

**Testimony on [PHB 5281](#) An Act Capping The Fixed Customer Charge for the Residential Customers of
Electric Distribution Companies
AND on All Proposed Legislation on Fixed Distribution Rate Caps
Energy & Technology Committee
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Co-Chair Doyle, Co-Chair Reed, Committee Members and staff, my name is Joel Gordes. I am an independent energy consultant working out of West Hartford, CT. I offer this testimony on my own behalf representing no client.

While I was active in the passage of PA 91-248, the 1991 legislation and ensuing DPUC Docket 91-07-20 on what is termed “decoupling”, I oppose its use as a justification to raise the fixed distribution rate that has recently taken place. It appears it will be used as a further excuse to raise that fixed charge even more according to Eversource’s Charles Goodwin. While such a rate increase will have many effects, one that has seemingly been ignored is its potential to impair the security of the electric grid. In fact, this increase is in conflict with the foremost state law on energy, 16a-35k, The Connecticut Energy Policy Act. Its nine policy points and other portions include several references to energy security matters. (See Appendix A at page 4).

In many ways, this rate hike is indicative of a larger problem which is the need for the state to mandate its utilities to fashion new business models. The current model is largely unmindful of the major changes in technology that have and are taking place since the formation of utility monopolies at the turn of the last century. At the same time there is a growing need to build a more secure grid architecture. If all we do is cap this rate, it will be half-measure that does not get to the crux of the matter. However, this increased fixed charge, and the dangerous trend it sets, has an immediate and chilling effect that must be challenged.

In explaining the security/resilience tie-ins, I use the concept of a “security lens” defined as examining every decision, statement or action to determine its effects on energy security as related to all physical and cyber realms. This is of utmost importance since decisions are often made on highly important as well as seemingly mundane matters without fully thinking through their security implications.

Eversources’ increase in fixed residential distribution charges (already high by industry standards) sets a bad trend. In doing so they cite the erosion of revenues and point to energy efficiency efforts and emerging distributed generation (DG) as the culprits. The effect of this is to penalize those who undertake energy efficiency and/or renewable sources by raising this inescapable charge and wiping out portions of owner savings. It stands as a disincentive for others to follow suit.¹ It may also adversely affect the ability of the state to meet its RPS goals and greenhouse gas reduction goals. Instead, Eversource argues for projects like the Northern Pass transmission line from remote regions of Canadian; itself a very questionable security risk.

But the most important question(s) is “Have Eversource upper level decision-makers (and regulators) even considered what effect(s) this rate hike and the disincentives it foments might have on both physical and cyber security?” These disincentives to distributed generation are directly related and leading energy authorities,

¹ As an aside, since Eversource administers the energy efficiency programs in its service territory and is paid a hefty management fee, one must ask if Eversource also has a conflict of interest? Should a third party provider without this conflict such as is used in Vermont be considered to take over this function in Connecticut?

including immediate past FERC Chairman John Wellinghoff, see DG and grid decentralization as essential to security. These are the very technologies and approach we are crippling with this rate hike trend. Recently, Attorney Wellinghoff has become increasingly vocal on security challenges and in a recent interview related:²

Well, it's a huge challenge but I believe the best way to address that challenge is, again, to move to more distributed systems because to the extent we can move to a more distributed grid that has millions of nodes of generation instead of hundreds or thousands as we have now, and tens of millions of nodes of assets that can all be separated virtually instantaneously electronically from each other, we then have a much more vibrant system that is virtually impossible to attack as a whole.Those types of distributed systems and the ability to have those distributed systems quickly go to a microgrid isolated system is another reason why the Defense Department in this country is looking to go to microgrids with all of their bases in the US.³ [It] is the real solution ultimately at the end of the line... We can put these patches and fixes in place for the system we have but that system will remain vulnerable as long as it is a system that depends upon a very few number of nodes to keep an interconnect up and operating.

Nor is Wellinghoff alone and the basis for his opinion has a long history. Amory Lovins, energy security guru and founder of Rocky Mountain Institute in his newest book, *Reinventing Fire* cautions:

The more distributed the generators and the more granular and islandable the resources, the more the large - scale cascading grid failures that now are nearly inevitable could be made nearly impossible by design, and the more the grid that undergirds our nation's economic and military might could stop undercutting it.⁴ ...Second, if resources can compete fairly at all scales, some, and perhaps much, of the transmission built for a centralized vision of the future grid could quickly become superfluous.⁵

Put another way, regulators and policymakers should be acutely aware that large, very costly transmission projects may become stranded cost in the future and may even be within their terms of office.

