people needing rides.

Seattle is experimenting with a unique solution to these issues: their transit system has contracted with Via, a ride-hailing company, to provide first- and last-mile rides to stations along the city's new light rail line[1],[2]. When the line was built, the endpoints were the main consideration. Intermediate stations got little use, largely because of the lack of connecting transit. The Via cars operate in pool mode, not picking up individuals, and they do not go door-to-door, but meet people on a route close to their point of origin to take them to the light-rail station. This is a creative adaptation of the existing system to transportation reality. In addition, tracking the usage of the Via routes can lead to better planning, since it's more closely related to actual demand.

Reducing vehicle miles traveled would have so many benefits to New Jerseyans' quality of life, in addition to Greenhouse Gas (GHG) emissions reductions, that we should do it no matter what. Pollution, congestion, and wasted time are all burdens to every New Jerseyan. But it may also be the hardest piece of the plan to implement, given the need for behavioral changes on the part of individuals. We believe that the goals and the suggested actions sound good, but we have one additional suggestion: seek input from individuals on what changes they are willing to make and on how they would like the transportation system to work. This could be an adjunct to "community energy planning."

In addition, encouraging locally grown food can reduce transportation emissions. See the last section of these comments for more detail.

**Reducing port and airport emissions**. The Port Authority's actions to electrify its fleets and equipment is excellent news. However, because we support the call for mandatory emissions reductions in Environmental Justice communities from the New Jersey Environmental Justice Alliance (NJEJA), we believe the EMP needs to include yearly milestones and specific goals for emissions reductions around the ports and in Environmental Justice communities.

A California study[3] has found that the conversion to zero emission vehicles is slowed because corporations misclassify drivers as independent contractors. This relieves the corporations of the responsibility of converting to zero emission vehicles. Instead, the drivers bear the entire burden but have far fewer resources to comply with new laws. We need to outlaw this practice in New Jersey.

# Renewable Energy and DER

Our central concern is the redefinition of clean energy as "carbon neutral" rather than "carbon free." Carbon neutral means that fossil fuels are acceptable if they are coupled with offsets, such as renewable energy, energy efficiency, or forestry projects, or for which carbon capture and sequestration are used. The use of offsets seems to allow double counting, since

---

[1] King County Press Office, New on-demand shuttle service makes it more convenient than ever to take transit in southeast Seattle and Tukwila, https://www.kingcounty.gov/elected/executive/constantine/news/release/2019/April/16-transit-hubs-seattle-tukwila.aspx.

[2] This transit experiment is a cross between Uber and the bus, https://grist.org/video/seattle-has-a-new-transit-experiment-we-put-it-to-the-test/.

[3] Sam Appel and Carol Zabin, Truck Driver Misclassification: Climate, Labor, and Environmental Justice Impacts, UC Berkeley Labor Center, August 22, 2019, http://laborcenter.berkeley.edu/truck-driver-misclassification/.

renewable energy and energy efficiency projects are needed as part of the master plan anyway. Also, carbon capture and sequestration technologies are purely speculative.

In particular, we support mandatory emissions reductions in Environmental Justice communities and especially near the ports. The emissions include pollutants as well as GHGs and have disproportionate impact on the residents. This is an injustice and should be ended immediately. Furthermore, offsets from fossil fuel emissions in the form of renewable energy are likely to put clean sources near higher income communities and pollution-emitting sources in low income communities, adding to the injustice[4],[5].

Also, making renewable energy available to Low and Moderate Income and Environmental Justice communities is an essential part of getting New Jersey to 100% carbon free, and we laud the Community Solar program that is working toward this. Would other technologies, such as geothermal, also be candidates for community-based energy generation?

# Energy Efficiency

We fully support reducing energy usage as the best way to achieve a carbon free state, and we are delighted to hear your recommendation for increased funding for this purpose. Achieving equitable financing of this is equally important, since at present the Societal Benefits Charge (SBC) places the heaviest burden on Low and Moderate Income households. The SBC is set to be a fixed percentage of the gas and electricity bills, but Low and Moderate Income households pay a larger percentage of their income on utilities than do wealthier customers. As a result, this is a highly regressive tax.

Also, the SBC is used to incentivize energy efficiency programs that are effectively inaccessible to many Low and Moderate Income households, making it even more unfair. There are multiple issues hindering adoption of energy efficiency measures in Low and Moderate Income households. One is that they are often renters, so that they can't choose to adopt energy efficiency measures. Another is that even when they are owners, the houses may not be in a suitable condition for energy efficiency measures and expensive renovations would be required before such measures could even be considered.

