

**THE STATE OF NEW HAMPSHIRE  
before the  
PUBLIC UTILITIES COMMISSION**

**CORE Energy Efficiency Program  
Home Performance with Energy Star**

**Docket No. DE 10-188**

**Public Service Company of New Hampshire's Closing Statement**

In accordance with the Commission's Secretarial letter of June 29, 2012, Public Service Company of New Hampshire (hereinafter "PSNH" or the "Company") is submitting the following Closing Statement. For the reasons set forth below, PSNH requests that the Commission approve the "Home Performance with ENERGY STAR" ("HPwES") program as a permanent CORE program and allow PSNH to earn an incentive on all energy savings as is the standard for all other CORE efficiency programs.

The HPwES is described in detail in Attachment GEG/TP-1 to the Joint Testimony of Gilbert E. Gelineau, Jr. and Thomas Palma (Exhibit 29). In summary, HPwES is a program sponsored by the state's utilities, in partnership with the U.S. Environmental Protection Agency and U.S. Department of Energy, which offers a comprehensive, whole-house approach to improving energy efficiency and comfort at home, while helping to protect the environment.

**1. PSNH Has Followed the Commission's Direction in Presenting the Fuel Neutral Proposal**

In early 2009, the Commission determined that it was not legally precluded from approving the use of System Benefits Charge ("SBC") funds to pay for nonelectric measures.

Docket No. DE 08-120, Order No. 24,930, slip op. at 19 (January 5, 2009).<sup>1</sup> Thus, the term “ancillary savings” and the concept of “public benefits related to the provision of electricity” were added to the discussion of residential energy efficiency programs. The legislature could have crafted the language more narrowly and limited the use of SBC revenues to electric only benefits, but it did not. In the same order the Commission endorsed the concept of whole house benefits in the delivery of energy efficiency programs to residential customers.<sup>2</sup> In their design of the HPwES program and their operation of the program on a pilot basis, PSNH and Unitil Energy Systems (“UES”) embraced these policy directives from the Commission.

The Commission proceeded cautiously, accepting a pilot program approach to the fuel-blind Home Energy Solutions proposal. Continuing the finding from Order 24,930 that “a fuel-blind proposal ha[s] some potential,” the Commission encouraged the Companies to perform a complete evaluation of whether the “pilot is a cost effective program that merits continuation beyond 2009.” Docket No. DE 08-120, Order No. 24,974 slip op. at 5 and 6 (June 4, 2009).

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<sup>1</sup> “RSA 374-F:3, VI states that SBC revenue, as approved by the Commission, ‘may be used to fund public benefits related to the provision of electricity.’ (Emphasis added). There is no question that electric efficiency measures ancillary to the HES weatherization services, such as the Energy Star appliance rebate and Energy Star lighting programs, relate to the provision of electric service. Furthermore, weatherization of any home which uses electric-powered air conditioning or fans for cooling provides system benefits by reducing electricity usage during the peak summer electric loads that are associated with electric home cooling measures. In addition, most non-electric heating systems, such as fuel oil, propane and wood-fired boilers and furnaces, also use electricity to power pumps or fans to circulate water and air. Although energy efficiency measures such as improved insulation and air sealing may primarily save non-electric fuels in non-electrically heated buildings, there can often be significant electric savings from such measures as well.” Order No. 24,930, slip op. at 19 -20 (emphasis in original).

<sup>2</sup> “RSA 374-F:3, X concerns ‘Energy Efficiency,’ not just electrical efficiency, calls for reducing ‘market barriers to investments in energy efficiency,’ and states that ‘[u]tility sponsored energy efficiency programs should target cost-effective opportunities that may otherwise be lost due to market barriers.’ Running programs that attempt to isolate and target energy efficiency to a single fuel source, such as electricity, may in itself be a market barrier when energy efficiency measures delivered as a comprehensive package, such as systematic whole house retrofits that reduce multiple energy uses and costs, including the size and cost of high efficiency replacement HVAC systems, may be the overall most cost-effective approach to achieving energy efficiency and conservation of all fuel sources. We find it consistent with the purpose of RSA 374-F to broadly construe our authority to approve utility sponsored energy efficiency programs in the state of New Hampshire. We also agree with PSNH that the Utilities could benefit from the experience of running a fuel blind pilot program to prepare for the prospect of using RGGI funds to support more energy efficiency measures.” *Id.* at 20.