As one who shares Wellinghoff's and Lovins' view, I am also firmly on the record in favor of utilities playing a primary role in the deployment of these distributed sources⁶ and microgrids--and profiting handsomely from it BUT not by increasing the fixed distribution charge but via a new business model. Almost four years ago, in a published OP-ED this author wrote:

...but the key to successful implementation will be to compensate utilities with equal or better rates of return so they cooperate in installation of these systems. We have taken similar steps for their involvement in energy efficiency programs since 1988. Only by making the utilities monetarily whole can a secure, reliable distributed generation plan become a reality.⁷

Instead, in the wake of the Two Storms, where 800,000 customers, in each of two episodes lost power for extended periods up to 12 days, Eversource and UI are putting hundreds of millions of ratepayer dollars into rebuilding the tightly-coupled, complex system we call a centralized grid. It is essentially the same architecture but with some "hardening" applicable mostly just for storms. It ignores an all-hazards approach which includes looking at numerous threats, including cybersecurity. This cultural lag is akin to French adoption of "hardening" their defenses with the Maginot Line built after WWI. This proved totally useless on the eve of

² Wellinghoff on Security. EnergyBiz Webinar. June 15, 2014. At ~47:50 on the recording.

³] In 1993, as an OPM/Energy Div. manager, Mr. Gordes made efforts to interest the USAF in Connecticut-made gas turbines for, among other values, to "...provide for: 4) a higher degree of base security." [See this link.](#)

⁴ Lovins, Amory et al. *Reinventing Fire*, p. 214. 2011. Chelsea Green Publishing

⁵ OP cit. Lovins, p. 216

⁶ For the record, this writer was also chief author of PA 88-57 providing enhanced rate of return for energy conservation programs

⁷ Gordes Joel N. *Smaller Electric Grids Safe, Reliable*. The Hartford Courant. September 4, 2011. P. C1.

WWII due to changes in the technology of warfare allowing fast-moving Panzer divisions using tanks to bypass these fixed gun emplacements.

What Eversource leadership now lacks and needs is not a new name but a new vision for a profitable business model that incorporates rather than penalizes these distributed resources and moves toward decentralization. The NY Public Service Commission has published a forward-looking study on how such a transition might unfold. Their [*Reforming the Energy Vision*](#) sees the utilities becoming Distributed System Platform Providers (DSPP's) to promote DG rather than, like Eversource , stunt its growth. This failure to recognize the need for a new business model by their management begs for legislators and regulators to develop a plan, similar to New York's, that may even include a rate cap.

Thank you for your time and attention.

CHAPTER 298

ENERGY UTILIZATION AND CONSERVATION

Sec. 16a-35k. Legislative findings and policy. The general assembly finds that the state of Connecticut is severely disadvantaged by its lack of primary energy resources; that primarily as a result of past policies and tendencies, the state has become dependent upon petroleum as an energy source; that national energy policies do not preclude the recurrence of serious problems arising from this dependence during petroleum shortages; that the increase in oil prices since the 1973 oil embargo has had a major impact on the state; that the economy has suffered directly because of our dependence on petroleum and constraints upon the rate of conversion to alternatives; that other conventional sources of energy are subject to constraints involving supply, transportation, cost and environmental, health and safety considerations; and that the state must address these problems by conserving energy, increasing the efficiency of energy utilization and developing renewable energy sources. The general assembly further finds that energy use has a profound impact on the society, economy and environment of the state, particularly in its impact on low and moderate-income households and inter-relationship with population growth, high density urbanization, industrial well-being, resource utilization, technological development and social advancement, and that energy is critically important to the overall welfare and development of our society. **Therefore, the general assembly declares that it is the policy of the state of Connecticut to (1) conserve energy resources by avoiding unnecessary and wasteful consumption; (2) consume energy resources in the most efficient manner feasible; (3) develop and utilize renewable energy resources, such as solar and wind energy, to the maximum practicable extent; (4) diversify the state's energy supply mix; (5) where practicable, replace energy resources vulnerable to interruption due to circumstances beyond the state's control with those less vulnerable; (6) assist citizens and businesses in implementing measures to reduce energy consumption and costs; (7) ensure that low-income households can meet essential energy needs; (8) maintain planning and preparedness capabilities necessary to deal effectively with future energy supply interruptions and (9) when available energy alternatives are equivalent, give preference for capacity additions first to conservation and load management.** The state shall seek all possible ways to implement this policy through public education and cooperative efforts involving the federal government, regional organizations, municipal governments, other public and private organizations and concerned individuals, using all practical means and measures, including financial and technical assistance, in a manner calculated to promote the general welfare by creating and maintaining conditions under which energy can be utilized effectively and efficiently. The general assembly further declares that it is the continuing responsibility of the state to use all means consistent with other essential considerations of state policy to improve and coordinate the plans, functions, programs and resources of the state to attain the objectives stated herein without harm to the environment, risk to health or safety or other undesirable or unintended consequences, to preserve wherever possible a society which supports a diversity and variety of individual choice, to achieve a balance between population and resource use which will permit the maintenance of adequate living standards and a sharing of life's amenities among all citizens, and to enhance the utilization of renewable resources so that the availability of nonrenewable resources can be extended to future generations. **The general assembly declares that the energy policy is essential to the preservation and enhancement of the health, safety and general welfare of the people** of the state and that its implementation therefore constitutes a significant and valid public purpose for all state actions.

(P.A. 78-262, S. 1, 2; P.A. 79-449, S. 1, 7; P.A. 82-222, S. 1, 7; P.A. 92-106, S. 1.)

History: P.A. 79-449 amended section to point out constraints on conversion to alternative forms of energy, including conventional sources of energy and to include consideration of development of renewable forms of energy; P.A. 92-222 applied