Extensive knowledge of housing conditions in Low and Moderate Income communities and some creativity will be required to determine what kinds of energy efficiency measures would apply in these communities. To address the needs of renters, how can landlords be incentivized to adopt energy efficiency measures, especially when renters pay the utility bills?

The Community Energy Planning process proposed for Strategy 6 of the plan can be an important part of determining what energy efficiency measures apply best in Low and Moderate Income communities, if it is successful in providing knowledge of local housing conditions and ideas about what residents will actually be able to do to address their energy usage.

---

[4] Nicky Sheats, Achieving Emissions Reductions for Environmental Justice Communities through Climate Change Mitigation Policy, William & Mary Environmental Law and Policy Review, Volume 41, Issue 2, 2016, https://scholarship.law.wm.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1674&context=wmelpr.

[5] RichardToshiyuki Drury et al., Pollution Trading And Environmental Injustice: Los Angeles' FailedExperiment In Air Quality Policy, 9 DUKE ENVTL.L.&POL.F. 231, 257 (1999), https://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=1177&context=delpf.

Energy use is also reduced by planting trees around buildings. See the last section of these comments for more detail on the impacts of trees.

# Building Sector

We support converting the building sector to clean energy, but electrification isn't the only solution. There are geothermal systems that are have even lower lifetime cost than solar systems, and there are also solar thermal systems (passive solar) that can compete with solar PV for home heating. The entire range of potential solutions should be considered.

Massachusetts has a program, Heating Emergency Assistance Retrofit Task Weatherization Assistance Program (HEARTWAP)[6] that provides heating system repair and replacement services to low income households, usually those eligible for LIHEAP. The Massachusetts program is primarily for homeowners, and clearly would not apply directly to landlord-owned buildings, but possibly a variant of this program could be developed for landlords.

# Low and Moderate Income Actions

We strongly support Community Energy Planning and the Community Solar Pilot Program. All of the Energy Master Plan must take Low and Moderate Income households into account, just like every other household in the state.

New Jersey has recently rejoined RGGI, which is mostly a good thing, but we have concerns about the use of carbon trading. One of the effects of carbon trading has turned out to be a transfer of emission-producing plants to Low and Moderate Income communities. This is not acceptable. To overcome this problem with RGGI we support mandatory emissions reductions for Environmental Justice communities.

# Innovation

The "innovation economy" has historically ignored low and moderate income communities. Tech companies and start-ups have been reserved largely for those from elite educational institutions and largely white males. However, an innovation economy can be more inclusive of Low and Moderate Income individuals, and educational institutions can help make this happen. The state can fund programs to train Low and Moderate Income students at the state's post-secondary schools in the technologies needed. A number of scholars have looked at how to overcome the high dropout rate for women and minorities from STEM fields. Some of the most successful of these programs uses oollaborative learning to encourage retention[7],[8],[9].

---

[6] https://www.mass.gov/service-details/heating-system-repair-replacement-program-heartwap

[7] N. Griffeth et al., "An Undergraduate Research Experience Studying Ras and Ras Mutants," in IEEE Transactions on Education, vol. 59, no. 2, pp. 91-97, May 2016, https://ieeexplore.ieee.org/document/7206617.

[8] P. Heller, R. Keith, S. Anderson, "Teaching problem solving through cooperative grouping. part 1: Group versus individual problem solving", Amer. J. Phys., vol. 60, no. 7, pp. 627-636, Jul. 1992, https://d1b10bmlvqabco.cloudfront.net/attach/i5li1rs55o12sy/hsg4ulhusig4id/i6cjt6dficgt/Helleretal_92_AJP.pdf.

[9] P. Heller, M. Hollabaugh, "Teaching problem solving through cooperative grouping. Part 2: Designing problems and structuring groups", Amer. J. Phys., vol. 60, no. 7, pp. 637-644, Jul. 1992, https://d1b10bmlvqabco.cloudfront.net/attach/i5li1rs55o12sy/hsg4ulhusig4id/i6cjueacboet/HelleretalPart2_92_AJP.pdf.

# Implementation Considerations

Implementation of the EMP requires the mobilization of state government offices such as the DEP, DOT, DOC, DCA, DOA, etc. toward the zero- GHG goal by a date certain.  Otherwise, we're just going through the motions.