Three evaluations were conducted of this program: “a preliminary evaluation conducted by KEMA, Inc., an impact evaluation conducted by The Cadmus Group, Inc. (“Cadmus”), and a process evaluation also conducted by Cadmus.” Exhibit 29 at 13.<sup>3</sup> PSNH and UES incorporated many of the recommendations from these evaluations including having the HPwES auditors actually install the six compact fluorescent bulbs supplied during the audit in the optimal household locations where they will offer the most savings. Exhibit 29 at 17. Through RGGI funds and now BetterBuildings Program, customers may finance their contribution to the cost of the installed energy efficiency measures. *Id.*

The original proposal for the fuel-blind Home Energy Solutions service was supported by the Office of Energy and Planning; the Department of Environmental Services; the Home Builders & Remodelers Association; LighTec, Inc.; Granite State Electric Company d/b/a National Grid (National Grid) and the New Hampshire Electric Cooperative, Inc. (NHEC) (Order No. 24,974 at 2). In this portion of the proceeding, the New Hampshire Community Action Association, The Way Home, the Office of Energy and Planning and the Office of Consumer Advocate participated in the hearings and supported the utilities’ HPwES proposal. In early 2011, the U.S. Environmental Protection Agency presented its ENERGY STAR Emerging Markets Excellence Award to New Hampshire’s HPwES Program. Exhibit 29 at 18. Other neighboring states run programs similar to the HPwES design proposed by UES and PSNH. *Id.* at 21.

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<sup>3</sup> The Cadmus evaluations were marked as Exhibits 31 and 32.

## **2. Staff's Testimony Has Major Flaws**

Despite broad support from sister state agencies, all the state's utilities, the OCA, non-governmental organizations, and consumers, the Commission Staff question the fairness of the HPwES program, and, contrary to the Commission precedents cited above, posit that the HPwES is inconsistent with the Electric Restructuring Statute. *See* Exhibit 35, Staff Direct Testimony of James J. Cunningham and Al-Azad Iqbal.

The Staff's position is based upon the numbers that appear in their Schedule 1 attached to their testimony. Schedule 1 is so flawed that it must be disregarded.

The sources of the data in Staff Schedule 1 are:

- 1) Census Bureau and DOE statistics for fuel consumption in NH homes for 2010,
- 2) Estimated heating usage based on 2010 Natural Gas Reports on file with the Commission, with MMBtu converted to kWh, and
- 3) Estimated power and light electricity usage based on 600 kWh per month. Staff Direct Testimony, Exhibit 35 at 12.<sup>4</sup>

PSNH can agree that the average power and light usage for a residential household is 600 kilowatt-hours a month. PSNH disagrees as to the efficacy of using the other data sources and how they were used. The issue is whether an outside source should be relied upon as opposed to unchallenged figures from the utilities' customer records. Staff insists that (a) customer usage data from the Census Bureau and the Department of Energy ("DOE") are more reliable than

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<sup>4</sup> PSNH notes that the references on Staff Schedule 1 differ somewhat from those stated in Staff's testimony. Staff Schedule 1 indicates the data is derived from "(1) Source: US Census Bureau, 2009 NH housing units <http://quickfacts.census.gov/gfd/states/33000.html>; (2) DOE Energy Efficiency & Renewables, Energy Consumption in NH homes. <http://apps1.eere.energy.gov/states/residential.cfm/state=NH>; (3) Based on and (sic) estimated usage of 600 kWh per month; (4) Source: 2010 Annual Reports for EnergyNorth and Northern." The DOE states that the information in reference (2) is from the 2000 U.S. Census, not 2010.

customers' actual metered usage provided by the utility, (b) the DOE data represents statewide usage, and (c) the studies presented by Messrs. Palma and Gelineau have not been verified by third parties. Transcript Day 2, at 222 – 225. The actual number of electric heating customers served by distribution utilities regulated by this Commission is critical to the consideration of fairness and undue preference discussed below. The electric utilities know their customers and the customers' end uses of the service better than outside data resources.

