

TO: Massachusetts Department of Public Utilities

FROM: Kirstin Beatty, Director of Last Tree Laws
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RE: MA DPU **21-80, 21-81, 21-82** (Grid Modernization)

Regarding the plans to modernize the grid, there has been a complete failure by the utilities to address the problems of environmental and public health described in my own and as well as other's submissions on DPU docket 20-69 and previous dockets. Similarly, the economic and legal considerations I mentioned in my DPU docket 20-69 presentation have been ignored. I request permission to remain active in this process, to question utility plans, and to request and be provided information.

Nowhere is there any mention of protecting trees, despite their importance to wildlife habitat and projections that setting aside 25% of global land for forest¹ – not saplings – could prevent some of the catastrophe of global warming by absorbing 25% of carbon emissions. Massachusetts utilities regularly cut down trees by power lines, for grid maintenance, and in particular for erection of solar farms. **By allowing utilities to shirk any responsibility for tree protections, we are neglecting the greater goal of preventing a global weather crisis, besides an extinction march of many different species.**

Utilities appear to have completely **neglected improving power quality for all customers, with Eversource reserving improvements only to 'commercial and industrial customers with sensitive equipment'**² despite the damage from poor power quality to public health, property, and, ironically, energy conservation.³ Utilities propose using Volt/VAr Optimization (VVO) to reduce power quality problems in areas undefined except, apparently, not for the purpose of addressing meter-derived power quality problems on household electrical lines.

Given that utilities are only supposed to serve 60 hertz electricity and given that the opposite is true, there needs to be some accountability and clear public reporting of power quality. **Any utility plan proposed should include a routine assessment of grid power quality with public reporting, including assessment of line power quality in homes** as affected by connections to the grid. In addition, there needs to be a **comparison of the costs and efficacy of methods to improve power quality**, including whether non-use of smart meters and the smart grid is most effective. Improving power quality is a cost, so utilities may not wish to make investments, and so the state must require good power quality and further require independent assessment.

There is **no provision for installation of a circuit breaker for each smart meter**, despite Nina Beety's DPU docket 20-69 explanation of National Electric Code requirements. Nor is there any

1 J.-F. Bastin, Y. Finegold, C. Garcia, D. Mollicone, M. Rezende, D. Routh, C. M. Zohner, T. W. Crowther (2019 July) The global tree restoration potential. *Science* 365 (6448): 76-79 DOI: 10.1126/science.aax0848

2 DPU 21-80, Direct Testimony of Jennifer A. Schilling, Exhibit ES-JAS-1; July 1, 2021; page 14, lines 5-6

3 For examples, see submissions in docket 20-69 by myself (property, power quality, other economic costs), Nina Beety (property, power quality), Liz Barris (numerous topics) and Patricia Burke (health)

consideration or provision for overcurrent, as Nina Beety also discusses in her 20-69 submission, within households. Just as power quality needs to be routinely assessed and reported, so too **overcurrent and also magnetic and electric fields need to be assessed, reported, and addressed** since these can be public health hazards. There also needs to be an **honest and independent assessment of how fires sparked by the grid in the environment and households can be mitigated.**

Nor is there any provision for avoiding wireless and opt-out fees, despite reports on the 20-69 and previous dockets of persons becoming ill from smart meters, despite environmental impacts, and despite Ed Friedman's filing in Maine federal district court alleging disability violations from opt-out fees (Ed Friedman v. Central Maine Power Company). None volunteer to halt wireless usage, despite a recent decision by the D.C. circuit stating that the FCC's wireless guidelines are 'arbitrary and capricious' in relation to public and environmental health considerations (p. 19 of opinion in Environmental Health Trust et al v. FCC and USA). Furthering a wireless smart grid is therefore a risky investment.

Power quality, logging, and wireless connectivity are among major reasons I cannot support alternative energy, despite the assumption these will help amend global weather patterns. Because of the public health impacts, recommendations alternative energy be fostered in environmental justice communities are likely misguided and harmful. I **recommend further investigation into whether the amount of logging, wireless, and power quality problems leave a negative sustainability and public health balance**, and recommend inviting research and explication from experts without industry connections to answer or investigate these questions. Unfortunately, such an investigation must be funded by the state.

Additionally, nowhere is there any discussion of likely smart grid **overbilling, excessive costs, or privacy losses.**⁴ None of the utilities have done a cost comparison to electromechanical meters, nor justified the digitization of the grid except as necessary for alternative energy – I recommend questioning this assumption. All utilities appear to propose plans for embracing more and more access to all kinds of energy, although building such infrastructure is costly and avoids a reality that we need to start drawing down energy consumption.

In addition, utilities appear to propose using funds for customer education and lobbying – seriously? If so, shouldn't the utilities be providing information on wireless and power quality health and property hazards?

Allowing utilities a free-for-all grid modernization and unregulated 'education' funds wrongly implies that wind, solar, and all of the grid modernization anywhere is good – when in fact we must tightly regulate grid costs, grid safety, and grid placement.

4 Ibid.