Here are some ways to assure maximum implementation of the new EMP:

- Gov Murphy should issue an Executive Order to all State departments directing them to devise and submit "EMP Action Plans" (AP) by a certain date to set forth the specific steps they will take to comply based on their current jurisdictional limits.
- The same APs will also propose legislative amendments to expand or clarify their jurisdiction limitations so as to maximize compliance.
- The APs will be reviewed and receive either approvals or rejection or "improvement needed," etc., from the Office of Clean Energy within a targeted time-frame.
- As part of this Executive Order, the Gov. will also declare a moratorium on all approvals sought for any fossil fuel power plants, pipelines, etc. until the BPU and the DEP have reconsidered any prior approvals and adopted such regulations as legally available and needed to fully implement the EMP and thereby comply with the state's clean energy goals and milestones toward a zero-GHG future.

An additional EMP implementation step would be to amend the Administrative Procedures Act (APA) to require an "EMP compliance analysis/statement" as a condition for the adoption, amendment or repeal of any regulation -- similar to various "impact statements" already required by agencies in rule-making proceedings on such topics as "employment / jobs impact," etc.

Coordinate the many organizations in New Jersey, including federal to local as well as state, and including businesses, non-profits, education, and governmental agencies, to work together on aspects of the plan. ANJEC and Sustainable Jersey, together with the many Green Teams in the state, and Rutgers Environmental Sciences Department and the county extension agents can all be helpful.

# Additional Topics

## Tree-Planting for GHG Emissions Reductions

Trees reduce atmospheric carbon in two primary ways:

• They sequester ("lock up") CO2 in their roots, trunks, stems and leaves while they grow, and in wood products after they are harvested.
• Trees near buildings can reduce heating and air conditioning demands, thereby reducing emissions associated with power production. In cities, they help reduce “heat island” effect by shading heat absorbent asphalt.

As trees mature, their impact on carbon reduction increases. For example a young, 1 inch pin oak in New Jersey reduces carbon by 20 pounds/year while a 12 inch pin oak in the same location reduces carbon by 425 pounds/year. So even if enough young trees are planted to replace the total diameter of a mature tree (for example, twelve 1 inch pin oaks to replace one 12 inch pin oak), it will be years before they catch up to the total carbon reduction.

While planting trees has helps reduce atmospheric carbon, preventing the removal of trees and forests for development has an even bigger impact. Removing forests to accommodate renewable energy projects makes the least sense of all and we would encourage dis-incentives for such projects.

Research has also been conducted into the effect of urban forests on energy demand and reduction of the urban heat-islands in Newark and Camden. The findings showed that urban forestry reduced heat-island effects and thereby reduced peak air conditioning demand[10].

These studies should be followed up on and massive urban forest plantings and maintenance efforts should be conducted throughout New Jersey. It will save energy and create local jobs. Reduction of urban heat-island effect may also reduce the incidence of adverse health effects on city residents, particularly low and moderate income residents who rely on ambient conditions for relief from heat in summer or increased heat demand due to winter winds. New Jersey's farm economy can benefit when New Jersey farmers supply the native trees, shrubs and other plants for such a program.

## The Role of Agriculture

We urge that the Department of Agriculture be one of the lead agencies participating in the policies and goals within the Energy Master Plan.

New Jersey is known as "The Garden State" due the vital role that agriculture, forestry, and food has played in New Jersey's economy and communities. It can use the response to energy issues and climate change as an opportunity to recapture its role as "the Garden State" through leadership and innovation in this field.

The Department of Agriculture has joint jurisdiction with the Department of Community Affairs over construction code development and over seasonal labor housing and farm buildings. These Codes need to be updated to deal with saving energy and protecting people.

New Jersey has been an important research and development hub for developing food crops in greenhouses and for space missions. The R&D work begun at Rutgers Eco-Complex in Burlington County and Stevens Institute should be continued and greatly expanded to develop crops and energy efficient farming practices that are suitable for energy efficient high-rise vertical farming in urban areas in New Jersey and beyond. This form of agriculture represents an opportunity to create jobs and provide food locally such as AeroFarms headquartered in Newark, NJ.

All 8.9 million of New Jersey's residents need food. Food shipped into New Jersey from out of state requires more energy for transport over long distances. New Jersey should adjust purchasing policies to increase the demand for local, organic food from New Jersey farmers in season by prisons, schools, state and local agencies. Likewise, there should be a program of providing local, organic food for Supplemental Nutrition Assistance Program (SNAP) recipients. SNAP provided 1.12 billion dollars assistance to over 817,000 New Jersey residents in 2017.

---

[10] Cynthia Rosenzweig, William D. Solecki, Lily Parshall, Mark Chopping, Gregory Pope & Richard Goldberg (2005) Characterizing the urban heat island in current and future climates in New Jersey, Global Environmental Change Part B: Environmental Hazards, 6:1, 51-62, DOI: 10.1016/j.hazards.2004.12.001, https://www.sciencedirect.com/science/article/abs/pii/S1464286705000057.