The utilities' direct testimony gave an example of how many of their residential customers actually use electricity to heat their homes. PSNH's marketing effort in 2008 discovered approximately 8,500 electric heating customers. Exhibit 29 at 8. In their rebuttal testimony, Messrs. Palma and Gelineau reported on more recent studies by the utilities of customer usage to find how many residential customers of the utilities actually use electric space heating. "The results of our analysis are that 1.3 percent of PSNH and 1.4 percent of UES customers actually use their electric space heating to heat their homes." Exhibit 30, at 4.

There was ample discovery opportunity for the Staff to have asked for verification of the utilities' studies in order to test, verify and determine the reliability of the UES and PSNH's analyses. Tr. Day 2 at 245-246. The Staff could have provided the "third party" verification analysis they claim is missing. That is one of the functions of the Commission Staff. The Staff asks the utilities for their numbers, their spreadsheets, their work papers, and the utilities provide the data. The Staff did not do that here; they merely asked whether the utilities' analyses had been verified by a third party. They undertook no analysis of their own and none is in the record; therefore, the utilities' conclusion of how many residential customers heat with electricity remains unchallenged.

The Staff suggested that the actual statewide number of electric heating customers may be closer to the DOE figure of eight percent. Tr. Day 2, at 223. However, contrary to Staff's testimony, DOE's eight percent figure is not vintage 2010 - - per DOE, the source of that figure is a decade earlier, "Source: 2000 U.S. Census."<sup>5</sup> PSNH is the largest utility in the state serving 419,225 residential customers or 70 percent of all residential customers and UES serves 63,405 residential customers or 11% of the state.<sup>6</sup> The number of PSNH's residential customers combined with the number of UES' residential electric customers dwarfs the number of residential customers of Granite State Electric Company and the New Hampshire Electric Cooperative combined. The residential space heating customers of Granite State Electric Company and the New Hampshire Electric Cooperative could not possibly raise the level of space heating to Staff's claim of 8%. Furthermore, statewide numbers are irrelevant as only PSNH and UES are seeking permission to operate the HPwES fuel neutral program. Mr. Gelineau and Palma presented primary evidence of the actual number of residential customers in the PSNH and UES service territories that use electricity to heat their homes and might qualify for HPwES services. The DOE numbers are outdated, less reliable, secondary evidence applying to all of New Hampshire, not specifically to the service territories of PSNH and UES the proponents of the HPwES program.

There is no justification for throwing gas customers in to the mix of Schedule 1. There is no direct evidence or proposal before the Commission that gas utilities want or plan to operate a fuel neutral program. Only UES and PSNH are seeking permission in this proceeding. Exhibit 36 was co-sponsored by Mr. Palma who also represents Northern Utilities, a natural gas utility.

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<sup>5</sup> <http://apps1.eere.energy.gov/states/residential.cfm/state=NH>

<sup>6</sup> Based on 2010 US Energy Information Administration data, the most recent year for which data is available.

The response clearly states “The gas HPwES program is not a fuel-neutral program, so 100% of participants in that program heat their homes with natural gas as their main fuel for space heating.” The response in Exhibit 36 also states that 98% of the therms sold by the two New Hampshire natural gas utilities are used for space heating. These customers pay an energy efficiency surcharge as part of the LDAC. These LDAC revenues are used to fund the gas utilities’ energy efficiency programs including their HPwES program. The gas utilities will have no problem in finding natural gas heating customers who pay higher energy efficiency/LDAC revenues than natural gas customers who do not heat with gas. UES and PSNH testified that electric space heating customers are less than 2% of their customer bases, and they do not respond in great numbers to marketing efforts such as the 2008 PSNH outreach effort.<sup>7</sup> All electric utilities may be planning to offer a fuel neutral HPwES program in the future, but the same cannot be said for natural gas utilities.

