



# Environmental Justice Task Force

## Support for 100% Renewable Energy in NJ by 2035

March 21, 2018

As Unitarian Universalists, we have a moral imperative to address climate change. Our seventh principle is “respect for the interdependent web of all existence,” which refers to the moral imperative to care for the environment that nurtures us. The nationwide Unitarian Universalist Association issued a Statement of Conscience in 2006 that still holds up today:

...we will not acquiesce to the ongoing degradation and destruction of life that human actions are leaving to our children and grandchildren. We as Unitarian Universalists are called to join with others to halt practices that fuel global warming/climate change, to instigate sustainable alternatives, and to mitigate the impending effects of global warming/climate change with just and ethical responses.

### Support for Electric Power Generation

Because of the moral imperative to reduce the level of misery that will be caused by climate change, we support transitioning as fast as possible to 100% renewable generation of electricity in New Jersey. The year 2035 is the earliest transition currently proposed in the legislature. There is no bill presently in the NJ legislature that proposes a realistic path to this transition. We urge prompt action on a bill providing a realistic schedule toward obtaining all electric power sold in NJ from Class I renewable sources by 2035. We give our reasons for our position below.

This is not the only step that needs to be taken. To have a major impact on greenhouse gas (GHG) emissions, we also need to convert the transportation sector to electric vehicles, but for that to be most effective in reducing GHG emissions the power sector must first convert to renewables. Other necessary actions are:

- Increase energy efficiency
- Support community solar for low-income residents and make sure that they are not further disadvantaged by the transition.
- Guarantee stable markets for renewable energy
- Provide job retraining programs
- Fund both industry and research institutions to support innovation in the energy industry

### Assessments from the Scientific Community

The arguments for reducing GHG emissions become more compelling every year. Climate science can now say that it is 95-100% certain that human activity, especially greenhouse gas emissions, are the dominant cause of the current warming trend and rising sea levels. It has long been believed that 350 parts per million (*ppm* for short) is the highest safe concentration of CO<sub>2</sub> in our atmosphere, but according to NOAA, the concentration has risen to 402.9 ppm.

The Union of Concerned Scientists issued a “Warning to Humanity,” signed by 1700 scientists, in 1992, saying that “Human beings and the natural world are on a collision course. Human activities inflict harsh and often irreversible damage on the environment and on critical resources. If not checked, many of our current practices put at serious risk the future that we wish for human society and the plant and animal kingdoms, and may so alter the living world that it will be unable to sustain life in the manner that we know. Fundamental changes are urgent if we are to avoid the collision our present course will bring about.”

In November of last year, 15,372 scientists signed a second paper, called “World Scientists' Warning to Humanity: A Second Notice,” saying that humanity has failed to make progress on most of the problems. The consequence of failing to act will be “widespread misery and biodiversity loss.”

## Addressing Common Objections

Many say that we can't do it by 2035: It's too costly, it will destroy jobs, it would disrupt the grid, it's not politically possible, it's just too complicated. However, the climate continues to worsen, while the technology continues to develop. We address each of the points.

Let's look first at **cost**. According to a recent report from the investment firm Lazard, the lifetime cost of utility-scale wind is now the lowest of any type of power generation except geothermal. The lifetime cost of utility-scale solar is lower than natural gas but higher than wind. Because of this, we could at least prohibit building new fossil fuel burning plants in New Jersey. Even if New Jersey gets to 100% renewable electricity used in New Jersey, we could still have power plants generating and exporting fossil fuel based electricity to other states, and continue to suffer from industrial waste. We need to prevent this.

One obstacle to introducing more renewable sources of energy is that, although the lifetime cost is lower — making it a good investment in theory — the initial cost is higher. This makes regulatory predictability important, because investors need to know that the regulatory environment will support long-term investments. Also, they need confidence that a market will be there, making incentives important, such as providing a partial subsidy to low-income residents to pay for renewable energy.

A second issue involves **jobs**. Employment statistics show solar jobs have grown rapidly, from about 100,000 in 2010 to 250,000 in 2017 (nationwide). The solar tariff will certainly affect the number of jobs, but (again using Lazard's figures) it won't increase the lifetime cost of utility-scale solar above that of natural gas. There's also a scary downside on jobs: “Today, more than a million people and 650,000 jobs are at risk from flooding in the New York metropolitan region (NY/NJ/Conn), along with critical infrastructure such as power plants, rail yards, and water-treatment facilities. By 2050, nearly two million people and one million jobs would be threatened.”<sup>1</sup>

Another issue is potential **disruption of the grid**. The grid was engineered and built under the assumption that electricity must be used the moment it is generated, because there was no way to store it. That means solar and wind actually threaten the stability of the grid, because when electricity generation is higher than needed — e.g., because of high winds — something has to be done to get rid of the excess electricity or to stop its generation. With recent improvements in storage technology, this problem is minimized. When a solar or wind system

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<sup>1</sup> Quote from the Fourth Regional Plan for the New York-New Jersey-Connecticut area, from the Regional Plan Association (planners involved in GWB, Palisades, Governors Island redevelopment, Brooklyn revitalization).

produces excess electricity, we can store it, and draw the electricity out when the system is not producing enough.

As to **political possibility**, everything is politically impossible until it's technically and economically possible, and even then people will have to believe it must be done. The technical and economic possibility is already here, and moving faster than anyone predicted. We believe it's now our job to make it politically possible. We can't accept political impossibility as a reason to oppose something that's otherwise possible and that must be done.

The final objection is that it's just too complicated. Generating electricity in New Jersey from 100% renewable sources is complicated, technically, economically, and politically. But we have done many complicated things in the US, and now is not the time to stop. In the 1960's, the US developed a moon program that took less than 10 years to get to the moon. While converting to 100% renewables will require action by everyone, making it more difficult to coordinate, it is even more important to do. The task is difficult, but the threat to our civilization is so dire that we must act now.

## Conclusion

Almost all scientists concur that global warming and sea level rise are caused primarily by GHG emissions from human-activities. These changes in our environment will cause untold misery to us and to our descendants. We must address it now. One important action that we can take in New Jersey will be to transition the power generation in New Jersey to 100% renewable energy. This will not only eliminate GHG emissions from power generation, but also support reductions in the transportation sector. We must also support additional actions, and will begin exploring that immediately.

## Resources

Unitarian Universalist Association Statement of Conscience on Climate Change, <https://www.uua.org/action/statements/threat-global-warmingclimate-change>, 2006.

Union of Concerned Scientists, World Scientists Warning to Humanity, <https://www.ucsusa.org/about/1992-world-scientists.html>, 1992.

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