There is no basis to apply a “holistic approach” (Tr. Day 225-226) unless the goal is to inflate the numbers for the Group 1 fairness argument. Gas customers have their own, separate weatherization program, and electric customers of PSNH and UES have theirs. Staff abandons their reverence for “reliable” DOE numbers and actually uses “inherently unreliable” figures reported by New Hampshire natural gas utilities. Exhibit 35, Schedule 1, footnote 4. In this footnote 4, Staff conducts some questionable mathematics by attributing heating usage of all New Hampshire households to equivalent usage of the average of customers of Northern Utilities

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<sup>7</sup> When asked for “a reference that allows the natural gas companies to fund oil, propane, or wood heat weatherization projects, the Staff responded: ”Our testimony is based on an illustration that reflects natural gas ratepayers in Group 1 because it is our understanding that the Natural Gas Utilities intend to implement the HPwES program in the future (Reference Staff Testimony, page 3, footnote 1). Exhibit 56. The footnote in question provides no greater explanation other than to restate the same Staff understanding, “The ‘fairness issue’ that we address pertains to all utilities. Although PSNH and UES are the only electric utilities proposing to implement a full scale fuel-neutral HPwES program at this time, it is our understanding that all utilities plan to offer this fuel-neutral program in future years.” Exhibit 35 at 3.

and National Grid. The annual reports of consumption figures filed by the gas utilities appear to be reliable when used for Staff's purposes. When presented with consumption figures supplied by the electric utilities, supported by sworn testimony in this proceeding, and subject to discovery and cross examination, Staff performs a complete about-face and deems the electric utilities' information to be unreliable without third party verification.

In footnote 4, Staff converts those gas consumption figures from MMBTUs per customer to therms per customer, and converts those therms to kilowatt hours. Through this statistical magic, Staff attempts to show that the natural gas space heating customers are paying way too much SBC revenues compared to the benefits these customers receive. It is axiomatic that natural gas heating customers only pay SBC charges on their power and light usage and are eligible to receive HPwES benefits by way of their LDAC surcharge. Staff responds "Furthermore, the benefits that we're trying to measure against this surcharge are apples-to-apples. We're trying to measure total holistic benefits against total collections." Tr. Day 2 at 227. Although Schedule 1 attempted to show gas customers' contribution to the surcharge costs, Schedule 1 fails to include any gas benefits (Tr. Day 2 at 228- 229). Attorney Goldwasser easily showed the Staff exactly where those numbers could be found in the same attachment to the Settlement Agreement. Exhibit 23, Attachment "Updated 2012 CORE New Hampshire Energy Efficiency Programs (Electric and Gas)" at 91; Tr. Day 2 at 249-250.

**3. Ancillary Savings are Significant but are Currently Not Capable of Estimation with Sufficient Precision in order to Claim Savings for the Performance Incentive.**

The electric savings achieved through the HPwES in 2011 was eight percent. Tr. Day 2 at 139. This amount does not take into account ancillary electric savings resulting from

weatherization, i.e. reduced pumping of forced hot water heating or reduced blowing of heated air and reduced air conditioning. PSNH and Unitil have yet to be able to accurately estimate ancillary savings and have not included an estimate in their filing. Staff noted that the utilities did not track, report or include ancillary savings in their filing and concluded the savings were minor. Exhibit 35 at 10. Staff refused to agree with the simple suggestion that if a home is weatherized the furnace will run less and the air conditioning would run less. Tr. Day 2 at 217.

The absence of any claim to ancillary electric savings in the utilities' filing was explained by Mr. Gelineau:

Up until very recently, we really didn't have a whole lot of data that was based on work that we had done here in New Hampshire. And, it's for that reason that we did not put forward savings, because those savings would then go into our performance incentive. And, we just didn't feel as though the level of knowledge that we had would support its use in the calculation of a performance incentive. That doesn't mean that we felt that these savings do not exist. That doesn't mean that we feel as though these savings shouldn't -- that we should not pursue quantifying these savings. It just meant that we did not have an appropriate number to use in our filing.

Tr. Day 1 at 68

The utilities' filing included only savings which could be accurately estimated and verified after the fact because the savings figures claimed by PSNH and UES in its filing would be counted for the savings calculation under the performance incentive. The utilities fully intend to have Cadmus complete a study estimating all of the electric savings, including ancillary savings, expected to result from the HPwES services and make that study available to the parties when the study is complete. Tr. Day 1 at 98.

The estimates varied widely of ancillary savings resulting from weatherization attributable to reduced operation of the furnace pump or furnace fan. The savings estimates included: (1) a preliminary figure of 42 kilowatt-hours from Cadmus based on their recent

impact evaluation, (2) a value of 70 kilowatt-hours included in the Mass Technical Reference Manual and (3) the GDS Study estimates a savings of 393 kilowatt-hours from the installation of high efficiency pumps or fans on the boiler or furnace. Tr. Day 1 at 69-72. The GDS Study estimates an additional 1052 kilowatt-hours of ancillary electric savings. *Id.*<sup>8</sup> There is no information in the record to suggest how many kilowatt-hours of energy or kilowatts of demand at peak would be saved in air conditioning after homes are weatherized. The utilities have been criticized in the past for having made estimates for the performance incentive purposes which are too easy to achieve; therefore, the utilities did not include ancillary savings as deemed savings in their filing. If a home is weatherized after qualifying under the Home Heating Index, we could all draw a logical inference that electric savings will result in the reduced operation of heating and cooling appliances. The utilities are committed to resolving the seeming discrepancies among these three respected sources and to arrive at a defensible estimate for ancillary savings. The opportunity to capture these savings should not be foregone by not allowing the fuel neutral HPwES Program to proceed.

**4. There Is No Fairness Issue; However, Offering Weatherization Exclusively to Electric Space Heating Customers (Staff Option 1) May Constitute an Undue Preference.**

Early on the Commission determined that it was legally permitted to use System Benefits Charge funds to pay for nonelectric measures. Order No. 24,930, *supra*. The Staff continues to assert that it is not sound policy for the Commission to allow SBC revenues to be used for

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<sup>8</sup> “So, the quick story is that there's a very substantial higher number that has been incorporated in a study that had been commissioned by this Commission, which would lead one to believe that there are, you know, very substantially more savings than what it is that has been identified to date in the Cadmus study or in the Technical Reference Manual in Massachusetts. And, I think that it's that kind of information, conflicting information, that we're trying to, you know, we want to resolve before we land on any particular number.” Tr. Day 1 at 72

nonelectric savings. Much emphasis has been placed on a section of the restructuring statute, RSA 374-F:3,VI, which provides in part that “Restructuring of the electric utility industry should be implemented in a manner that benefits all consumers equitably and does not benefit one customer class to the detriment of another. Costs should not be shifted unfairly among customers.” Arguably these sentences apply broadly to restructuring generally and do not single out energy efficiency programs. The SBC provides the funding for these programs; however, energy efficiency programs delivered by the electric utilities pre-dated the Restructuring Law. Staff has raised the issue of fairness which PSNH will address. PSNH asks the commission to decide the fairness issue once and for all.

Costs in the CORE programs are not shifted unfairly between customer classes because the practice has been to allocate SBC revenues for CORE programs based upon revenues contributed from the industrial and commercial classes as a group and the residential class. Thus, there is no unfair shifting of costs between customers because the residential customer class and nonresidential customer classes receive program benefits in direct relation to each class’ contribution to SBC revenues.<sup>9</sup> There are no separate classes for residential space heating customers and other residential customers.

The term “public benefits” is also part of the purpose of the System Benefits Charge definition in RSA 374-F:3, VI. The reason PSNH and UNITIL referenced the Climate Action Plan, the GDS study and the VEIC study is because the state has laid out a clear path to several goals which benefit the public at large, not just the public as defined by the terms of the utility’s tariff. There are public benefits to weatherizing low income customers’ homes under the Home

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<sup>9</sup> Funds for the Home Energy Assistance program are deducted before the SBC revenues are split between residential class and commercial and industrial classes. The Commission has continuously approved this treatment (i.e. it is fair) even though commercial and industrial customers could never participate in the Home Energy Assistance program.

Energy Assistance program even if SBC funds pay for nonelectric measures. Low income families may be better able to afford all of their energy, including their electric bills after receiving HEA services. The same could be said for maximizing efficiency in the construction of Energy Star Homes, even if SBC funds support nonelectric measures. The opportunity lost once the house is built can never be recaptured. The public benefits achieved through the HPwES program, cleaner air, reduced greenhouse gases, reduced dependence on fossil fuels, and a redirecting of oil dollars destined for overseas to weatherization jobs aiding New Hampshire's economy are enjoyed by all customers who pay into the SBC but may not participate directly in the CORE programs.

Using proceeds from the Regional Greenhouse Gas Initiative ("RGGI") auction are no cure for the fairness argument. Staff Option 2, Exhibit 35 at 22. RGGI funds are collected through the utilities' energy service charges on a cents per kilowatt-hour basis. Using Staff's logic, electric space heating customers use and pay for more kilowatt-hours than power and light customers; therefore, these customers pay more RGGI costs than the electric customers who heat with a fossil fuel. Although the Staff sees RGGI funds as an alternative to using SBC funds for nonelectric measures, RGGI funds are collected from electric customers in the same way SBC funds are collected. Thus Staff's fairness argument applies equally to the use of RGGI funds for non-electric measures as it does to the use of SBC funds for non-electric measures. Staff's Option 2, therefore, is inconsistent with Staff's position with respect to the fairness of using SBC funds for nonelectric measures.

RSA 378:10 prohibits any undue preference or undue discrimination; however, absolute uniformity is not required. RSA 378:11. Electric space heating customers are not discriminated against under a fuel neutral HPwES because many of these customer locations have already been

served by HPwES, the Home Energy Solutions program and previous programs providing weatherization services since the utilities began their energy conservation programs. PSNH and UES will continue to search for and market to electric space heating customers. If weatherization services are restricted to electric space heating customers, a market barrier<sup>10</sup> will be created, and an undue preference will be established on behalf of the electric space heating customer. The record is clear that this group of customers who use electricity for space heating now represents a very small percentage of all electric customers, customers who have already been offered and provided weatherization services for many years. Ninety eight percent of the customers supporting services to only two percent of the customers constitutes an undue preference under RSA 378:10.

#### **5. The Performance Incentive Should Be Allowed on All Energy Savings.**

The performance incentive focuses attention on the results of delivering the programs so that the utilities are encouraged to maximize savings in a cost effective manner. The performance incentive is no longer about compensating the utilities for lost revenues. The previous mechanism, lost fixed cost revenue recovery, went away with the advent of the CORE programs. The utilities may earn a performance incentive, but it is only applicable for one year. The lost revenues in year two and beyond resulting from energy efficiency measures installed in year one do not get taken into account until the utility's next rate case. Utilities' performance in HEA and Energy Star Homes allows earning an incentive on nonelectric savings. The

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<sup>10</sup> "Running programs that attempt to isolate and target energy efficiency to a single fuel source, such as electricity, may in itself be a market barrier when energy efficiency measures delivered as a comprehensive package, such as systematic whole house retrofits that reduce multiple energy uses and costs, including the size and cost of high efficiency replacement HVAC systems, may be the overall most cost-effective approach to achieving energy efficiency and conservation of all fuel sources." Order No. 24,930 at 20.

performance incentive is all about saving energy; therefore, the utilities ought to be able to earn an incentive on all energy saved as is the case for all other CORE energy efficiency programs.

**6. Conclusion.**

If the Commission believes PSNH ought to do more for the electric space heating customer and explore more electric savings, PSNH would be willing to explore such opportunities. However, rejecting the HPwES program is not the way to assist these customers. PSNH has done all it has been asked to do. It has continued the pilot program for close to three years. The analyses show a great program run well by the utilities and appreciated by the participating customers. PSNH and Unitil have incorporated most of the changes suggested in the evaluation studies. Staff is alone in its opposition to the ways PSNH and Unitil have carried out the policy directions contained in previous orders.

In conclusion, PSNH respectfully requests that the Commission approve implementation of the HPwES program as proposed.

Respectfully submitted,

**Public Service Company of New Hampshire**



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July 9, 2012  
Date

CERTIFICATE OF SERVICE

I hereby certify that, on the date written below, I caused the attached Closing Statement to be hand delivered or sent electronically pursuant to Puc § 203.02 and Puc § 203.11.

July 9, 2012  
Date

  
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Robert A. Bersak